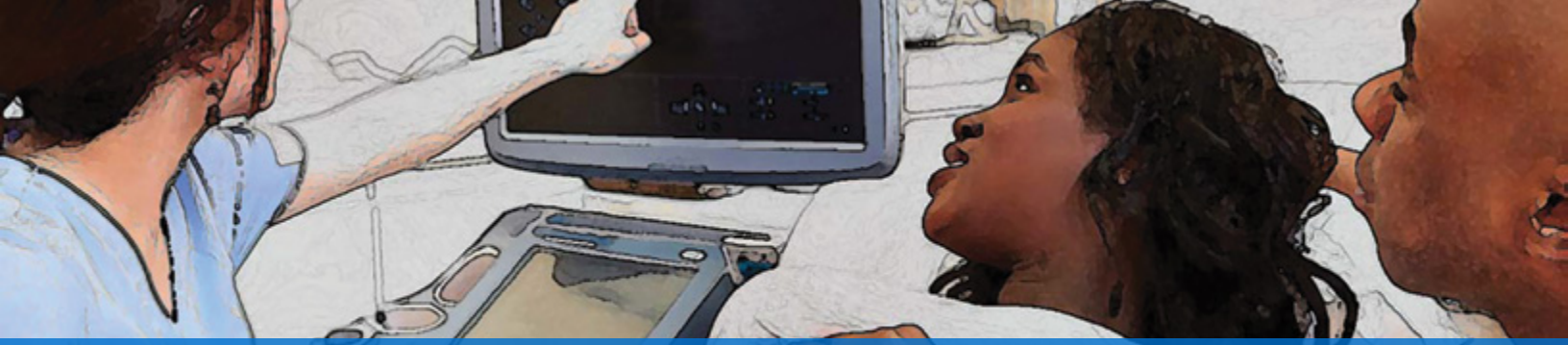
Path to Progress

New Jersey Perinatal Quality Collaborative | *2017-2022 Review*

To health!
NJHA
New Jersey Hospital Association



Path to Progress | New Jersey Perinatal Quality Collaborative | 2017-2022 Review

Perinatal Quality Collaboratives – or PQCs - are networks of clinical teams, public health leaders, stakeholders, patients and families and other partners that work together to improve pregnancy and infant outcomes. PQCs are a platform for participants to learn collaboratively, use a rapid cycle improvement framework and focus on population-based improvements.

In 2017, the Centers for Disease Control and Prevention recognized the work of New Jersey's birthing hospitals to improve care and funded the New Jersey Hospital Association to support the formal organizing of its PQC. The work is rooted in well-established partnerships among its members that date back to an original collaborative formed in 2008 to address birth outcomes in New Jersey. The CDC recently renewed New Jersey's PQC for another five-year period, allowing the partners to continue their path to progress for New Jersey families. This report presents the work of New Jersey's Perinatal Quality Collaborative on the fifth anniversary of its CDC designation, including measurable improvements in three key maternal health indicators - Cesarean delivery, hypertension and maternal hemorrhage. It shows that maternal morbidity was reduced and more than 10,000 C-sections were prevented as New Jersey hospitals implemented PQC best practices in caring for pregnant individuals.

10,000 C-sections prevented and maternal morbidity reduced

Background

The people of New Jersey make it a state that is vibrant and rich in diversity. But these same attributes can present challenges that impact birth outcomes.

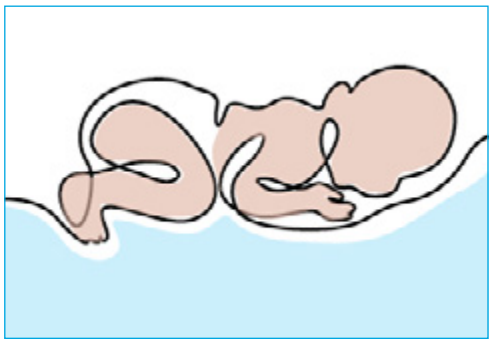
- With approximately 9.3 million residents spread over 7,350 square miles, New Jersey is home to 1,261 residents per square mile, making it the most densely populated state in the country.
- New Jersey's population is 71 percent white, 15.3 percent Black, 10.3 percent Asian and 2.4 percent of two or more races. The Hispanic/Latino population accounts for 23.15 percent. [1)] *Census Bureau data. White, Black and Asian data includes Hispanic/Latino population.*
- 31.6 percent of the population speak a language other than English in their home.

