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

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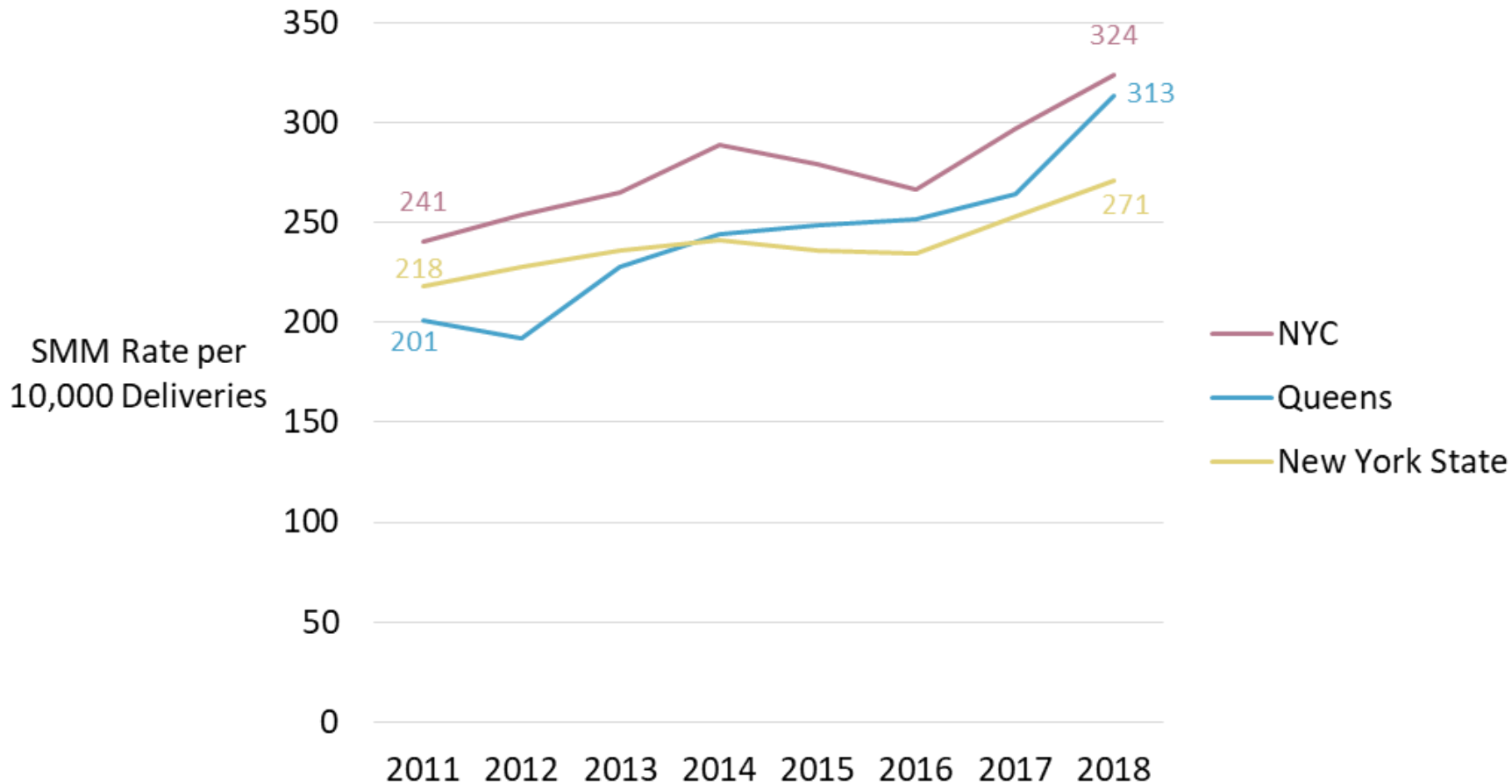
A note on language: We recognize that not all people impacted by maternal health issues identify as women.

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)

SMM Rate per 10,000 Deliveries

350
324
313
300
241
271
250
218
201
200
150
100
50
0

2011 2012 2013 2014 2015 2016 2017 2018

—— NYC
—— Queens
—— New York State

- 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).

