



Maternal Mortality and Racial Disparities in New York

Office of Health Equity, *The Eunice Kennedy Shriver*
National Institute of Child Health and Human
Development (NICHD)

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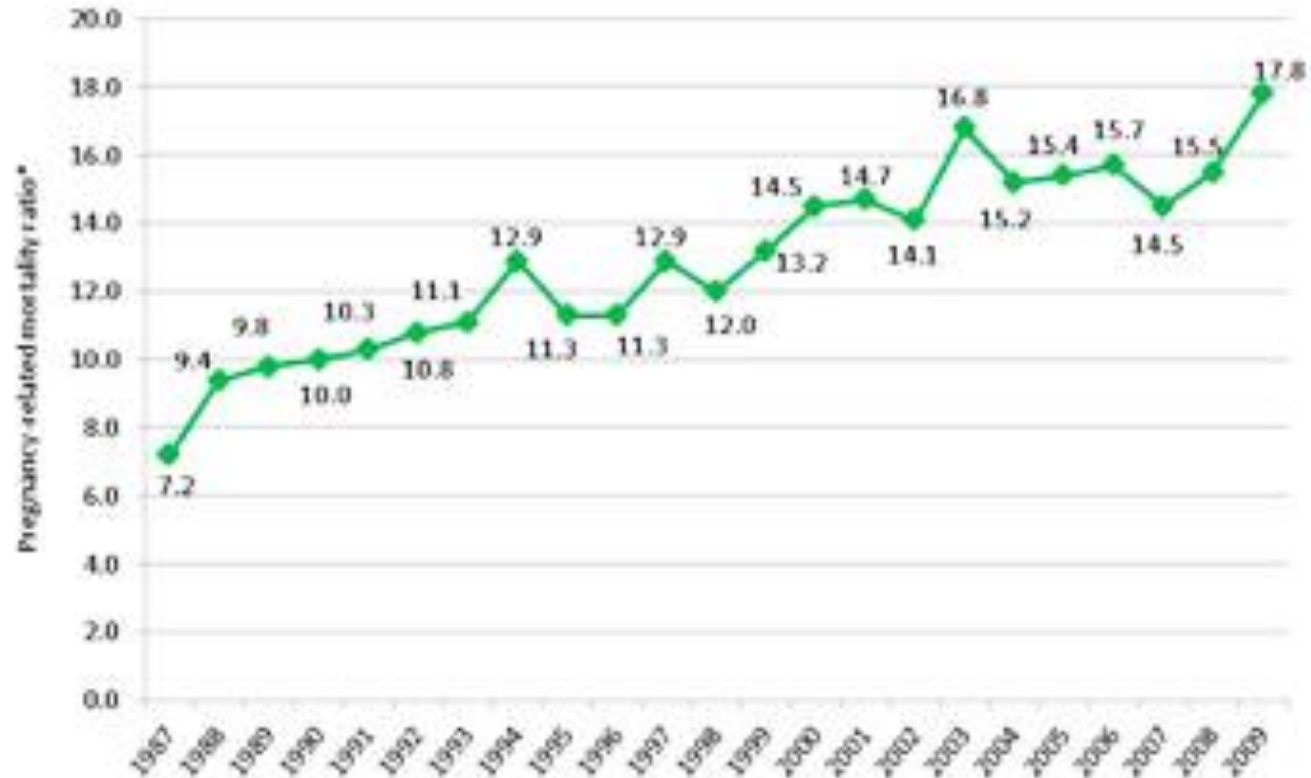
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Maternal Mortality in the US

