

March 2017

# Disparities in Infant Mortality: Are Sociocultural Risk Factors Shaped by Institutionalized Racism?

Maddie Grimm

University of Northern Iowa, grimmmaa@uni.edu

Copyright ©2017 Maddie Grimm

Follow this and additional works at: <http://scholarworks.uni.edu/rcapitol>

 Part of the [Community Health Commons](#), and the [Maternal and Child Health Commons](#)

*Let us know how access to this document benefits you*

---

## Recommended Citation

Grimm, Maddie, "Disparities in Infant Mortality: Are Sociocultural Risk Factors Shaped by Institutionalized Racism?" (2017). *Research in the Capitol*. 6.

<http://scholarworks.uni.edu/rcapitol/2017/all/6>

This Open Access Poster Presentation is brought to you for free and open access by the University Honors Program at UNI ScholarWorks. It has been accepted for inclusion in Research in the Capitol by an authorized administrator of UNI ScholarWorks. For more information, please contact [scholarworks@uni.edu](mailto:scholarworks@uni.edu).



# Disparities in Infant Mortality: Are Sociocultural Risk Factors Shaped By Institutionalized Racism?

Maddie Grimm, BA candidate, Health Promotion and Education

## Stress and Birth Outcomes

### Introduction

The infant mortality rate (IMR) differs across races in the United States, resulting in an undeniable health disparity. According to the CDC, the infant mortality rate in 2013 among non-Hispanic whites was 5.06 infant deaths per 1,000 live births; the infant mortality rate for Black Americans was 11.11 - more than double.

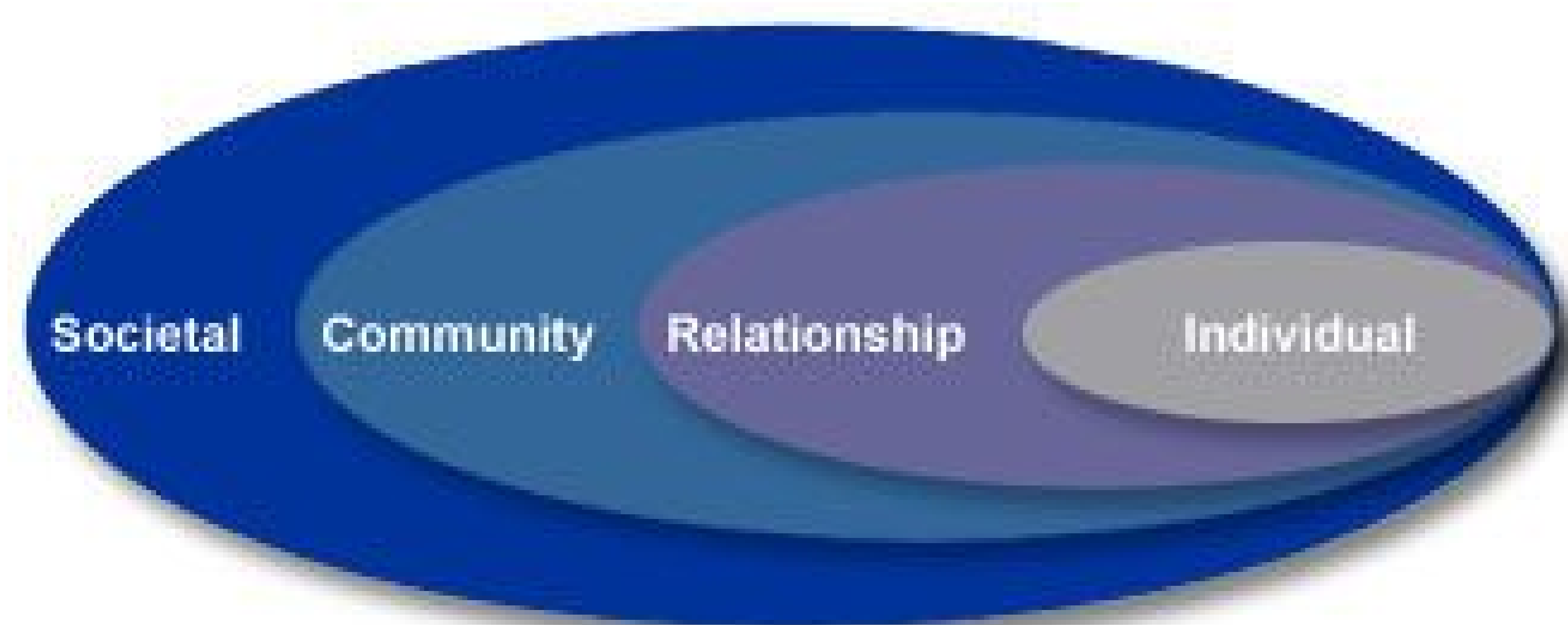
Due to the large disparity, questions can be raised about the ways in which the US social structure impact citizens to varying degrees.

