Health Equity to Address Black Infant Mortality
Joia Crear-Perry MD, Founder/President
National Birth Equity Collaborative
Mission
To reduce Black maternal and infant mortality through research, family centered collaboration and advocacy.

Goal
Reducing black infant mortality rates by 25% in the next 5 years in cities with the highest numbers of Black infant deaths and to reduce Black IMR to at or below the national average in these sites in the next 10 years.

Our vision is that every Black infant will celebrate a healthy first birthday.
NBEC Programs

Safe Landing
Birth Equity Solutions
Black Mamas Matter
Campaign for Black Babies
Safe Landing is NBEC’s home-based intervention model targeting at-risk infants leaving the Neonatal Intensive Care Unit (NICU). Facilitators provide culturally appropriate support to at-risk families through the infants’ first birthdays by conducting regular home visits, connecting families to social services.

Providing training in culturally appropriate home-visitation practices to home visitation staff working through insurance companies and managed Medicaid providers.
NBEC works with organizations, communities and stakeholders to develop and implement strategies to achieve birth equity goals. We provide training and technical assistance for organizations that value community voices and strive to improve the lives of Black families.

- Maternal Mortality (PAMR)
- Infant Mortality (FIMR)
- Reproductive Justice
- Family Health/Family Planning
- Focus Groups and Interviews

- Messaging and Social Marketing
- Community Engagement
- Organizing/Advocacy
- Health Policy
- Anti-Racism and Equity Workshops
Black Mamas Matter is a Black women-led cross-sectoral alliance. We center Black mamas to advocate, drive research, build power, and shift culture for Black maternal health, rights, and justice.
The Naked Truth: Death by Delivery
Mixed methods research, parent-centered collaboration, collective impact and advocacy to effectively reduce Black infant mortality in the cities with the highest burden of Black infant death.

Campaign Activities

• *Center the voices and experiences of Black women and families*
• Conduct research informing a national report to be released to local stakeholders, and policy-makers.
• Encourage collective impact by convening local and national stakeholders committed to disaggregating data, customizing strategies, and advocating for systems change.
• Promote evidence-based culturally appropriate interventions effectively reducing Black infant mortality.
Each mile walked means saving 3,000+ babies.
Leading Causes of Infant Death

1. Sudden Unexpected Infant Death Syndrome
2. Congenital Malformations
3. Preterm Related Conditions
### Infant Mortality Rates for Selected Causes of Death Among Non-Hispanic Black and Non-Hispanic White Mothers, 2010

<table>
<thead>
<tr>
<th>Cause</th>
<th>Non-Hispanic Black</th>
<th>Non-Hispanic White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterm-related causes</td>
<td>487</td>
<td>159</td>
</tr>
<tr>
<td>Congenital Malformations</td>
<td>156</td>
<td>118</td>
</tr>
<tr>
<td>SIDS</td>
<td>98</td>
<td>50</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>53</td>
<td>28</td>
</tr>
</tbody>
</table>

**Disparities in Infant Mortality in the U.S.**
Discuss how to use data to impact change in Community Action Networks

Examine and identify Social Determinants of Health Inequities associated with infant mortality

Better understand examples of policy and service improvements for equity in birth outcomes

Define Birth Equity through a human rights, health equity and reproductive justice lens

Learning Objectives
birth equity (noun):

1. The assurance of the conditions of optimal births for all people with a willingness to address racial and social inequalities in a sustained effort.

Joia Crear-Perry, MD
National Birth Equity Collaborative
NBEC Focus

- Human Rights Framework applied
- Dismantling systems of power and racism
- Reproductive Justice
- Education on SDHI

“Working in this area of overlap is part of the reason why programs like Healthy Start, Case Management, NFP, and Centering experience much of their success.”

— Arthur James, M.D.
Article 2.
Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

Article 3.
Everyone has the right to life, liberty and security of person.

Article 25.
(1) Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services.
(2) Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same protection.
LEVELS OF RACISM

- Institutional
- Personally Mediated
- Internalized
• Institutionalized racism - the structures, policies, practices and norms resulting in differential access to the goods, services and opportunities of societies by race.

• Personally mediated - the differential assumptions about the abilities, motives and intentions of others by race.

• Internalized racism - the acceptance and entitlement of negative messages by the stigmatized and non stigmatized groups.