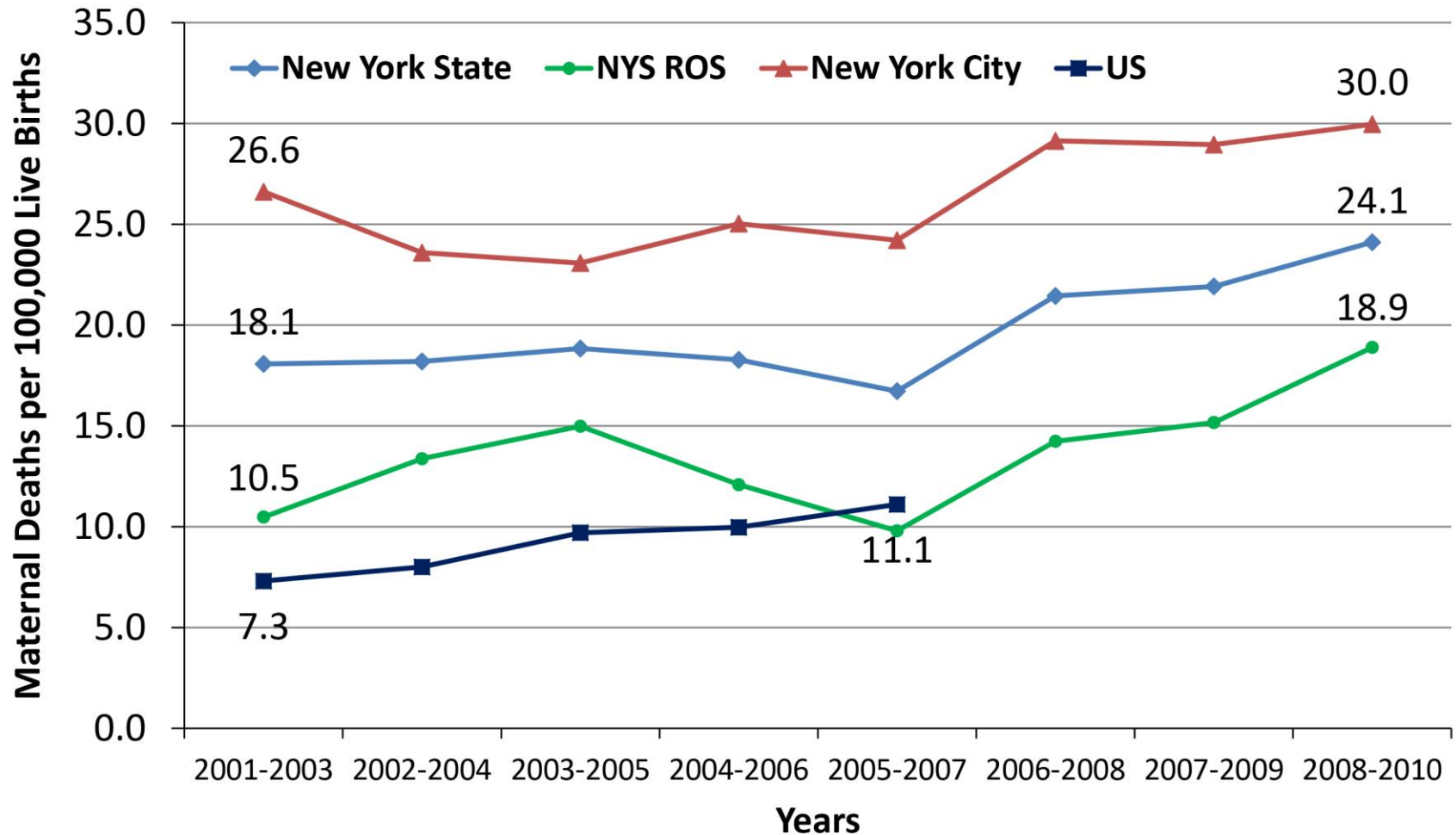
- The United States ranks behind 40+ nations in maternal deaths, with an MMR of 15.8 for 2006-2009
- The US spends more on care per birth than any other nation