#### RESEARCH QUESTIONS

- What sociocultural risk factors contribute to higher rates of infant mortality among Black American women?
- How do factors related to institutionalized racism contribute to stress and infant mortality?
- How can health education and health promotion interventions be used to reduce this disparity?

### Methods

This thesis research was conducted using secondary data through an extensive literature review. The searches were completed using databases through the University of Northern Iowa Rod Library and Google Scholar. The table below lists the terms used. The Social Ecological Model (SEM), displayed below on the right, was used to categorize the potentially influencing sociocultural factors. For this purpose, the model from the CDC's Framework for Prevention will be used.



Social Ecological Model (CDC)

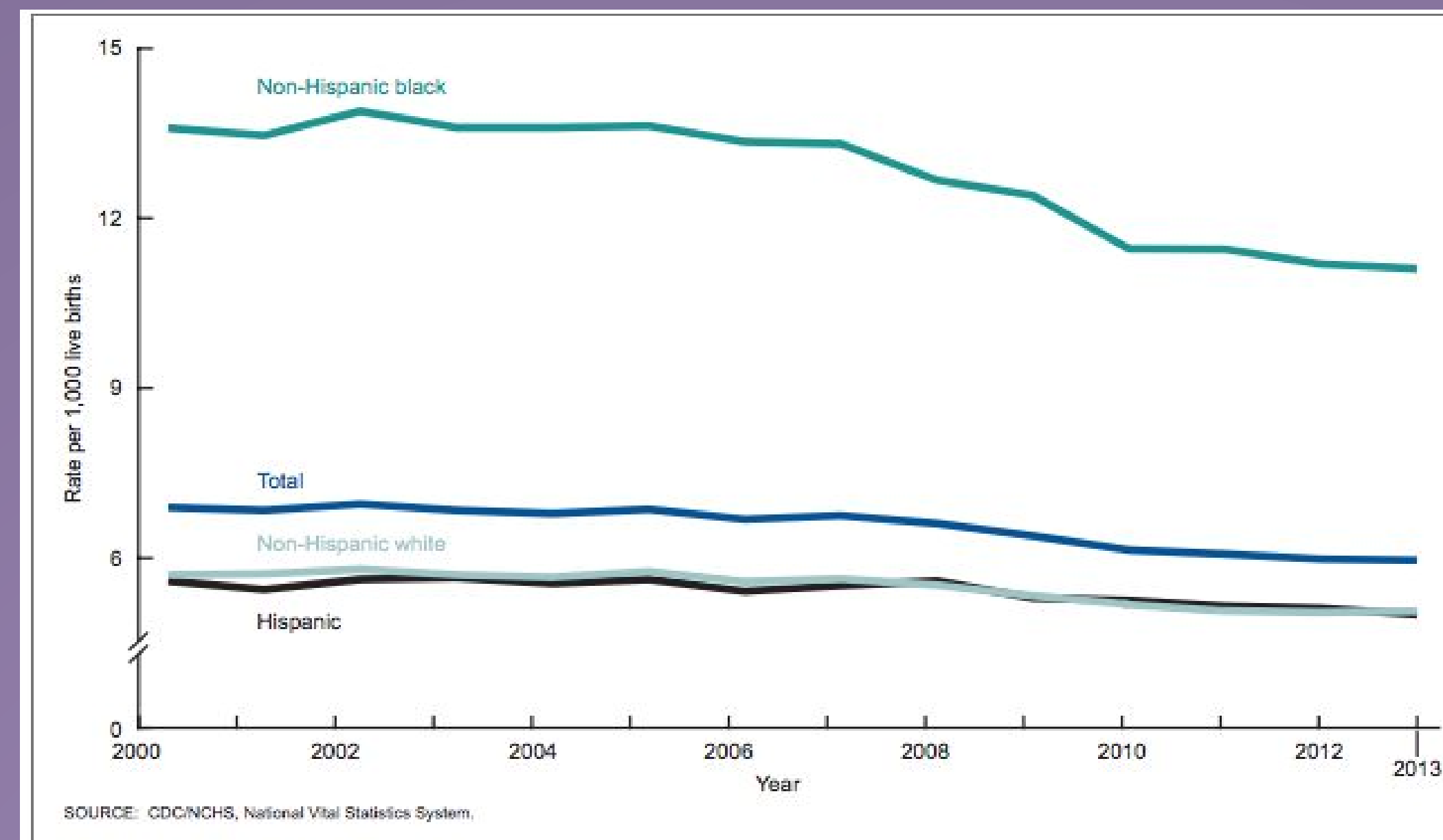


Figure 1. Infant mortality rates, by race and Hispanic origin of mother: United States, 2000–2013



While acute stress is an adaptive process, chronic stress is an allostatic load or “wear and tear” on the body’s systems and impacts health outcomes:

- body releases stress hormones, such as cortisol
- stress hormones normally maintain blood pressure and other bodily functions
- prolonged secretion of hormones due to chronic stress causes the body’s systems to maladapt
- other systems overcompensate for the excess of stress hormones
- stress hormones now cause damage to the body, including the body’s metabolism, cardiovascular and immune systems

These physiological changes increase the likelihood of adverse health outcomes.

### Sources of Institutionalized Racism

Individual: How an individual copes with stress and how individuals are impacted

- knowledge of facing racism during lifetime
- concern for children

Relationship: How a person’s social network provides support for or causes stress