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Results: SMM Rates by Race/Ethnicity (NYC) (2011–2018)

SMM Rate per 10,000 Deliveries

Black
Hispanic
Asian
White
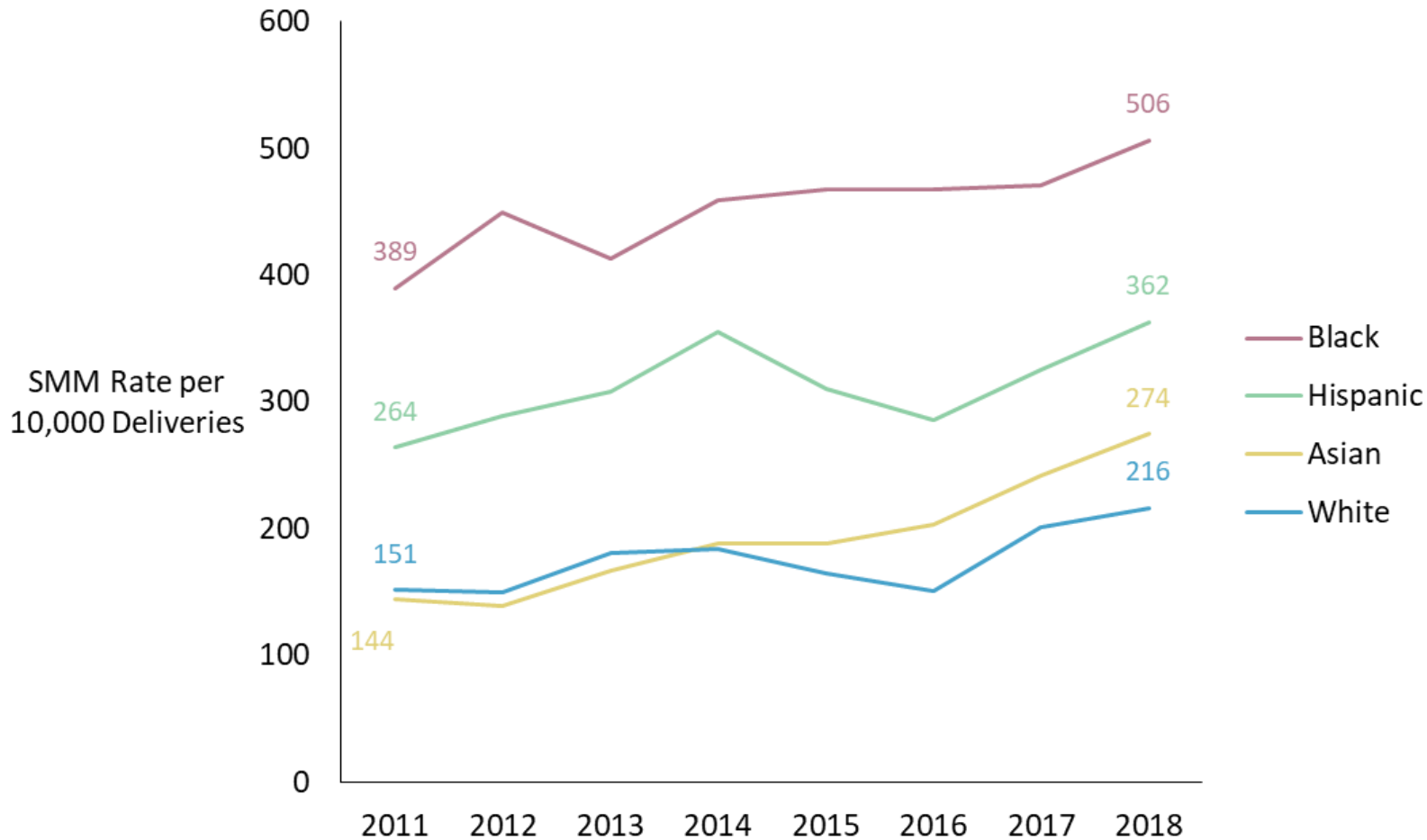
Note: Black, Asian, and White women are non-Hispanic or Ethnicity Unknown.