Pregnancy-Related Mortality in the United States, 1987-2009

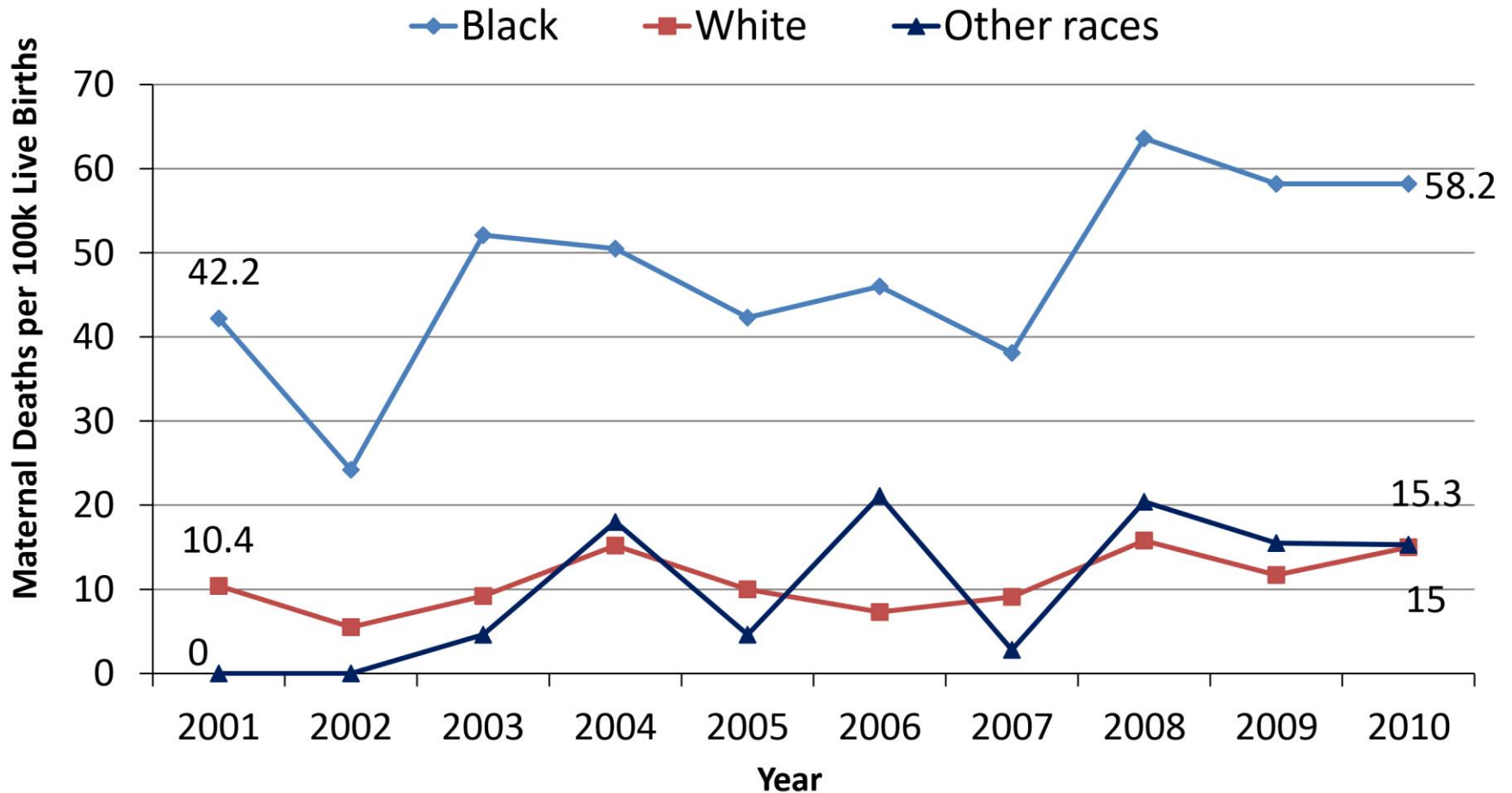


*Note: Number of pregnancy-related deaths per 100,000 live births per year.

3 Yr Rolling Average Maternal Mortality Rate: NYS, 2001–2010



Maternal Mortality Rate by Race, NYS Vital Records, 2001–2010



Underlying cause of death due to complications of pregnancy, childbirth and the puerperium, within 42 days of pregnancy.

**Maternal Mortality in New York:
A Call to Action:**

Findings and Priority Action Steps

February 2011

Reporting and Case Review

Recommendations

- Standardized definition of maternal death
- Mandatory, state-wide, hospital based reporting
- Enhanced data collection:
 - Post-hospital discharge deaths
 - Near misses
 - Geo-coding
- On-site case review

Hospital Care

Recommendations

- State-enforced, mandatory, standardized protocols for screening and intervention to address hypertension, hemorrhage, and DVT
- Expand Regional Perinatal Centers' focus from high-risk babies to high risk mothers
- Review and possibly regulate the high rate of pre-term cesarean sections

Primary and Secondary Prevention

Recommendations

- Prevent unplanned pregnancies
- Provider education on obesity, chronic diseases and other conditions that affect maternal health
- Develop protocols to identify and refer high-risk patients
- Develop protocols to connect pre-hospital and in-hospital care
- Implement web-based Pregnancy Health Records