• Camara Jones, MD, PhD, Past President APHA
Root Causes

- Institutional Racism
- Class Oppression
- Gender Discrimination and Exploitation

Power and Wealth Imbalance

- Labor Markets
- Housing Policy
- Education Systems
- Globalization & Deregulation
- Social Safety Net
- Social Networks
- Tax Policy

Social Determinants of Health

- Safe Affordable Housing
- Living Wage
- Quality Education
- Transportation
- Availability of Food
- Job Security
- Social Connection & Safety

Psychosocial Stress / Unhealthy Behaviors

Disparity in the Distribution of Disease, Illness, and Wellbeing

Adapted from R. Hofrichter, *Tackling Health Inequities Through Public Health Practice.*
Reproductive Justice

What is RJ?
The human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities

To achieve, we must...
• Analyze power systems
• Address intersecting oppressions
• Center the most marginalized
• Join together across issues and identities
Maternal Interviews

Question Topics

– Trauma
– Medical History
– Race/Racism
– Transportation
– Housing/Community
– Clinical Care
– Economic Insecurity
– Criminalization and Reproductive Justice
– Support and Connectedness
– Grieving and Counseling

• We used a traditional qualitative analysis methods; transcription, codification, analysis, maintaining confidentiality for the participants
Birth Equity Index

Data tool to identify significant social determinants

• A comprehensive set (50+) of social determinant indicators were selected to broadly define health and opportunities for better health within the social and physical environment of 20 US metro areas with some of the highest black infant mortality rates in the country. We identified those that were at least marginally associated with black infant mortality rates including:

  – prevalence of smoking and obesity among adult residents
  – number of poor physical and mental health days experienced by residents
  – percentage of residents with limited access to healthy foods
  – rates of homicide and jail admissions
  – air pollution
  – racial residential segregation (isolation)
  – rates of unemployment and low education among NH black residents
  – income inequality between black and white households

• We used data-reduction techniques to combine values of these indicators into an overall index of black infant mortality social determinants, with higher values representing worse health conditions.
Table 1. Indicator description and data source.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Definition</th>
<th>Source and year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>% of NH Black residents age 25 and older with less than a high school education</td>
<td>American Community Survey, 2009-2013 5-year estimate</td>
</tr>
<tr>
<td>Unemployment</td>
<td>% of NH Black residents in the civilian labor force who are unemployed</td>
<td>American Community Survey, 2009-2013 5-year estimate</td>
</tr>
<tr>
<td>Residential segregation</td>
<td>Isolation index ranging from 0 (complete integration) to 1 (complete segregation)</td>
<td>Census, 2010</td>
</tr>
<tr>
<td>Adult smoking</td>
<td>% of the adult population that currently smokes</td>
<td>BRFSS, 2006-2012 average</td>
</tr>
<tr>
<td>Poor mental health days</td>
<td>Average number of mentally unhealthy days reported in the past 30 days (age-adjusted)</td>
<td>BRFSS, 2006-2012 average</td>
</tr>
<tr>
<td>Poor physical health days</td>
<td>Average number of physically unhealthy days reported in the past 30 days (age-adjusted)</td>
<td>BRFSS, 2006-2012 average</td>
</tr>
<tr>
<td>Adult obesity</td>
<td>% of adults that report a BMI of ≥30</td>
<td>CDC Diabetes Interactive Atlas, 2011</td>
</tr>
<tr>
<td>Limited access to healthy foods</td>
<td>% of the population who are low-income and do not live close to a grocery store</td>
<td>USDA Food Environment Atlas, 2010</td>
</tr>
<tr>
<td>Homicide rate</td>
<td>Homicide deaths per 100,000 residents</td>
<td>CDC WONDER mortality data, 2006-2012 average</td>
</tr>
<tr>
<td>Air pollution</td>
<td>Daily fine particulate matter (average daily measure in micrograms per cubic meter)</td>
<td>CDC WONDER Environmental Data, 2011</td>
</tr>
<tr>
<td>Jail admissions</td>
<td>Annual admissions per 100,000 residents age 15-64</td>
<td>Bureau of Justice Statistics, 2012</td>
</tr>
<tr>
<td>Structural racism (Racial inequality in income)</td>
<td>NH White to NH Black ratio of median household income</td>
<td>American Community Survey, 2009-2013 5-year estimate</td>
</tr>
</tbody>
</table>
Power of Data
Flint, Michigan

Community voices humanize issues of class, race and power.