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

Results: SMM Rates by Race/Ethnicity & Region (2018)
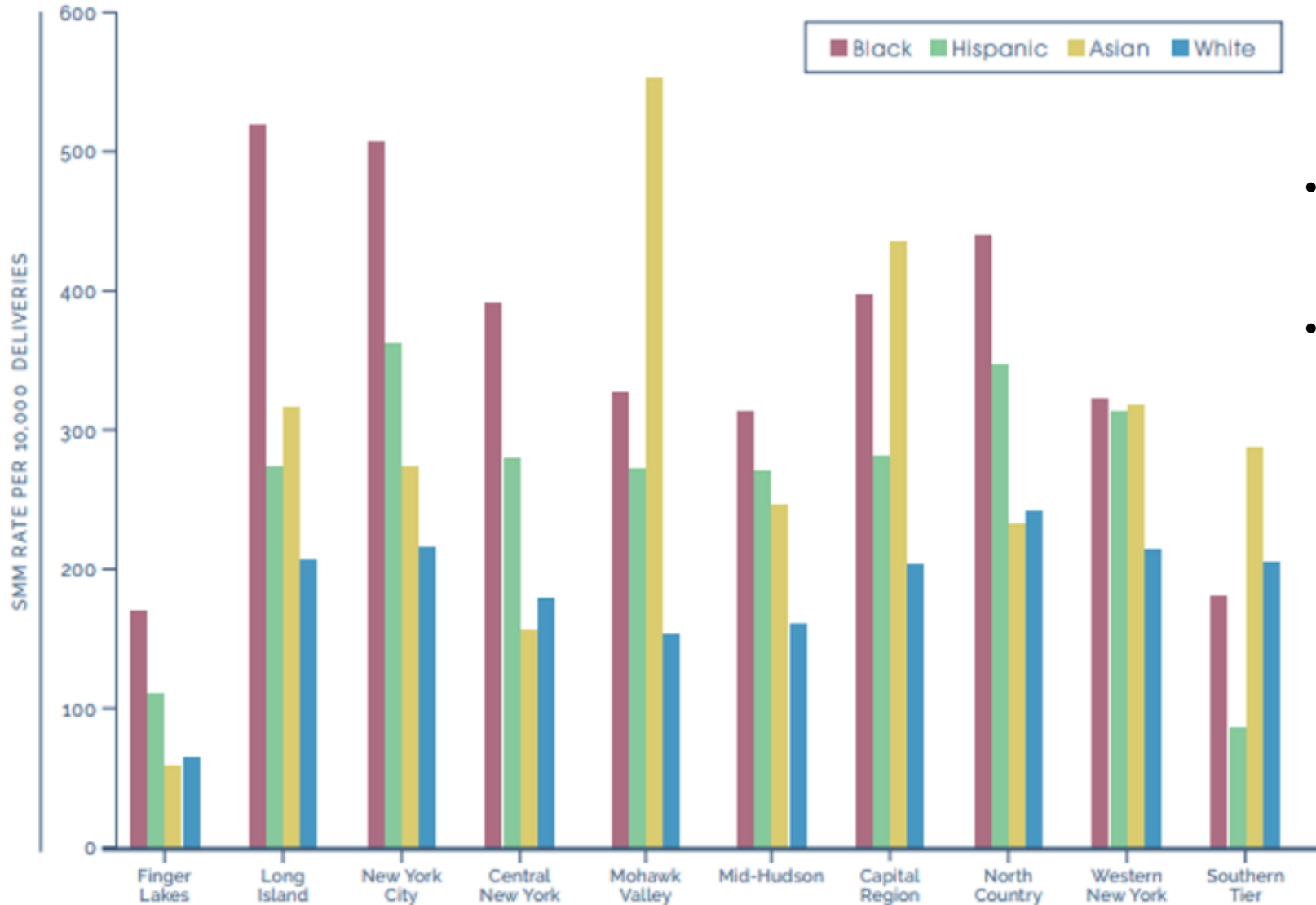
- In 2018, racial and ethnic disparities existed in all regions—not limited to NYC.

- 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[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[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.

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

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Acknowledgments

Full Report

http://bit.ly/NY_SMM