Black Maternal Health: Getting at the Root Cause of Inequity

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UMN McKnight Fellow 2020-22
Rising rates of maternal mortality in the US

Maternal Deaths in the U.S. Are on the Rise
Maternal mortality ratio (number of maternal deaths per 100,000 live births)

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>Developed Regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>1995</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>2000</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>2005</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>2013</td>
<td>28</td>
<td>22</td>
</tr>
</tbody>
</table>

Maternal Mortality Ratio

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>2013</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>380</td>
<td>210</td>
<td>-45%</td>
</tr>
<tr>
<td>Developed Regions</td>
<td>26</td>
<td>16</td>
<td>-38%</td>
</tr>
<tr>
<td>Developing Regions</td>
<td>430</td>
<td>230</td>
<td>-47%</td>
</tr>
<tr>
<td>United States</td>
<td>12</td>
<td>28</td>
<td>+136%</td>
</tr>
</tbody>
</table>

Source: World Health Organization
Racial inequities in maternal health

**America's black-white maternal mortality gap is widening**

*Percentage of pregnancy-related deaths by race*

<table>
<thead>
<tr>
<th>Year</th>
<th>Black Women</th>
<th>White Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>34%</td>
<td>11.8%</td>
</tr>
<tr>
<td>2011</td>
<td>42.8%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

**US Maternal Death Rate**

*Per 100,000 live births*

**FIGURE 1**

**Maternal mortality rates in select countries and the United States**

- **Total maternal deaths per 100,000 live births**
  - All U.S. mothers: 14
  - U.S. non-Hispanic white mothers: 12.7
  - U.S. African American mothers: 43.5
  - Mothers in high-income countries: 10
  - Mothers in upper-middle-income countries: 44

Maternal Mortality in Minnesota

- Based on preliminary data from 2011-2017, the maternal mortality rate for non-Hispanic Black women is 2.3 times higher when compared to white mothers.
- The American Indian maternal mortality rate is approximately 4 times higher than that for white mothers.
- These data suggest that almost half (47%) of maternal deaths occur in greater Minnesota.
Infant Mortality

Figure 2
Infant mortality rates in select countries and the United States

- Total infant deaths per 1,000 live births
  - All U.S. mothers: 6
  - U.S. non-Hispanic white mothers: 4.8
  - U.S. African American mothers: 11.7
  - Mothers in high-income countries: 5
  - Mothers in upper-middle-income countries: 12

Infant Mortality in Minnesota

- MN infant mortality rate is one of the lowest in the US

*But…*

- Our overall IMR disguises substantial variation by race

- The burden of infant mortality is not shared equally

**Figure 3** Infant Mortality Rates by Race/Ethnicity of Mother: Minnesota
1995-1999 and 2006-2010

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>1995-1999</th>
<th>2006-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>13.2</td>
<td>9.8</td>
</tr>
<tr>
<td>American Indian</td>
<td>13.5</td>
<td>9.1</td>
</tr>
<tr>
<td>Asian</td>
<td>7.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Hispanic*</td>
<td>7.0</td>
<td>4.8</td>
</tr>
<tr>
<td>White</td>
<td>5.5</td>
<td>4.3</td>
</tr>
<tr>
<td>Total</td>
<td>6.2</td>
<td>5.1</td>
</tr>
</tbody>
</table>

*Can be of any race*

Source: Minnesota Department of Health, Center for Health Statistics
Root Cause?

Racism not Race is a Risk Factor in Reproductive Health Inequities

-Dr. Joia Crear-Perry  Founder, National Birth Equity Collaborative
This is **NOT** about one man. This is about **STRUCTURAL** Racism in a country built on **BLACK SLAVERY**.

Implicit Bias

Structural Racism

- Voting rights
- FHA Loans
- Residential segregation
- Access to education, green space, resources, safety, healthcare, etc
- Jobs, hiring, & advancement

www.nationalequityproject.org
Icons adapted from the Awe Project
Structural Racism and Health Inequity

“Social Determinants of Health”

- Education Access & Quality
- Access to Quality Healthcare
- Housing Affordability & Options
- Work & Economic Opportunities
- Neighborhood Context & Factors
- Social Interactions & Relationships

Inequitable Health Outcomes by ‘race’ (Health Disparities)
The Evidence:
*How does the confluence of implicit bias and structural racism show up in health & health care delivery for Black moms and babies?*
Structural Racism and Maternal Mortality

• Are there associations between county-level indicators of structural racism and Maternal Mortality among non-Hispanic Black and white populations in the US?
  - County level structural racism indicators included the white to black ratio in:
    • Educational attainment;
    • Employment;
    • Median household income;
    • Prison rates;
    • Jail incarceration rates

• Overall structural racism:
  - a dichotomized variable of high & low structural racism
  - the Index of Concentration at the Extremes (ICE) where higher scores indicate a larger concentration of high-income residents.
Yes!

• Structural racism in:
  - **median household income** and **educational attainment** were associated with a 12% and 16% increase in **overall** Maternal mortality
  - **median household income** and **county-level prison incarceration** were associated with a 27% and 28% increase in **Black** maternal mortality

• Counties with **higher ICE scores** (larger concentration of high-income residents) had 21% **lower** overall Maternal mortality

• **Overall structural racism** in the county was associated with a 37% increase in Black Maternal mortality
Police contact as a determinant of structural racism

Learn more here: NPR Story
Numerous studies document Black women’s experiences of racism in the healthcare system


Mortality rate for Black babies is cut dramatically when Black doctors care for them after birth, researchers say

Rachel Hardeman has dedicated her career to fighting racism and the harm it has inflicted on the health of Black Americans. As a reproductive health equity researcher, she has been especially disturbed by the disproportionately high mortality rates for Black babies.

In an effort to find some of the reasons behind the high death rates, Hardeman, an associate professor at the University of Minnesota School of Public Health, and three other researchers combed through the records of 1.8 million Florida hospital births between 1992 and 2015 looking for clues.

They found a tantalizing statistic in the Florida births. Although Black newborns are three times as likely to die as White newborns, when Black babies were cared for by Black doctors after birth — primarily pediatricians, neonatologists and family practitioners — their mortality rate was cut in half. They found an association, not a cause and effect, and the researchers said more studies are needed to understand what effect, if any, a doctor’s race might have on infant mortality.
Potential Policy Solutions

- Invest in the Social Determinants of Health
- Fund community based, Black led organizations
- Grow and diversify the perinatal & healthcare workforce
- Improve and mandate data collection and quality measures
  - Support MMRC and FIMR
- Support innovative care models & payment models
- Medicaid coverage up to 1 year postpartum
- Mandate training
Implicit bias & Anti-racism training

ELIMINATING INEQUITIES IN PERINATAL HEALTH CARE PROJECT

PROJECT DESCRIPTION

Diversity Science and project director, Rachel Hardeman, PhD, MPH, will create interactive e-learning modules for perinatal providers focused on implicit bias and reproductive justice.

These resources are developed in accordance with the training requirements outlined in the California Dignity in Pregnancy and Childbirth Act (Senate Bill 464) which went into effect in January 2020.

All of the e-learning modules and resources developed for this project will be available free of charge. This project was funded by the California Health Care Foundation in response to strong evidence of racial inequities in perinatal care.

https://www.diversityscience.org/training/equal-perinatal-care/
Thank You!

Acknowledgements: Alyssa Fritz MPH

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