There were 44 pregnancy-related deaths in New Jersey from 2016 through 2018 (deaths that resulted from complications due to pregnancy during or within one year of pregnancy). Among those cases, approximately 30 percent were attributed to hemorrhage and hypertensive pregnancy disorders. And the evidence shows that persons of color experience much higher rates of both incidence and mortality from these serious birth complications.

Those challenges have shaped New Jersey's PQC approach, with leadership from the NJHA Board of Trustees and strong commitment from the state's birthing hospitals. The interventions involve many teams working together forming a "community of healthcare" that serves as an incubator for collaboration, coordination and transitions of care, recognizing that it requires the entire continuum of healthcare providers working with patients and their families to deliver the best outcomes for N.J. residents.

The NJPQC's data-driven approach uses structure, process and clinical outcome metrics to assess progress by comparing pre- and post- interventions. Whether it is Cesarean delivery, hypertension/preeclampsia or hemorrhage rates, the convening of N.J. hospitals under the NJPQC umbrella ultimately resulted in reduced risk of severe maternal morbidity across all communities in the state.

Cesarean-Section Births

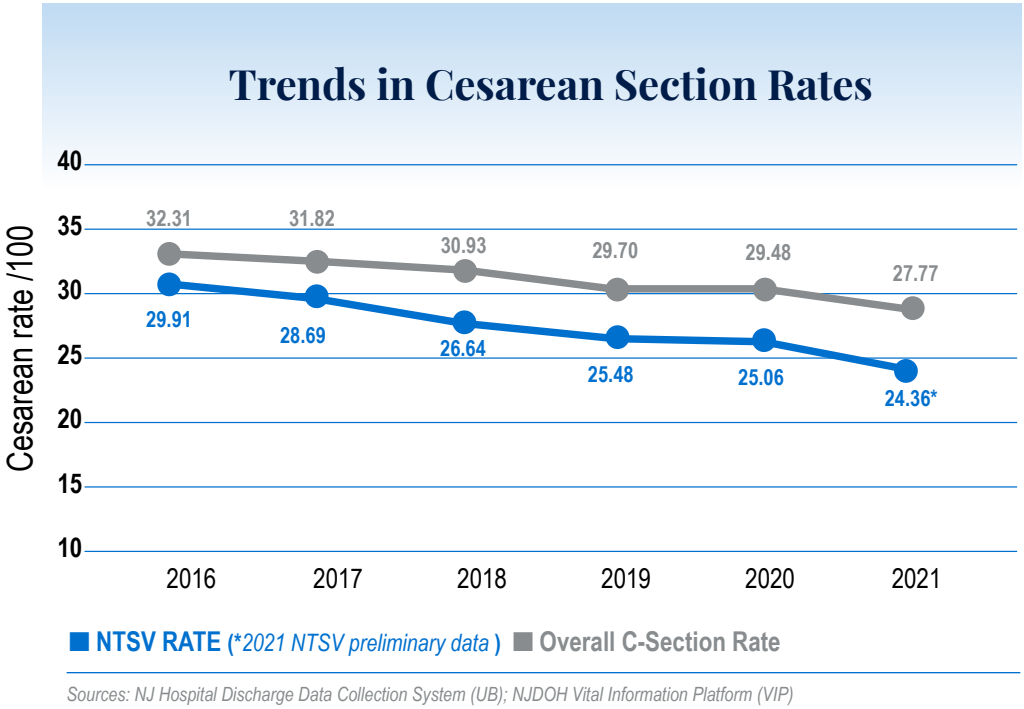


In 2016, nearly one-third of births in New Jersey occurred via Cesarean-section, ranking the state among the highest in the nation. At the time rates could vary almost threefold across the state. Although C-sections are a valid and medically necessary procedure in many births, they are a more invasive procedure than vaginal delivery and can pose added risks including surgical site infections. The goal is to reduce the number of overall C-sections, and especially in first-time pregnancies where the baby is at full term, in the right position and with no identified medical risks. The medical term for these births is nulliparous, term, singleton, vertex, or NTSV.

