

More Severe Illness, Increasingly Complex Needs: A 10-Year View on New Jersey's Patient Population

KEY FINDING Patients in New Jersey are arriving at the hospital with increasingly severe illnesses. In 2025, the share of hospital patients with either major or extreme severity of illness climbed to 47% – continuing a decade-long trendline.

Data spanning a decade of hospital admissions in New Jersey confirms a rising trend: Patients are entering the hospital with higher levels of severity than ever before. NJHA and its Center for Health Analytics, Research and Transformation (CHART) last examined the severity levels of patients entering the hospital in 2023. It was the waning weeks of the pandemic, and New Jersey's systems of care were contemplating a "new normal" following the nation's most disruptive health event in a century. The report provided an important snapshot, showing a 21% increase in the proportion of hospitals admissions classified as major or extreme between 2019 and 2022.

This report revisits that analysis, now spanning a 10-year trend in patient severity levels from 2016 to 2025. It examines the shifting balance in patient severity levels, while also exploring the impact of an aging population, chronic conditions and a surprising new factor associated with increased severity.

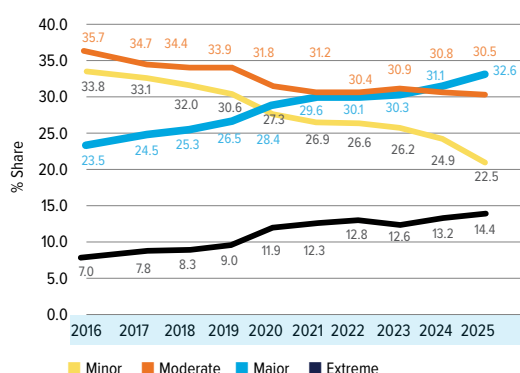
Rising Severity of Illness

This study is based on CHART's analysis of discharge data as captured in the [New Jersey Hospital Discharge data](#) for 2016 to 2025. Hospitalized patients are assigned an [All-Patient Refined Diagnosis Related Group \(APR-DRG\)](#) severity of illness score ranging from 1 to 4 where 1 = minor severity, 2 = moderate severity, 3 = major severity, or 4 = extreme severity.

The "Severity of Illness for All Patients" graph below (Figure 1) tracks the distribution of all inpatient discharges across the four severity-of-illness categories from 2016 through 2025. Discharges over the 10 years covered averaged approximately 884,000 annually, ranging from just over 912,000 in 2016 to 818,000 in 2020. Discharges for the most recent year (2025) totaled 910,000.

The data show a clear shift toward higher-severity classifications over the period: Discharges with a severity of illness of Minor fell steadily from 33.8% of all discharges in 2016 to 22.5% in 2025, while discharges classified with a Moderate severity of illness declined more modestly, from 35.7% to 30.5%. Over the same span, discharges with a severity of illness of Major rose from 23.5% to 32.6%, and discharges classified as Extreme more than doubled, from 7.0% to 14.4%.

FIGURE 1. Severity of Illness for All Patients



**▲
54.1%**

Illnesses
classified as
Major or
Extreme
increased
54.1%
between 2016
and 2025.

Taken together, the combined share of discharges with a severity of illness of either Major or Extreme grew from 30.5% in 2016 to 47.0% in 2025 – an increase of 16.5 percentage points, or roughly 54.1% in relative terms – indicating that a substantially larger proportion of hospitalized patients statewide are now being classified with more serious illness severity than a decade ago, even as overall discharge volume has remained roughly flat.

Drivers of Severity

Data also provides insight into some of the factors driving the rise in severity among hospitalized patients in New Jersey.