System Improvements

- Put the M back in MCH
- National consensus on definitions and use
- JACHO standards for high risk Ob facilities
- Enhance pre-conception health
- Public campaign to women and teens and to providers
- Assure ACA supports implemented
- Presumptive eligibility for Medicaid
- Integrated payment models/bundles
- Lower cost OTC emergency contraception

NYS Prevention Agenda 2013-2017 - Priorities

1. Prevent chronic diseases
2. Promote a healthy and safe environment
- 3. Promote healthy women, infants and children**
4. Promote mental health and prevent substance abuse
5. Prevent HIV, sexually transmitted diseases, vaccine-preventable diseases and healthcare associated infections

Racial Disparities in the MMR

- During 2006–2009, the pregnancy-related mortality ratios were (CDC PMMS):
 - 11.7 deaths per 100,000 live births for white women.
 - 35.6 deaths per 100,000 live births for black women.
 - 17.6 deaths per 100,000 live births for women of other races

MMR disparity between blacks and whites in the US:

Five conditions accounting for 26% of all pregnancy-related deaths were examined for all US births in the years 1988-1999: *preeclampsia, eclampsia, abruptio placenta, placenta previa, and postpartum hemorrhage*

Finding: the black-white ratio of pregnancy-related mortality ranged from 2.5 to 3.9.

(Tucker, 2007)

Possible reasons for higher case-fatality rates among black women

- higher rates of pre-existing conditions, such as hypertension, diabetes, or obesity
- lower quality of health care
- higher rates of unintended pregnancies in higher-risk women, e.g., women over age 40

Modifiable risk factors

- medical care
- cesarean deliveries (emergent vs elective)
- obesity
- chronic conditions
- unintended pregnancies

Maternal deaths and contraception

Increased use of contraception:

- reduces the number of births and the number of times a woman is exposed to the risk of maternal mortality
- decreases the proportion of births that pose a higher risk to women, such as high-parity and older maternal age births (Stover, 2010; Tsui, 2010).

Poverty and race as factors in rates of unintended pregnancies

- The rate of unintended pregnancies is four times greater for women living under the federal poverty level than women with household incomes over 200% of the poverty level
- Black women are nearly three times as likely to have an unintended pregnancy as white women (cited in Finer and Kost, 2011).

Pre-existing conditions and age account for the racial disparity?

The Montefiore study of mortality and “near-miss” cases from 1995-2001 Looked at age, race/ethnicity, and pre-existing conditions.

Risk factors and their respective Odds Ratios:

- Age 35-39 – 2.3
- Age >39 – 5.1
- African-American race – 7.4
- Hispanic ethnicity – 4.2
- Chronic medical conditions – 2.7
- Obesity – 3.0
- Prior cesarean – 5.2
- Gravidity – 1.2 per pregnancy

Lower Risk & Increased Disparity

- In a study of North Carolina African-American and white pregnancy-related deaths from 1992-1998, a number of established socioeconomic and medical risk factors were examined (Harper, 2004)
- A national study found greater odds ratios of maternal death for blacks compared to whites within the lower risk categories of marital status, years of education, birthweight, parity, and adequacy of prenatal care (Saftlas, 2000).

Lower Risk & Increased Disparity

- Racial disparities are not only about a higher proportion of black people having greater medical and socioeconomic risks (as commonly measured), but the fact that increasing income and education do not confer the same protective health benefits to blacks as they do to whites.

Lower Risk & Increased Disparity

- Racial discrimination has a stronger effect on health outcomes among women at *lower* medical risk (age) and *lower* socioeconomic risk (education)
- The mechanisms by which discrimination operates most strongly are in the domains of seeking employment and working
- BRFSS data shows major differences in perceived stress between AAs and Whites

Proposed Research Agenda from a Policymaker Perspective

- **Prioritize funding for racial disparities focused research on maternal mortality**
- **To better understand racial disparities, conduct qualitative case reviews and interviews of women who survived “near-miss” maternal morbidities.**
- **Develop better quantitative measures of exposures that explain racial disparities.**

Proposed Research Agenda from a Policymaker Perspective, cont'd

- **Examine the evidence that suggests that increasing income and education do not confer the same protective health benefits to blacks as they do to whites.**
- **Examine how access and quality of care issues from family planning services and contraception through pregnancy to delivery can reduce racial disparities in maternal mortality**
- **Improve the completeness and timeliness of surveillance data to enable monitoring and evaluation of the effects of interventions on racial disparities**