By 2017, all of New Jersey's birthing hospitals were participating in shared learning under the PQC that would help to drive change in NTSV rates. In partnership with the Alliance for Innovation in Maternal Health (AIM), New Jersey's PQC hospitals implemented the AIM Cesarean birth bundle. The bundle includes best practices to support awareness and education of C-section reduction; support parents in intended vaginal births; manage labor complications to safely reduce C-sections; and use data to drive improvement.

The statewide average rate in overall C-section deliveries breaks down this way for specific populations, based on 2020 data:

- White 23.2
- Black 28.8
- Asian 29.0
- Hispanic 24.8



Sources: NJ Hospital Discharge Data Collection System (UB); NJDOH Vital Information Platform (VIP)

What we accomplished

Hospitals' collaborative work with the NJPQC helped spark a 14 percent decline in New Jersey's overall C-section rate, from 32.31 in the 2016 baseline year before the NJPQC's CDC recognition to 27.77 in 2021, the final year of the initial five-year initiative. That 14 percent decrease in New Jersey's overall C-section rate equates to 10,010 C-sections averted.

Similar improvements were documented in the NTSV C-section rate. That's an important development because an initial C-section often leads to C-sections in subsequent pregnancies, elevating the C-section rate over time. New Jersey's NTSV C-section rate declined 18.6 percent from 2016 (29.91) to 2021 (24.36). That improvement means that a projected 5,875 NTSV C-sections were averted.

How we did it

- Strong patient and family engagement in education, informed consent and shared decision-making
- Provider education and training that maximizes the likelihood for vaginal birth
- Pain management and comfort techniques that promote labor progress
- Standardized methods for assessing fetal heart rate status
- Timely identification of problems so that proactive interventions can increase likelihood for vaginal birth

Hypertensive Disorders in Pregnancy

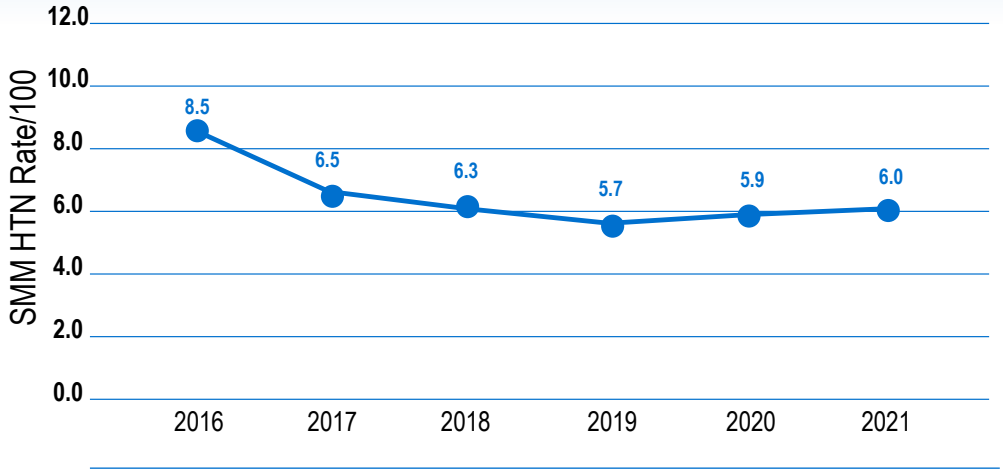
Between 2014 and 2016, hypertensive disorders in pregnancy were among the leading causes of severe maternal morbidity and mortality in New Jersey. These disorders can include chronic hypertension, pregnancy-related hypertension and preeclampsia, a serious condition that can develop after 20 weeks of pregnancy with persistent high blood pressure that can impact the function of various organs.