Without stories, a purely data-driven response can miss the mark.
Power of Data and Policy
Historical Highlights of Contraception

Slavery & Colonial America

- Enslaved African American women hid their cultural contraceptive methods to avoid punishment for not producing more children

- Some women ate the cottonwood plant as a method for abortion as a result of being raped by slave owners and masters

- Some used infanticide to avoid bringing children up during slavery

Historical Highlights of Contraception

19th Century
- African American women employed strategy of limiting family size and delaying marriage to improve their social and economic conditions to defeat white supremacy

20th Century
- 1918: Women's Political Association of Harlem & New York Urban League first Black organizations to provide education on birth control
- 1924: First Family Planning Clinic opened in Harlem
- 1950s: Eugenics and population control
- 1965: Birth control pill made available for married, white women only

Historical Highlights of Contraception

1970: President Nixon established Office of Economic Opportunity to fund family planning programs for Latino and African American communities.
Reproductive Choice for African-American Women

1) African-American women have always fought for self-determination over their bodies.

2) Opposition to family planning has a long-standing history.

3) Ideals of race-based eugenics still contaminate thinking regarding reproductive rights for African-American women.

Abdullahi, 2010
History of the term ‘Unintended’

- First used in a National Survey in 1965 and 1970 National Fertility Studies
- 1972 report of the Commission on Population Growth and the American Future, which showed that 44% of births to married couples in 1966–1970 were unintended.
- The Sample of women were aged 15 – 44 who had ever been married or had children of their own living in the household.
- There was no difference in the use of contraception in the “wanted” versus “unwanted” births.
- Poverty, educational level, and race were correlated with significant differences in “wantedness”.
Modern Contraception Works

The two-thirds of U.S. women at risk of unintended pregnancy who practice contraception consistently and correctly account for only 5% of unintended pregnancies.

Women at Risk (43 Million in 2008)
- 14% Nonuse or long gaps in use
- 18% Inconsistent use
- 68% Consistent use

By consistency of method use all year

Unintended Pregnancies (3.1 Million)
- 5% Consistent use
- 54% Nonuse
- 41% Inconsistent use

By consistency of method use during month of conception

Notes: “Nonuse” includes women who were sexually active, but did not use any method of contraception. “Long gaps in use” includes women who did use a contraceptive during the year but had gaps in use of a month or longer when they were sexually active. “Inconsistent use” includes women who used a method in all months that they were sexually active, but missed taking some pills, or skipped use or incorrectly used their barrier method or condom during some acts of intercourse. “Consistent use” includes women without any gaps in use who used their method consistently and correctly during all months when they were sexually active, including those who used a long-acting or permanent method.
Understanding Pregnancy Intention

Terms

Unintended: mistimed or unwanted

Mistimed: did not desire pregnancy at the time but want a future pregnancy

Unwanted: did not desire a pregnancy at the time or in the future

***Intended: desired pregnancy at the time or sooner
## Intention

<table>
<thead>
<tr>
<th>Category</th>
<th>White Women (15-44)</th>
<th>Hispanic Women (15-44)</th>
<th>Black Women (15-44)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unintended</strong></td>
<td>38 per 1,000</td>
<td>82 per 1,000</td>
<td>92 per 1,000</td>
</tr>
<tr>
<td></td>
<td>unintended</td>
<td>unintended</td>
<td>unintended</td>
</tr>
<tr>
<td><strong>Intended</strong></td>
<td>70%</td>
<td>57%</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>intended</td>
<td>intended</td>
<td>intended</td>
</tr>
<tr>
<td><strong>Unwanted</strong></td>
<td>9%</td>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>unwanted</td>
<td>unwanted</td>
<td>unwanted</td>
</tr>
<tr>
<td><strong>Mistimed</strong></td>
<td>11%</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>mistimed</td>
<td>mistimed</td>
<td>mistimed</td>
</tr>
</tbody>
</table>
### Table 6. Reasons for not using contraception at conception, among women who had an unintended birth in the 3 years before the Interview: United States, 2006-2010