- ostracization/abuse by White neighbors or friends
- witnessing a family member experience racism
- being “prepared” by parents for potential racism

Community: How a person’s workplace, neighborhoods and schools impact stress

- residential redlining
  - deny loans based on race
  - controls the distribution of wealth
  - have poorer access to resources
- teachers being “surprised” by student’s success
- discrimination in the workplace
  - birth outcomes normally improve as income and education increase; however this is not true for Black American women

Societal: How aspects of society influence stress, specifically healthcare settings

- mistrust between Black American patients and healthcare providers
  - 20% of Black American women felt they received poor treatment (8% of White American women)
- substandard medical care
  - less likely to receive referral for further treatment
- report being coerced into passive techniques during birthing process

### Discussion

The review of related literature provides support that chronic stress influences adverse birth outcomes. For Black American women in the US, the sources of chronic stress found at each level of the SEM are influenced by racism; these sources of stress are not experienced by their White counterparts. Several intervention programs have produced improved birth outcomes, but because of the complexity of the disparity and the wide range of sources of race-related chronic stressors, this disparity cannot be solved by one intervention program. It is important to acknowledge that the issue is not in the individual health practices, but in the society that homes these sociocultural factors. Through a variety of programs and self-reflection, health educators can recognize their own prejudices and evaluate how to overcome them, producing more impactful programs to reduce the infant mortality disparity.