In January 2017, New Jersey's PQC began implementing the Severe Hypertension in Pregnancy patient safety bundle from the Alliance for Innovation on Maternal Health (AIM.) Implemented in 36 of the state's 48 birthing hospitals, the bundle includes standardized best practices that focus on early recognition of hypertension in pregnant people along with management and treatment.

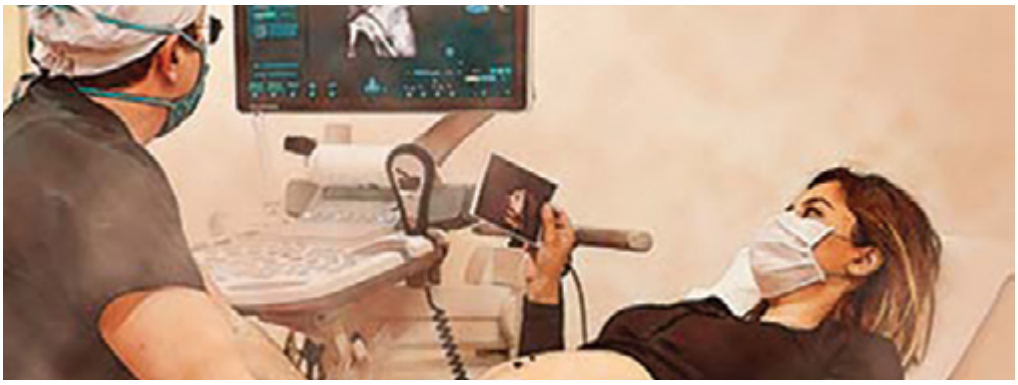
The 2021 rate for specific populations is as follows:

- White 5.1
- Black 7.4
- Asian 5.6
- Hispanic 6.0

Trend in Hypertension/Preeclampsia Rates



Sources: NJ Hospital Discharge Data Collection System (UB); NJDOH Vital Information Platform (VIP)



What we accomplished

The rate of hypertensive disorders declined 29.4 percent among pregnant people from the baseline year of 2016 (8.5) to 2021 (6.0).

How we did it

- Standard protocols for maternal early warning signs
- Timely triage and escalation plans
- Screening for social drivers of health and factors including literacy, cultural needs and language differences
- Standardized checklists to direct the response based on early warning signs, patient-reported and observed symptoms and laboratory testing
- Review of outcome and process data, segmented by race and ethnicity