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number of births in thousands</th>
<th>Did not expect to have sex</th>
<th>Did not think you could get pregnant</th>
<th>Didn't really mind if you got pregnant</th>
<th>Worried about side effects of birth control</th>
<th>Male partner didn't want you to use birth control</th>
<th>Male partner didn't want to use birth control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>2,442</td>
<td>17.3 (2.35)</td>
<td>35.9 (2.43)</td>
<td>23.1 (2.64)</td>
<td>14.1 (1.65)</td>
<td>5.3 (1.08)</td>
<td>8.0 (1.47)</td>
</tr>
<tr>
<td><strong>Unintended status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unwanted</td>
<td>900</td>
<td>22.3 (4.87)</td>
<td>39.6 (6.11)</td>
<td>7.6 (2.95)</td>
<td>18.9 (3.89)</td>
<td>3.7 (1.15)</td>
<td>5.0 (1.87)</td>
</tr>
<tr>
<td>Mistimedа</td>
<td>1,641</td>
<td>14.9 (2.36)</td>
<td>34.1 (2.96)</td>
<td>30.7 (3.52)</td>
<td>11.8 (1.72)</td>
<td>6.0 (1.50)</td>
<td>9.1 (2.03)</td>
</tr>
<tr>
<td>Less than 2 years too soon</td>
<td>711</td>
<td>9.6 (3.75)</td>
<td>32.9 (5.86)</td>
<td>54.7 (5.74)</td>
<td>9.0 (2.56)</td>
<td>7.0 (2.44)</td>
<td>6.6 (2.78)</td>
</tr>
<tr>
<td>2 or more years too soon.</td>
<td>908</td>
<td>19.0 (3.33)</td>
<td>35.3 (3.50)</td>
<td>12.2 (2.53)</td>
<td>14.3 (2.58)</td>
<td>5.2 (1.93)</td>
<td>10.6 (2.31)</td>
</tr>
<tr>
<td><strong>Age at birth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 25 years</td>
<td>1,239</td>
<td>20.3 (2.94)</td>
<td>34.7 (2.87)</td>
<td>16.1 (2.50)</td>
<td>14.0 (2.07)</td>
<td>6.3 (1.84)</td>
<td>8.2 (1.86)</td>
</tr>
<tr>
<td>25–44 years</td>
<td>1,202</td>
<td>14.2 (3.21)</td>
<td>37.2 (4.36)</td>
<td>30.3 (4.32)</td>
<td>14.2 (3.04)</td>
<td>4.2 (1.11)</td>
<td>7.9 (1.89)</td>
</tr>
<tr>
<td><strong>Marital or cohabiting status at birth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married or cohabiting</td>
<td>1,659</td>
<td>10.5 (2.26)</td>
<td>36.1 (3.21)</td>
<td>30.3 (3.46)</td>
<td>14.3 (2.39)</td>
<td>5.6 (1.42)</td>
<td>5.9 (1.30)</td>
</tr>
<tr>
<td>Neither married nor cohabiting</td>
<td>783</td>
<td>31.8 (4.40)</td>
<td>35.6 (4.49)</td>
<td>7.9 (1.96)</td>
<td>13.7 (2.50)</td>
<td>4.7 (1.75)</td>
<td>12.5 (2.83)</td>
</tr>
<tr>
<td><strong>Education at interviewа</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school diploma or GED or less</td>
<td>1,053</td>
<td>17.1 (4.16)</td>
<td>42.0 (4.84)</td>
<td>18.6 (3.01)</td>
<td>16.8 (3.32)</td>
<td>6.0 (1.64)</td>
<td>8.1 (2.03)</td>
</tr>
<tr>
<td>Some college or higher</td>
<td>773</td>
<td>12.9 (3.30)</td>
<td>25.7 (4.10)</td>
<td>38.0 (5.89)</td>
<td>12.0 (2.94)</td>
<td>3.2 (1.31)</td>
<td>7.5 (2.60)</td>
</tr>
<tr>
<td><strong>Percent of poverty level at interviewа</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%–99%</td>
<td>833</td>
<td>21.4 (4.45)</td>
<td>38.4 (4.49)</td>
<td>16.4 (3.24)</td>
<td>13.3 (2.51)</td>
<td>7.4 (2.00)</td>
<td>7.8 (1.83)</td>
</tr>
<tr>
<td>100% or higher</td>
<td>1,258</td>
<td>10.6 (2.60)</td>
<td>34.6 (3.72)</td>
<td>32.5 (4.29)</td>
<td>15.0 (2.79)</td>
<td>2.9 (0.91)</td>
<td>7.5 (2.06)</td>
</tr>
<tr>
<td><strong>Hispanic origin and race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latina</td>
<td>654</td>
<td>15.7 (4.45)</td>
<td>49.4 (5.00)</td>
<td>18.9 (4.04)</td>
<td>11.0 (3.33)</td>
<td>3.3 (1.52)</td>
<td>8.3 (1.92)</td>
</tr>
<tr>
<td>Not Hispanic or Latina:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, single race</td>
<td>985</td>
<td>12.3 (2.64)</td>
<td>35.2 (4.62)</td>
<td>33.7 (5.49)</td>
<td>12.2 (2.73)</td>
<td>6.9 (1.94)</td>
<td>6.1 (1.83)</td>
</tr>
<tr>
<td>Black or African American, single race</td>
<td>698</td>
<td>20.9 (4.79)</td>
<td>25.4 (3.49)</td>
<td>12.4 (3.50)</td>
<td>19.9 (3.63)</td>
<td>5.2 (2.29)</td>
<td>8.4 (3.06)</td>
</tr>
</tbody>
</table>
Intention

