



We carry our histories in our bodies... How can we not? – Nancy Kreiger, *Unnatural Causes*

## Racial Discrimination as an Independent Risk Factor During Pregnancy

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# 2015: Executive Summary



- In 2015, Elephant Circle, in conjunction with the International Center for Traditional Childbearing (ICTC), International Cesarean Awareness Network (ICAN), and Midwives Alliance of North America (MANA) authored an Executive Summary, upon which this power point is based.
  - “Racial Disparities in Birth Outcomes and Racial Discrimination as an Independent Risk Factor Affecting Maternal, Infant, and Child Health”
- The goal of this report was to create a strategic partnership between organizations centering the needs of persons of color and historically white organizations, so as to leverage power with the goal of dismantling racism.



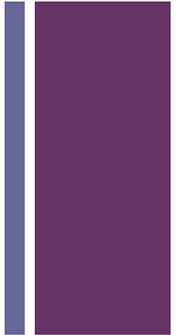
# Births in 2014



- Just under 4 million (3,988,076 ) births in 2014, the last year for which data is complete. <sup>1</sup>
- The Cesarean delivery rate declined for the second straight year to 32.2% of all U.S. births in 2014. <sup>1</sup>
- The rate of preterm birth, defined as birth before 37 weeks gestation, declined again, from 11.39% in 2013, to 9.57% in 2014. <sup>1</sup>
- For 2014, the rate of low birthweight births remained essentially unchanged at 8.00% of births. <sup>1</sup>



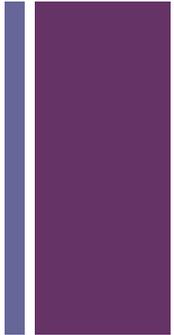
# Racial Disparities in Birth



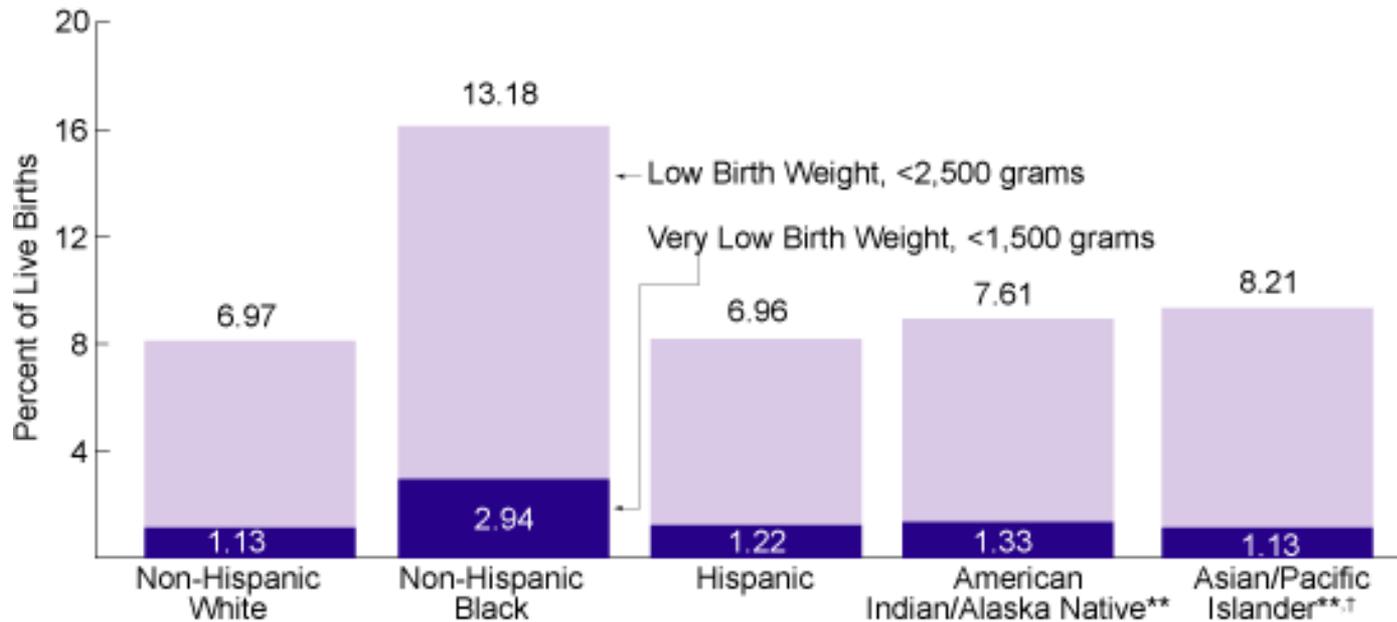
- African-American women, defined as non-Hispanic Black women by the CDC, gave birth to 640,562 infants in 2014.<sup>1</sup>
- Increased cesarean rates for Black women<sup>1</sup>
  - 32.2% (national average) vs. 35.4% (Black women) vs. 31.5% (white women)<sup>1</sup>
- The rate of preterm birth for African-American infants was nearly double that for white infants (13.23% vs. 8.91%, respectively.)<sup>1</sup>
- Black women also gave birth to low birthweight (LBW) and very low birthweight (VLBW) infants at greater rates than white women (LBW = 12.8% vs. 7.0%, VLBW = 2.8% vs. 1.1%, respectively.)<sup>1</sup>



# Racial Disparities in Birth



Low and Very Low Birth Weight, by Maternal Race/Ethnicity, 2012\*



\*Data for 2012 are preliminary. \*\*Includes Hispanics. †Separate data for Asians and Native Hawaiians and Other Pacific Islanders not available.

