Racial & Ethnic Disparities in Severe Maternal Morbidity in New York City & State

Sophie Wheelock, MPH
Mark Zezza, PhD
Jessica Athens, PhD

New York State Health Foundation
Why Study Severe Maternal Morbidity in NY?

- Maternal mortality rates have increased over the last 30 years nationwide, with staggering disparities by race and ethnicity.¹
- For every maternal death, there are up to 100 occurrences of severe maternal morbidity (SMM).²
- Preventing SMM spares women serious injury, lifelong health consequences, and is a key strategy for reducing maternal deaths.
- In 2017, New York ranked among the top 25% of states with the highest rates of SMM.³
- Highest rates of SMM in the State occur in NYC, with large racial and ethnic disparities—even after controlling for other factors.⁴,⁵,⁶ About half of births statewide take place in NYC.⁷

A note on language: We recognize that not all people impacted by maternal health issues identify as women.
Research Methods

• 2011–2018 claims from inpatient admissions using the New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS).

• SMM events identified using procedure and diagnosis (ICD-CM) codes based on 21 SMM indicators developed by the CDC.⁸

• Analyzed ~216,000 deliveries per year (range: 210,971–223,467).
Results: SMM Rates Overall (2011–2018)

- In 2018, 3.1% of deliveries were associated with an SMM event in Queens (835 deliveries).
- The increase in the SMM rate from 2011 to 2018 was driven by an increase in the rate of blood transfusions (an imperfect measure of SMM).

- In 2018, the SMM rate for Black women was 2.3x, Hispanic women was 1.7x, and Asian women was 1.3x the rate for white women.

- These disparities have decreased slightly for Black women, remained the same for Hispanic women, and grown slightly for Asian women since 2011.

Note: Black, Asian, and White women are non-Hispanic or Ethnicity Unknown.
In 2018, racial and ethnic disparities existed in all regions—not limited to NYC.

Compared to white women, SMM rate for:
- Black women was > 100% higher
- Hispanic women > 50% higher
- Asian women was > 40% higher in half of the State’s regions.
Causes of SMM

• Individual and neighborhood factors
  • Pre-existing conditions such as obesity, hypertension, and pre-gestational diabetes
  • Health insurance coverage, educational attainment, and income levels (at the individual and neighborhood levels)

• Hospital Factors
  • Case study reviews suggest up to half of SMM may be preventable with improved hospital quality\textsuperscript{9,10}
  • Problems include insufficient staff development, failure to identify high-risk patients at admission, and substandard care processes or equipment

• Implicit Bias/Structural Racism
  • Growing body of research show wide racial and ethnic disparities remain even after controlling for other factors\textsuperscript{5, 6, 11, 12, 13, 14}
## Recommendations for Action

*Causes of SMM, such as implicit racial bias, have been ingrained in society broadly and the health care system specifically. It is likely that a comprehensive, sustained, and aggressive effort is required to permanently reduce SMM.*

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<thead>
<tr>
<th>Improve Quality of Care</th>
<th>Measure &amp; Monitor</th>
<th>Address Implicit Bias</th>
<th>Expand Role of Doulas, CHWs, and Midwives</th>
<th>Improve Insurance Coverage</th>
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</thead>
<tbody>
<tr>
<td>- Spreading best practices for hospitals to better respond to common maternal morbidity</td>
<td>- Maternal Mortality Review Board (MMRB): multidisciplinary board investigates causes of maternal mortality and morbidity and makes recommendations</td>
<td>- 2018: City engaged private and public health care providers in implicit bias training</td>
<td>- Pilot program to allow Medicaid reimbursement for doula services</td>
<td>- Create a State-funded Essential Plan for undocumented New Yorkers</td>
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<td>- ACOG District II’s Safe Motherhood Initiative</td>
<td>- Data warehouse measuring hospital performance on perinatal quality measures</td>
<td>- Racial bias curriculum for hospitals being developed by New York Perinatal Quality Collaborative</td>
<td>- State funds the Maternal Infant Community Health Collaborative (MICHIC) to increase access to CHWs</td>
<td>- Extend Medicaid coverage for pregnant women from 60 days after pregnancy to one year postpartum</td>
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<td>- 2018: H+H introduced new medical simulation training, expanded 2020</td>
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<td>- Increase the diversity of health care providers in medical education</td>
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