Unintended Pregnancy Rates, by State, in 2010

Unintended Pregnancy Workgroup
2003

- Effective programs to prevent unintended pregnancy must use terms that are familiar to women and must build upon cultural understanding of the problem to be prevented.

- Research should focus on the meaning of pregnancy intentions to women and the processes women and their partners use in making fertility decisions.

- It should prospectively address the impact of pregnancy intentions on contraceptive use.

- Both qualitative and quantitative research have contributed to our understanding of fertility decision making; both will be essential to the creation of more effective prevention programs.
Contraception

Changes in contraceptive method choice and use have not decreased the overall proportion of pregnancies that are unintended between 1995 and 2008 due, in part, to

- compositional changes in race and Hispanic origin in the U.S. population
- an increase in the proportion of births that were nonmarital from 1982

But, changes in contraceptive method use among married, non-Hispanic white women have contributed to a significant decline in the proportion of unintended births among this group.

CDC, 2012 National Health Statistics Report
Power of Policy
They’re a consequence of deliberate political action which can be undone with deliberate political action on many levels.

Decision-makers in all sectors of public service exhibited their racial prejudice and bias through policies disempowering families and communities of color.
87% of the Black experience has been under explicit racial oppression.

100% of the U.S. Black experience has been in struggle for humanity and equality.
Redlining is the practice of arbitrarily denying or limiting financial services to specific neighborhoods, generally because its residents are people of color or are poor.

Banks used the concept to deny loans to homeowners and would-be homeowners who lived in these neighborhoods. This in turn resulted in neighborhood economic decline and the withholding of services or their provision at an exceptionally high cost.
While discriminatory practices existed in the banking and insurance industries well before the 1930s, the New Deal’s Home Owners’ Loan Corporation (HOLC) instituted a redlining policy by developing color-coded maps of American cities that used racial criteria to categorize lending and insurance risks.

New, affluent, racially homogeneous housing areas received green lines while black and poor white neighborhoods were often circumscribed by red lines denoting their undesirability.
Mapping Inequality
Manhattan, New York 1940 Map
Infant Mortality

Rate of infant deaths (under one year old) per 1,000 live births

**Highest**

<table>
<thead>
<tr>
<th>Borough</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica and Hollis</td>
<td>9.0</td>
</tr>
<tr>
<td>Belmont and East Tremont</td>
<td>8.7</td>
</tr>
<tr>
<td>Central Harlem</td>
<td>8.1</td>
</tr>
<tr>
<td>Brownsville</td>
<td>8.0</td>
</tr>
<tr>
<td>Hunts Point and Longwood</td>
<td>7.8</td>
</tr>
<tr>
<td>East New York and Starrett City</td>
<td>7.8</td>
</tr>
<tr>
<td>Williamsbridge and Baychester</td>
<td>7.8</td>
</tr>
</tbody>
</table>

**Lowest**

<table>
<thead>
<tr>
<th>Borough</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper East Side</td>
<td>1.0*</td>
</tr>
<tr>
<td>Financial District</td>
<td>1.5*</td>
</tr>
<tr>
<td>Sunset Park</td>
<td>1.6</td>
</tr>
<tr>
<td>Borough Park</td>
<td>1.8</td>
</tr>
<tr>
<td>Greenwich Village and Soho</td>
<td>2.0*</td>
</tr>
</tbody>
</table>

*Interpret with caution due to small number of events

<table>
<thead>
<tr>
<th>Borough</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronx</td>
<td>5.7</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>3.9</td>
</tr>
<tr>
<td>Manhattan</td>
<td>3.4</td>
</tr>
<tr>
<td>Queens</td>
<td>4.7</td>
</tr>
<tr>
<td>Staten Island</td>
<td>4.7</td>
</tr>
</tbody>
</table>