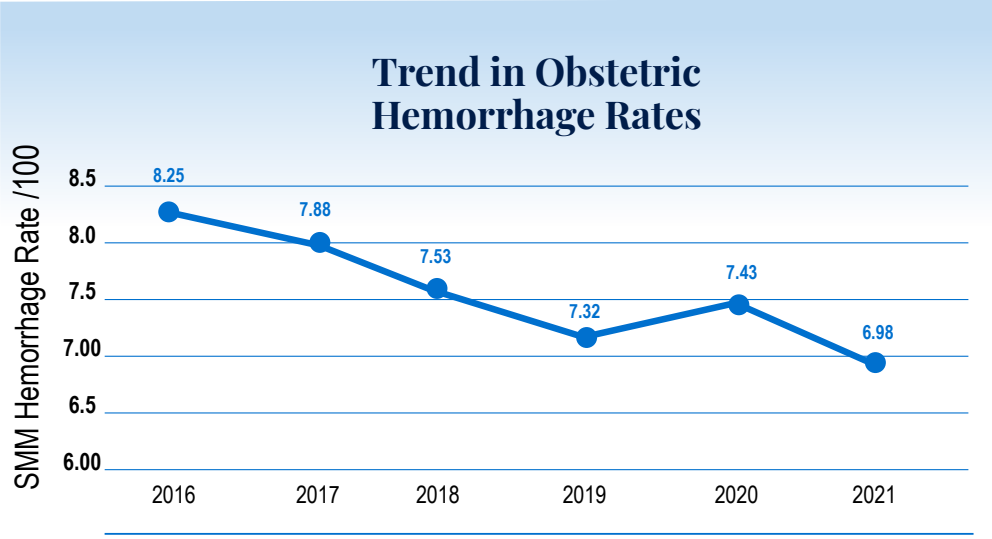
Obstetric Hemorrhage

At the foundation of all NJPQC work is our partners' commitment to reducing harm and improving the lives of birthing people statewide. Prior to the formal launch of the NJPQC, New Jersey's birthing hospitals joined the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) in 2014 to participate in a pilot project on post-partum hemorrhage. This post-partum hemorrhage pilot, with additional sites in Georgia and the District of Colombia, was designed to support clinical teams to prevent related deaths and improve the ability of nurses and providers to prepare for, recognize, respond to and report on postpartum hemorrhage.

Obstetric hemorrhage is one of the most common birth complications, associated with significant blood loss at various points in the pregnancy, but especially during labor, vaginal and C-section delivery and in the postpartum period. The bundle components focus on identifying risk factors for hemorrhage at various points in pregnancy and post-pregnancy, along with best practices in medication protocols to promote clotting and controlling blood loss.

The 2021 rate for specific populations is as follows:

- White 6.3
- Black 9.9
- Asian 8.2
- Hispanic 5.7



Sources: NJ Hospital Discharge Data Collection System (UB)

What we accomplished

Maternal hemorrhage rates fell from 8.25 in 2016 to 6.98 in 2021, a 15.4 percent decline.

How we did it

- Designated rapid response teams for quick intervention in hemorrhage emergencies
- Advanced response plans, based on individual's hemorrhage risk
- Obstetric hemorrhage emergency management plans, with checklists
- Team-based drills
- Active measurement and team communication of blood loss

Additional Focus Areas

Reducing Implicit Bias in Maternal and Child Health

A growing body of evidence shows that Black and Brown persons are more likely to die from a pregnancy-related cause than White persons. Multiple factors contribute to the long history of systemic racism and social determinants that produce disparate health outcomes for people of color.

To help identify and address implicit bias in healthcare, NJHA produced an on-demand open-access education program, developed with the help of hospitals and community partners, that examines the implicit biases that feed these disparities. Addressing these biases is key for improving patient-provider interactions, health communication and health outcomes. The course breaks down the conscious and unconscious biases within all individuals; describes their impact on healthcare access and treatment; and explores interventions to defuse them.

https://education.njha.com/courses/43377

COVID-19

The arrival of COVID-19 in New Jersey in March 2020 disrupted the NJPQC's work plan as hospitals redeployed staff and resources to respond to the public health emergency. The pandemic also brought with it new risks and concerns for pregnant persons and those of childbearing age, and many studies nationally confirmed that those who contract COVID-19 during pregnancy are at greater risk for serious illness and hospitalization. Birthing facilities deployed protocols for testing mothers and their partners, and policies for visitors were adjusted to protect against transmission of the virus. Faced with a novel virus for which there were no available treatment protocols, the state's birthing hospitals also joined in provider calls with the New Jersey Hospital Association to address key clinical considerations to protect parents, newborns and staff. Consensus was built for protocols such as cohorting staff and patient rooms to limit viral transmission; droplet precautions during labor; the appropriate use of supplemental oxygen, IV fluids and other medications; and safe processes for cord clamping and handling placenta.

Despite the pandemic's massive disruption, hospitals remained focused on harm reduction efforts which resulted in a decrease in overall Cesarean-birth rates to 29.48 in 2020. By the end of 2021, rates decreased again to 27.82. Similarly, NTSV rates deceased from 25.53 to 25.07 in 2020.

