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Quality, Equity, and Maternal Health

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‘I Can’t Breathe’: Peaceful Demonstrators Continue To Rally Over George Floyd’s Death

Not listened to
Nothing Protects Black Women From Dying in Pregnancy and Childbirth

Not education. Not income. Not even being an expert on racial disparities in health care.

by Nina Martin, ProPublica, and Renee Montagne, NPR, Dec. 7, 2017, 8 a.m. EST

PROPUBLICA  TOPICS  SERIES  ABOUT

LOST MOTHERS

How Hospitals Are Failing Black Mothers

A ProPublica analysis shows that women who deliver at hospitals that disproportionately serve black mothers are at a higher risk of harm.

by Annie Waldman, Dec. 27, 2017, 8 a.m. EST

Racism Linked to High Maternal and Infant Mortality for Native Women

“We stopped keeping statistics on the number of Native moms and babies that are lost in our region; it was just too upsetting.”

Avana Burd  |  JUL 10, 2018 1:12PM EDT

COLORLINES  PUBLISHED BY

Rosa Diaz;
Courtesy of
Diana Diaz

Erica Garner  Andrew Burton/ Getty Images
Pregnancy-Related Mortality Ratios by Race-Ethnicity, 2007-2016

- Non-Latinx Black: 40.8
- American Indian: 29.7
- Asian/Pacific Islander: 13.5
- Non-Latinx White: 12.7
- Latinx: 11.5


Definition of Disparities

• “Health equity and health disparities are intertwined. Health equity means social justice in health (i.e. no one is denied the possibility to be healthy for belonging to a group that has historically been economically/ socially disadvantaged). Health disparities are the metric we use to measure progress toward achieving health equity.” (Dr. Paula Braveman)

Pregnancy-Related Mortality Ratios by Educational Attainment, 2006-2017

Severe Maternal Morbidity (SMM)

• For every maternal death, 100 women experience severe maternal morbidity

• Life-threatening diagnosis or life-saving procedure
  – organ failure (e.g. renal, liver), shock, amniotic embolism, eclampsia, septicemia, cardiac events
  – ventilation, transfusion, hysterectomy

• Rates are increasing


33.5% of Indigenous women vs. 19% of White women live in rural areas.
Racial / Ethnic Disparities in Severe Maternal Morbidity

Fig. 2. Incidence of the 10 most frequent severe maternal morbidities per 10,000 delivery hospitalizations by race and ethnicity, United States, 2012–2015 (N=2,523,528). All data are survey-weighted and represented as rate per 10,000 delivery hospitalizations (95% CI). Adjusted for age, income, payer, rural vs urban residence, and hospital region.

Covid-19 and Maternal Health Disparities: SARS-CoV-2 Infection During Pregnancy

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>SARS-CoV-2 Infection (%)</th>
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</thead>
<tbody>
<tr>
<td>Latinx</td>
<td>46%</td>
</tr>
<tr>
<td>Black</td>
<td>24%</td>
</tr>
<tr>
<td>White</td>
<td>51%</td>
</tr>
</tbody>
</table>

CDC MMWR Weekly / Vol. 69 / No. 25; US Data, Jan 22–June 7, 2020; N=8,207, N= ~3.8 million
Patient Factors
- Socio-demographics: age, education, poverty, insurance, marital status, employment, language, literacy, disability
- Knowledge, beliefs, health behaviors
- Psychosocial: stress, weathering, social support

Community/Neighborhood
- Community, social network
- Neighborhood: crime, poverty, built environment, housing

Clinician Factors
- Knowledge, experience, implicit bias, cultural competence, communication

System Factors
- Access to high quality care, transportation, structural racism, policy

Figure 1: Pathways to Racial and Ethnic Disparities in Severe Maternal Morbidity & Mortality

Our Research in New York City Hospitals

- Mixed methods study to investigate hospital quality and disparities in SMM
- Examine hospital risk-adjusted SMM and racial/ethnic distribution of deliveries
- Conduct qualitative interviews to examine safety culture, QI, and other factors
- Conduct focus groups to explore receipt of high quality care

*Funded by NIH #R01MD007651
Severe Maternal Morbidity Rates in New York City

| Group   | Rate
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Black</td>
<td>4.2%</td>
</tr>
<tr>
<td>Latinx</td>
<td>2.7%</td>
</tr>
<tr>
<td>White</td>
<td>1.5%</td>
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</tbody>
</table>

Observed rates: 0.6% to 11.5%; Risk standardized rates: 0.8% to 5.7%
Hospital Rankings

Risk standardized maternal morbidity (%)

- Low Morbidity
- Medium Morbidity
- High Morbidity

Hospitals ranked from lowest to highest morbidity

Observed rates: 0.6% to 11.5%; Risk standardized rates: 0.8% to 5.7%
## Deliveries by Race / Ethnicity and Risk-standardized Hospital Morbidity