**NYC Overall: 4.7**

Renter-Occupied Homes with Maintenance Defects

Percent of renter-occupied homes with one or more maintenance defect (water leaks, cracks and holes, inadequate heating, presence of mice or rats, toilet breakdowns or peeling paint)

### Highest Percent
1. South Crown Heights and Lefferts Gardens 85
2. Mott Haven and Melrose 79
2. Hunts Point and Longwood 79
4. Fordham and University Heights 79
5. Highbridge and Concourse 78

### Lowest Percent
59. Tottenville and Great Kills 18
58. South Beach and Willowbrook 29
57. St. George and Stapleton 36
56. Bayside and Little Neck 38
55. Flushing and Whitestone 38

### Borough Percent
- Bronx 69
- Brooklyn 62
- Manhattan 57
- Queens 51
- Staten Island 29

**NYC Overall: 59%**

Source: NYC Housing and Vacancy Survey, 2011
Jail Incarceration

Rate of adults who were incarcerated in local jails (not including prisons), per 100,000 adults ages 16 and older. Rate is derived from bi-weekly in-custody files from July 1 to Oct 9, 2014.

Highest

1. Morrisania and Crotona 371
2. Brownsville 348
3. Central Harlem 336
4. Mott Haven and Melrose 305
5. East Harlem 302

Lowest

59. Queens Village 5*
58. Bayside and Little Neck 12
57. Rego Park and Forest Hills 12
56. Financial District 15*
55. Upper East Side 15

*Interpret with caution due to small number of events

Borough

Bronx 156
Brooklyn 96
Manhattan 103
Queens 52
Staten Island 61

NYC Overall: 93

Source: NYC Department of Corrections, 2014

Note: DOC’s total average daily population over this time period was approximately 10,800, but only about 60% of inmates provided the agency with addresses in NYC that could be geocoded to Community District. As a result, this rate of incarceration is underestimated.
What connects these maps across 70 years of history?

Disinvestment in redlined neighborhoods

Low opportunity* (poor social determinants)

Poor health outcomes
Opportunity indicators include:
• High-quality education
• Stable housing
• Sustainable employment
• Healthy and safe environment
• Access to healthy food
• Positive social networks
• Political empowerment

For this discussion, OPPORTUNITY = Social Determinants
Social Determinants of Infant Mortality
Decline in Infant Mortality Rate in NYC has Slowed Over the Last 10 Years

Rate per 1,000 live births:
- **NYC IMR=11.6** (1620 deaths)
- **Healthy People 2020 Goal:** 6.0
- **2013 US IMR:** 5.96
- **NYC IMR=4.2** (516 deaths)

Source: Bureau of Vital Statistics; compiled by BMIRH
Despite Overall Decline in Infant Mortality Rate Disparities by Race/Ethnicity Remain, NYC 2014

Source: Bureau of Vital Statistics; compiled by BMIRH
Specific communities had the Highest Rates of IM

## INFANT MORTALITY

Table IM6. Infant and Neonatal Mortality Rates by Community District of Residence, New York City, 2010–2014