Source: Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2012. National vital statistics reports; vol 62 no 3. Hyattsville, MD: National Center for Health Statistics. 2013.



# Racial Disparities in Birth



- Non-Hispanic Black women are nearly four times more likely to die in childbirth than non-Hispanic white women:
  - According to data collected by the CDC from 2011-2013:<sup>2</sup>
    - White women: 12.1 deaths per 100,000 live births
    - Black women: 40.4 deaths per 100,000 live births
- These disparities persist across socioeconomic status and after controlling for confounding factors.
  - Black women with a college education more likely to birth infants with low birthweight than white women without high school education.<sup>3</sup>
  - Thus, researchers now look at racial discrimination as independent risk factor affecting maternal, infant, and child health.



# The Research: Racism, Preterm Birth, & Very Low Birth Weight



- Prenatal stress, including racism, is associated with increased risk of poor birth outcomes, including PTB and LBW.
  - Frequent discrimination and interpersonal racism associated with increased rates of preterm birth and/or VLBW.<sup>4</sup>
  - Black women who reported high levels of racial discrimination were 3.1 times the risk of PTB and almost 5 times more likely to birth LBW infants.<sup>4</sup>
  - African-American women who birthed VLBW infants were more likely to report incidences of interpersonal racism than those who delivered higher weight infants at term.<sup>5</sup>



# The Research: Hormones & Stress



- Women at highest risk for preterm birth report higher levels of stress hormones, including CRH, adrenocorticotropin-releasing hormone (ACTH), and cortisol.<sup>5</sup>
- Relationships between elevated stress hormone levels and chronic exposures (i.e., throughout the life-course) to stress, including racism:
  - Racism causes higher levels of stress hormones.<sup>7</sup>
  - Increased hormone levels cause the body to remain “chronically activated” because it is unable to return to its normal state following a stressful event.<sup>8</sup>
  - This chronically activated system and stress response can thus initiate pre-term labor.<sup>9</sup>



# The Research: Fetal Programming & the HPA-axis



- Stimuli during critical periods of embryonic and fetal development may alter such development and influence lifelong health
- When humans encounter a stressor, the body responds with a quick increase then decrease of glucocorticoids, mainly the stress hormone cortisol.
  - This process is mediated by the hypothalamic-pituitary-adrenocortical axis (HPA-axis)
- An excess of active maternal cortisol may pass the placental barrier, affecting the development and function of the fetal HPA-axis.<sup>10</sup>
  - Associated with risk of depression in adult life<sup>11</sup>



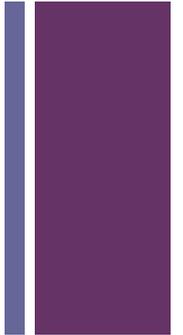
# The Research: CRH & Cortisol



- The maternal HPA-axis may stimulate the production of corticotrophin releasing hormone (CRH) through the placenta.<sup>12</sup>
  - Found to increase the risk of preterm birth threefold.<sup>12</sup>
- Cortisol in the maternal bloodstream may reduce flow of blood through the placenta and to the uterus, potentially slowing fetal growth.<sup>9</sup>
- Women who report frequent discrimination report higher levels of cortisol and are more likely to give birth to infants with higher cortisol reactivity.<sup>13</sup>
- High levels of fetal cortisol can affect the fetus's ability to grow *in utero* and may predispose the fetus to diseases later in life.<sup>14</sup>
- Elevated levels of cortisol also increase the likelihood of elevated levels of CRH, which increases the risk of preterm birth.<sup>10</sup>



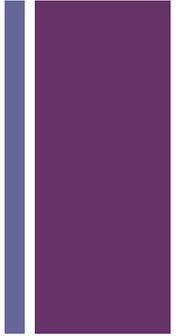
# The Research: Conclusions



- Chronic maternal stress affects fetal programming, with some research finding a link between racism-related maternal stress, stress hormones, and infant and child health outcomes.<sup>6,10</sup>
- Researchers conclude that lifelong experiences of interpersonal racism serve as an independent risk factor for preterm birth.<sup>6</sup>
- Thus, racism can influence maternal, infant, and child health trajectories prior to conception.
  - Data shows correlations between exposure to racism during childhood and increased likelihood of birthing a low birthweight infant.<sup>15</sup>



# Recommendations: A Life-Course Perspective



- Implement a life-course perspective:
  - Birth outcomes are influenced by events and experiences that occur prior to pregnancy.
  - More than personal choices and biology!
  - Health is affected by the environment, social determinants of health, and health equity.



# Recommendations: Dismantle Racism



- Racism is interpersonal, institutional, internalized, and structural.
- Racism inhibits access to health care and utilization of social support services.
  - Institutional mistrust and inequities in healthcare access
- Address factors that discourage healthcare use and access
  - Expand easy access to Medicaid-approved providers
  - Improve access to prenatal providers, particularly those who deliver compassionate, competent care to lower-income communities and communities of color
  - Bolster healthcare infrastructure to reduce wait times
  - Provide social services and linkages to care for lower-income and single-parent families



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