### Hospital Group by RSSMM*

<table>
<thead>
<tr>
<th>Race</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black (%)</td>
<td>23</td>
<td>39</td>
<td>37</td>
</tr>
<tr>
<td>White (%)</td>
<td>65</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Latinx (%)</td>
<td>33</td>
<td>38</td>
<td>29</td>
</tr>
</tbody>
</table>

Hospital Factors and Quality

- Disparities
- Bias
- Diversity
- Communication
- Families

Patient Outcomes
(Mortality and Morbidity)
Common Themes

- Wide variation in quality measurement and improvement:
  - Metrics used
  - Staff assigned specifically to quality/safety
  - Whether and how data are distributed beyond leadership
- No one analyzes data to compare performance across race, ethnicity or insurance source
- Individual adverse events more likely to lead to quality improvement than monitoring trends
Focus Groups: Mothers’ Words to Describe Childbirth Experience

rushed

traumatic

confusing

alone

complicated

distressed

very-scattered

incomplete

scary

misinformed

frustrated

worrisome
Focus Groups Findings

• Traumatic Experience
  – “Traumatized,” “Scary,” “Never want to have a child again”
  – Complemented with gratitude

• Poor Communication
  – “They just rushed me to the OR, and that was it. I was just lying there. I'm cold. I'm shaking. I know I'm not feeling good, but nobody is telling me anything.”

• Not Feeling Heard
  – …I essentially diagnosed my own pulmonary embolism, because nobody was listening to me. It's very scary to me how much I really had to advocate [for myself].”
Levers to Reduce Disparities
Key Recommendations

- Collect self-identified race/ethnicity/language data
- Implement disparities dashboard; utilize QI to address identified gaps in care
- Encourage community participation in quality and safety committees
- Utilize enhanced maternal mortality and severe maternal morbidity reviews
- Enhance communication, shared decision making
- Implement bias trainings
- Promote a culture of equity
CDC-MMRIA Bias Working Group

• Response to MMR committees reporting the role of bias in maternal death, but no distinct category for bias on MMRIA

• Aim to design a consistent approach for documenting racism and discrimination as contributing factors to pregnancy-related deaths

• Provide recommendations on how to prevent pregnancy-related deaths when bias is a contributing factor
## Contributing Factors

<table>
<thead>
<tr>
<th>Key Factors</th>
<th>Highlighted Factors</th>
<th>Other Factors</th>
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<tbody>
<tr>
<td>Access/financial</td>
<td>Discrimination</td>
<td>Substance use disorder - alcohol, illicit/prescription drugs</td>
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<tr>
<td>Adherence</td>
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<td>Tobacco use</td>
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<tr>
<td>Assessment</td>
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<td>Unstable housing</td>
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<tr>
<td>Childhood abuse/trauma</td>
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<td>Violence</td>
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<tr>
<td>Chronic disease</td>
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<td>Other</td>
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<tr>
<td>Clinical skill/quality of care</td>
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<tr>
<td>Communication</td>
<td></td>
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<tr>
<td>Continuity of care/care coordination</td>
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<tr>
<td>Cultural/religious</td>
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<td>Delay</td>
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(Descriptions on page 4)
Levers to Reduce Racial and Ethnic Disparities in Severe Maternal Morbidity & Mortality

Enhance Communication

Eliminate Bias

Preconception Care

New models – Patient navigators, Case management

Antenatal Care

Promote contraception, Optimize preconception health

Delivery & Hospital Care

QI, standardization, bundles, team training, simulations, reviews, protocols, disparities dashboard

Postpartum Care

Engage Community

New models – Centering, Medical Homes, enhanced models for high risk women

Outcomes

Severe Maternal Morbidity & Mortality
THANK YOU

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Structural Racism: the systems of power based on historical injustices and contemporary social factors that systematically disadvantage people of color and advantage white people through inequities in housing, education, employment, earnings, benefits, credit, media, health care, criminal justice, etc.

Adapted from Bailey ZD. Lancet. 2017; 389(10077):1453-1463.
Discrimination: treating someone more or less favorably based on the group, class or category they belong to resulting from biases, prejudices, and stereotyping. It can manifest as differences in care, clinical communication and shared decision-making.

Adapted from Smedley BD. National Academies Press (US); 2003.
Interpersonal Racism: discriminatory interactions between individuals resulting in differential assumptions about the abilities, motives, and intentions of others and differential actions toward others based on their race. It can be conscious as well as unconscious, and it includes acts of commission and acts of omission. It manifests as lack of respect, suspicion, devaluation, scapegoating, and dehumanization.

Adapted from Jones CP. Am J Public Health. 2000; 90(8): 1212–1215.