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Infant Mortality Rate</td>
<td>Neonatal Mortality Rate</td>
<td>Infant Mortality Rate</td>
</tr>
<tr>
<td>NEW YORK CITY</td>
<td>4.8</td>
<td>3.1</td>
<td>4.7</td>
</tr>
<tr>
<td>MANHATTAN</td>
<td>3.5</td>
<td>2.2</td>
<td>4.7</td>
</tr>
<tr>
<td>101 Battery Park, Tribeca</td>
<td>1.2</td>
<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td>102 Greenwich Village, SOHO</td>
<td>2.4</td>
<td>2.4</td>
<td>2.0</td>
</tr>
<tr>
<td>103 Lower East Side</td>
<td>2.6</td>
<td>1.3</td>
<td>2.4</td>
</tr>
<tr>
<td>104 Chelsea, Clinton</td>
<td>2.9</td>
<td>1.4</td>
<td>4.9</td>
</tr>
<tr>
<td>105 Midtown Business District</td>
<td>5.7</td>
<td>3.4</td>
<td>4.5</td>
</tr>
<tr>
<td>106 Murray Hill</td>
<td>2.3</td>
<td>1.5</td>
<td>2.1</td>
</tr>
<tr>
<td>107 Upper West Side</td>
<td>2.2</td>
<td>1.3</td>
<td>2.2</td>
</tr>
<tr>
<td>108 Upper East Side</td>
<td>1.5</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>109 Manhattanville</td>
<td>4.9</td>
<td>3.6</td>
<td>4.7</td>
</tr>
<tr>
<td>110 Central Harlem</td>
<td>8.4</td>
<td>5.7</td>
<td>8.1</td>
</tr>
<tr>
<td>111 East Harlem</td>
<td>5.3</td>
<td>3.9</td>
<td>6.0</td>
</tr>
<tr>
<td>112 Washington Heights</td>
<td>4.2</td>
<td>1.8</td>
<td>3.6</td>
</tr>
<tr>
<td>BRONX</td>
<td>5.6</td>
<td>3.7</td>
<td>5.7</td>
</tr>
<tr>
<td>201 Mott Haven</td>
<td>6.6</td>
<td>4.2</td>
<td>6.6</td>
</tr>
<tr>
<td>202 Hunts Point</td>
<td>8.7</td>
<td>5.5</td>
<td>7.8</td>
</tr>
<tr>
<td>203 Morrisania</td>
<td>6.9</td>
<td>3.9</td>
<td>7.7</td>
</tr>
<tr>
<td>204 Concourse, Highbridge</td>
<td>5.5</td>
<td>3.4</td>
<td>5.5</td>
</tr>
<tr>
<td>205 University/Morris Heights</td>
<td>6.1</td>
<td>4.4</td>
<td>5.4</td>
</tr>
</tbody>
</table>

There were 566,501 births and 2,453 infant deaths in the NY-NJ-PA Metropolitan Statistical Area from 2010-2013. 17% of the births were Black babies (169,382). 57% of the infant deaths were Black babies (1,399).

**Infant Mortality in NYC**

Black IM is 3x higher than the rate among White infants.
Leading Causes of Infant Death

1. Sudden Unexpected Infant Death Syndrome
2. Congenital Malformations
3. Preterm Related Conditions
Babies born at 20-37 weeks gestation are at risk for preterm related health conditions

<table>
<thead>
<tr>
<th>Clinical Risk Factors</th>
<th>Social Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Short cervix</td>
<td>• Racial residential segregation (isolation)</td>
</tr>
<tr>
<td>• Previous preterm birth</td>
<td>• Unemployment</td>
</tr>
<tr>
<td>• Short interval between pregnancies</td>
<td>• Median household income</td>
</tr>
<tr>
<td>• History of certain types of surgery on the uterus or cervix</td>
<td>• Structural racism (racial inequality in employment)</td>
</tr>
<tr>
<td>• Pregnancy complications such as multiple pregnancy and vaginal bleeding</td>
<td>• Gender inequality in earnings.</td>
</tr>
<tr>
<td>• Low pre-pregnancy weight</td>
<td></td>
</tr>
<tr>
<td>• Smoking during pregnancy</td>
<td></td>
</tr>
<tr>
<td>• Substance use during pregnancy</td>
<td></td>
</tr>
</tbody>
</table>
Congenital malformations are birth defects or conditions present at birth. They can cause problems in overall health, how the body develops or how the body works. Most common congenital malformations underlying cause of death include congenital malformation of the heart and chromosomal abnormalities.

<table>
<thead>
<tr>
<th>Clinical Risk Factors</th>
<th>Social Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Genetic or inherited causes including chromosomal defects, single gene defects,</td>
<td>• Uninsured rates</td>
</tr>
<tr>
<td>dominant or recessive inheritance</td>
<td>• Prevalence of sexually transmitted infections within</td>
</tr>
<tr>
<td>• Environmental causes including a drug, alcohol, or maternal disease</td>
<td>the population</td>
</tr>
<tr>
<td>• Multifactorial birth defects caused by a combination of genes and environmental</td>
<td>• Food insecurity</td>
</tr>
<tr>
<td>exposures.</td>
<td>• Limited access to healthy foods</td>
</tr>
</tbody>
</table>
SIDS/SUIDS

The sudden death of an infant less than 1 year of age that cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene, and a review of the clinical history. SUID category combines ICD–10 codes for SIDS, other ill-defined and unspecified causes of mortality, and accidental suffocation and strangulation in bed.