When the COVID-19 vaccine became widely available in 2022, NJHA also developed a multi-module course to address vaccine hesitancy among vulnerable populations, with an emphasis on pregnant and recently pregnant individuals, and the strategies healthcare professionals can implement to address these issues.

https://education.njha.com/courses/44418

Garden State Patient Safety Center

For New Jersey hospitals, including the birthing hospitals engaged with the NJPQC, the Garden State Patient Safety Center is a valuable resource to drive improvements in healthcare quality and patient safety. The GSPSC is the only Patient Safety Organization (PSO) in New Jersey. It is certified by the U.S. Agency for Healthcare Research and Quality. The GSPSC offers a number of learning opportunities, including a Safe Tables series. Safe Tables are shared learning events where clinicians and healthcare teams can come together in a privileged environment to have the "difficult discussions" that act as the catalyst for improved care, outcomes and safety. The GSPSC's maternal health Safe Tables have hosted U.S. Department of Health and Human Services officials in sessions that addressed neonatal abstinence syndrome, caring for individuals in marginalized populations, opioid use disorder and long-term cardiac function for individuals with hypertension.

https://www.njha.com/maternal-child-health/patient-safety/

Data and Coding Accuracy

Diagnosis codes are critical parts of a patient's medical record, but they also provide a body of data that can help drive healthcare improvements. These codes are used in the aggregate and de-identified to protect individuals' privacy. Accurate coding is essential to produce data that helps to inform practice. Through the support of AIM, NJHA developed a series of coding workshops for hospital information management coders statewide. "Accurate Coding for Improved Quality Measures" provided an overview of risks and complications with unnecessary NTSV Cesarean-sections, coding and documentation guidelines for inpatient and outpatient settings, and the implications that coding rules, conventions and guidelines have for clinical quality and financial metrics. A second session, "Coding for Coagulopathy: Severe Maternal Mortality," addressed disseminated intravascular coagulation – a common contributor to maternal morbidity and mortality – aimed at reducing the risk of conflating postpartum thrombocytopenia, blood loss anemia and postpartum DIC.

Accurate Coding for Improved Quality Outcomes; *https://education.njha.com/courses/48852*

Coding for Coagulation: Severe Maternal Mortality *https://education.njha.com/courses/48159*

Maternal-Child Health Website

Partnership and collaboration are essential to achieve New Jersey's goals in giving every mother and baby an opportunity for good health. Because successful outcomes also rely on factors beyond hospital walls, NJHA and the NJPQC work closely with leaders like First Lady Tammy Murphy and the Nurture NJ campaign. Other critical partners include the N.J. Department of Health and its Maternal Mortality Review Committee, Maternal Data Center and Maternal Care Quality Committee. Paramount to the collective goals of all partners has been the importance of a one-stop source for resources, information sharing and educational opportunities. The updated NJHA Maternal and Child Health website is evolving as that valuable shared resource.

https://www.njha.com/maternal-child-health/

The Next 5 Years

In September 2022, the CDC looked to New Jersey's successes in improving maternal health and pregnancy outcomes and awarded the NJPQC a second cycle of funding. Along with 27 PQCs nationally, New Jersey will spend the next five years strengthening and expanding its efforts to reduce harm by implementing quality improvement initiatives with an emphasis on disproportionately impacted populations. Key activities will include:

- Implementing the AIM Care for Pregnant and Postpartum People with Substance Use Disorder bundle and working with hospitals to understand their readiness to implement the evidence-based model
- Providing technical support and shared learning to support the expansion of Patient and Family Advisory Councils to strengthen their voices and experiences
- Strengthening data systems to inform quality improvement efforts
- Expanding the reach of this collaborative effort to include individuals who have or are planning to give birth, community organizations that work with persons of child-bearing age and healthcare organizations including federally qualified health centers, clinics and other stakeholders.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