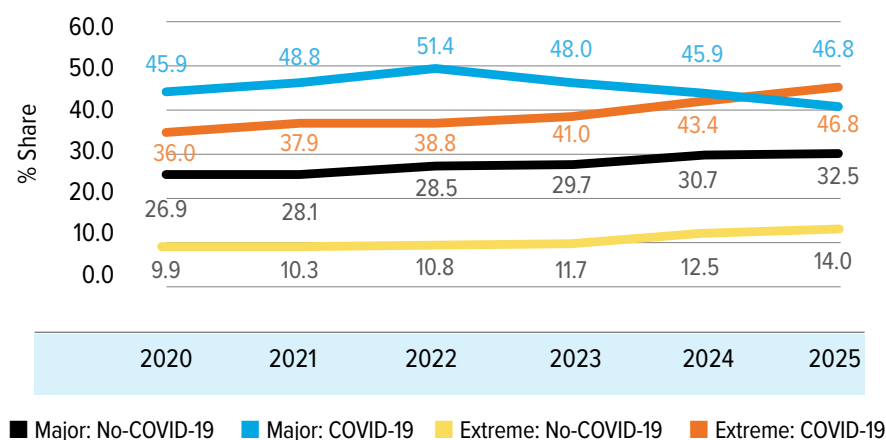
AGING POPULATION. New Jersey’s population has aged steadily over the same period examined in the discharge data. [State Health Assessment Data](#) show that the proportion of New Jersey residents aged 65 and older increased 33% between 2010 and 2024, while the number of residents in that age group grew 43% over the same span. By 2024, adults 65 and older numbered about [1.71 million](#) and made up roughly 18% of the state’s population, and New Jersey’s median age (40.1 years) now exceeds the national median (39.2 years). This demographic shift is a plausible contributor to the rising share of Major/Extreme discharges, since older patients are more likely to present with comorbidities and higher-severity conditions at admission.

CHRONIC DISEASE PREVALENCE. Rates of major chronic conditions among New Jersey adults have also climbed over the past decade. N.J.’s Behavioral Risk Factor Survey ([NJBRFS](#)) data show the age-adjusted prevalence of adult obesity rising from 23.2% in 2011 to 27.9% in 2024, and the age-adjusted prevalence of diagnosed diabetes reaching 9.2% in 2024, with notably higher rates among Black (14.2%), Hispanic (11.9%), and Asian (10.0%) adults compared with White adults (7.4%). High blood pressure remains widespread as well, with 27.8% of adults in 2021 reporting they had ever been told by a health professional that they had high blood pressure. These trends in obesity, diabetes, and hypertension – all established drivers of higher-severity hospitalizations – track the same direction as the growing Major/Extreme share observed in the discharge data.

PANDEMIC’S CONTINUED IMPACT. CHART also explored whether the emergence of COVID-19 has had a sustained impact on patient severity. The data confirms that COVID-19 – now an endemic illness – is associated with higher patient severity levels.

Figure 2 shows that the shares of patients with major and extreme severity illness scores remain substantially higher among COVID-19 patients than among non-COVID-19 patients. In 2020, 26.9% of non-COVID-19 patients were classified as major severity compared with 45.9% of COVID-19 patients—a 19-percentage-point difference. By 2025, this gap remained large at 10.7 percentage points (32.5% vs. 43.2%). For extreme severity, the disparity in 2025 was even more pronounced: 14.0% of non-COVID-19 patients were classified as extreme severity compared with 46.8% of COVID-19 patients, a 32.8-percentage-point difference.

FIGURE 2. Major and Extreme Severity of Illness Scores: COVID-19 VS. Non-COVID-19



▲
234%

**In 2025,
patients with
COVID had an
Extreme severity
of illness at a
rate 234% more
than non-COVID
patients.**

The average age of hospitalized patients has been consistently higher — and rising more rapidly — among those with COVID-19, while increasing only modestly among patients without COVID-19. For example, the average age of COVID-19 patients was 63.1 years in 2020, declined to 61.2 in 2021, and then rose sharply to 70.7 by 2024 — an increase of about 15.5% from 2021 to 2024. By comparison, patients without COVID-19 had an average age of 50.6 in 2020, 50.8 in 2021, and 52.4 in 2024, a 3.1% increase over the same period. Overall, these trends indicate that COVID-19 has now become an exacerbating risk factor for many patients, especially for older individuals.

Discussion

Hospitals are treating patients who are both older and more severely ill, as reflected in the rising shares of cases classified as major and extreme severity throughout the 10-year study period. These shifts signal that the clinical needs of hospitalized patients are becoming increasingly complex, driving the need for continual adjustments in service capacity, staffing models and care delivery approaches.

COVID-19, now endemic in the community and increasingly appearing as a [secondary diagnosis for most patients](#), continues to contribute to higher overall patient severity. However, the sustained rise in severe illness levels is unlikely to be attributable to COVID-19 alone. Broader factors — such as an aging population and the growing prevalence of [chronic diseases](#) — also appear to be driving the continued shift toward a more complex and higher-acuity patient case mix.

For healthcare stakeholders and policymakers, these findings underscore the importance of planning for a future in which patients are older, have more chronic conditions and require more complex care. Ensuring adequate workforce capacity, strengthening care coordination across settings, expanding access to post-acute and community-based services and supporting efforts to prevent and better manage chronic disease will be critical to maintaining access, quality and sustainability in the healthcare system as patient severity continues to increase.