<table>
<thead>
<tr>
<th>Clinical Risk Factors</th>
<th>Social Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inadequate prenatal care</td>
<td>• Education</td>
</tr>
<tr>
<td>• Intrauterine growth restriction</td>
<td>• Income</td>
</tr>
<tr>
<td>• Short inter-pregnancy interval</td>
<td>• Single Parent</td>
</tr>
<tr>
<td>• Substance use</td>
<td>Households</td>
</tr>
<tr>
<td>• Viral respiratory infection</td>
<td></td>
</tr>
<tr>
<td>• Genetic factors</td>
<td></td>
</tr>
<tr>
<td>• Sleep environment</td>
<td></td>
</tr>
</tbody>
</table>
Crosscutting Themes

- Food insecurity
- Limited access to healthy foods
- Chronic stress (general, pregnancy related)
- Experiences of racism
- Housing access, affordability and quality
Black households in NYC earn on average about half the annual income of White households ($45,286 vs. $83,213). *(Fig 1.a)*

18 percent of Black residents age 25 and older have less than a high school education.
9% of Black Adults
Versus 5% of white adults are uninsured.

Black unemployment is 42% higher than whites.
55% of families have unaffordable housing

52% of children live in low income and single family households

Racial residential segregation: The Black-White dissimilarity index in Detroit is .51, meaning 51% of one group would have to move to a different neighborhood in order for the two groups to be equally distributed.

24% of adults are obese
2.6% of residents are low-income and do not live close to a grocery store.

3.2% average reported poor mental and physical health days
There are 2,081 annual jail admissions for every 100,000 residents and 3.7 homicide deaths per 100,000 residents.
Social determinants of IM

...in NBEC pilot cities

Black infant mortality rates are 12% lower for every $10,000 increase in the Black median household income.

The Black infant mortality rate increases by 3% with every 1% increase in Black unemployment.

The Black infant mortality rate is 3% lower for every 1% increase in the proportion of Black residents with a Bachelor’s degree or higher.

The Black infant mortality rate is 1% higher for every 1% increase in racial residential segregation.
Community Action Network Opportunities for Engagement
A consequence of deliberate political action which can be undone with deliberate political action on many levels.

Community Action Networks have major opportunities to build internal capacity and uplift their communities through prioritizing health equity when responding to issues that arise in data and interviews.

Using your power to operationalize equity will not only decrease preventable death, but improve quality
Despite available research, opinion leaders, local change agents, and policy makers give little attention to inequities and their root causes. Typically focus on remedial options...
• Using Birth Equity Index, data and stories
  – Identify crosscutting themes
  – Themes are barriers and opportunities for improving infant mortality
  – Assess capacity/readiness and address shortcomings (staff, partners, resources, knowledge)
  – Program practices, internal policies and local municipal policy have significant leverage
  – Maintain health and racial equity lens
• Remember
  – Program practices, internal policies and local municipal policy have significant leverage
  – Maintain health and racial equity lens

Pareto Principle
• 80% of the results will come from 20% of the action
• Focus the CAN on a few important actions to achieve the most significant impact
Opportunities for Engaging in SDHI

Preterm Related Conditions
• Responding to structural racism in housing and job markets
• Reducing Black unemployment
• Increasing median Black household income
• Gender equality in wages and salaries

Congenital Malformations
• Continue decreasing uninsured rates
• Reduce prevalence of sexually transmitted infections
• Support food security and access to healthy foods for low income families

SIDS/SUIDS
• Increase/support high quality education
• Support/provide resources and positive social networks for single parent households
Opportunities for Engaging in SDHI

Strategic Planning
• Do not reinvent the wheel, use available resources to help
• Determine staff and partner readiness for issues of race, power and inequality in your work
• Consider equity in training materials and interview protocol
• Consider equity when assessing data and when developing action plans with collective panel and partners

Coalition Building
• Partner with established organizations who have active community leadership
• Constantly assess and drive home importance of equity, culture-shifting
Policy Change Examples

• Leverage nurses and other staff to **assist in culture-shift to collaborative care** (assessments, referrals, relationship building)
• Influence partner organizations to prioritize racial equity in their work
• Trainings and workshops for interviewers to develop more cultural competence and manage implicit bias in response to maternal experiences of racism
• Work with community action teams to improve city-wide transportation infrastructure in response to data and maternal experience (signage, bike lanes, crossing guards, bus schedules, etc)
• Lead community action teams to activate against federal threats to Medicaid and public health infrastructure through the ACA, in response to overall disinvestment in health and safety
Questions?
Thank you

Founder President
drjoia@birthequity.org