RACE, PLACE & INFANT HEALTH:
UNDERSTANDING THE ROLE OF RACE AND PLACE ON HEALTH OUTCOMES AND INFANT MORTALITY

Presentation at the March of Dimes Cincinnati Regional Convening “Saving Ohio’s Babies: Preventing Premature Birth and Other Causes of Our Infant Mortality Crisis”
November 14, 2013, Cincinnati, OH

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Director of Health Equity, The Ohio Department of Health
## Infant Mortality Rates: Hamilton County

### 2008-2010 Infant Mortality Rates (Source: ODH & CityMatCH)

<table>
<thead>
<tr>
<th>Region</th>
<th>Overall IMR (CI 95%)</th>
<th>Non-Hispanic White IMR (95% CI)</th>
<th>Non-Hispanic Black IMR (95% CI)</th>
<th>Black:White Rate Ratio (inequity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>7.5</td>
<td>6.2</td>
<td>14.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Hamilton County</td>
<td>9.9 (8.8, 11.0)</td>
<td>6.1 (5.3, 6.8)</td>
<td>17.0 (14.8, 19.2)</td>
<td>2.0</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>12.3 (11.1, 13.4)</td>
<td>6.3 (4.2, 8.4)</td>
<td>17.7 (15.6, 19.8)</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Approaches to Understanding Health Inequity

- Social Determinants of Health
- Neighborhood and Built Environment
- Health and Health Care
- Social and Community Context
- Economic Stability

Life Course Perspective

- Your Mother's/Father's Life
- Your Life
- Your Child's Life

Public Policy

- Community (cultural values, norms)
- Schools (environment, ethos)
- Interpersonal (social network)
- Individual (knowledge, attitude, skills)

UNNATURAL CAUSES
Is Inequality Making Us Sick?
Expanding Our Understanding of Factors Driving Maternal and Infant Health

Other than improving our understanding, what interventions and strategies do these concepts suggest?
What is a healthy community? A community where your zip code isn’t the biggest impediment to success in your life.

“Point to a group of toddlers in a low-income neighborhood, and — especially if they’re boys — they’re much more likely to end up dropping out of school, struggling in dead-end jobs and having trouble with the law.

Something is profoundly wrong when we can point to 2-year-olds in this country and make a plausible bet about their long-term outcomes — not based on their brains and capabilities, but on their ZIP codes.”

Place & the Intersection with Race & Poverty

- The intersection of poverty, place and structure can be profound (radically impacting life experience and stress)
  - The wicked triangle
  - What about the intersection of poverty, place & race?

“A month ago, **13** people lived in this **2** bedroom, **1** bath home.”
There’s A Map For That

Mapping can provide a detailed view of community conditions, enhances analysis, the targeting of resources and can help engage the community.
Methodology

Vital Statistics Data

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of births</th>
<th>Low weight births &lt;2500 g</th>
<th>Preterm births &lt;37 weeks</th>
<th>Percent LBW</th>
<th>Percent preterm</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>1434</td>
<td>150</td>
<td>174</td>
<td>10</td>
<td>11.6</td>
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<tr>
<td>04</td>
<td>388</td>
<td>25</td>
<td>47</td>
<td>6.4</td>
<td>12.1</td>
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<tr>
<td>00</td>
<td>313</td>
<td>26</td>
<td>43</td>
<td>8.3</td>
<td>13.7</td>
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<td>10.3</td>
</tr>
<tr>
<td>06</td>
<td>250</td>
<td>22</td>
<td>22</td>
<td>8.8</td>
<td>9.0</td>
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<tr>
<td>00</td>
<td>243</td>
<td>32</td>
<td>43</td>
<td>13.2</td>
<td>20.2</td>
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<tr>
<td>02</td>
<td>220</td>
<td>32</td>
<td>43</td>
<td>14.5</td>
<td>19.5</td>
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<tr>
<td>00</td>
<td>211</td>
<td>14</td>
<td>12</td>
<td>6.6</td>
<td>5.7</td>
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<tr>
<td>03</td>
<td>209</td>
<td>13</td>
<td>18</td>
<td>6.2</td>
<td>8.6</td>
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<tr>
<td>03</td>
<td>204</td>
<td>24</td>
<td>26</td>
<td>11.8</td>
<td>13.7</td>
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<tr>
<td>00</td>
<td>201</td>
<td>6</td>
<td>15</td>
<td>4</td>
<td>7.5</td>
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<tr>
<td>02</td>
<td>196</td>
<td>17</td>
<td>25</td>
<td>8.7</td>
<td>13.3</td>
</tr>
<tr>
<td>02</td>
<td>196</td>
<td>10</td>
<td>28</td>
<td>9.6</td>
<td>14.9</td>
</tr>
<tr>
<td>00</td>
<td>196</td>
<td>21</td>
<td>34</td>
<td>11.3</td>
<td>19.3</td>
</tr>
</tbody>
</table>
LBW & Prematurity Hot Spots
Understanding the Data

Best Birth Outcomes

Worst Birth Outcomes

Best Birth Outcomes

Worst Birth Outcomes
Franklin, Ohio. Bivariate Thematic Map. 2006-2010 Low Birth Weight and Preterm Births by Census Tract. “Hot Spots”
## Understanding the Connection: Birth Outcomes and Social Determinants of Health

### Enhanced Demographic Snapshot

<table>
<thead>
<tr>
<th>Description</th>
<th>Franklin County Infant Mortality Hot Spots</th>
<th>%</th>
<th>Franklin County Infant Mortality Cool Spots</th>
<th>%</th>
<th>Franklin County [CTY, 39049]</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Household Income by Single Race Classification or Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Alone</td>
<td>$29,382</td>
<td></td>
<td>$56,463</td>
<td></td>
<td>$53,953</td>
<td></td>
</tr>
<tr>
<td>Black or African American Alone</td>
<td>$25,647</td>
<td></td>
<td>$47,463</td>
<td></td>
<td>$34,359</td>
<td></td>
</tr>
<tr>
<td>American Indian and Alaska Native Alone</td>
<td>$40,357</td>
<td></td>
<td>$35,714</td>
<td></td>
<td>$36,414</td>
<td></td>
</tr>
<tr>
<td>Asian Alone</td>
<td>$17,500</td>
<td></td>
<td>$34,342</td>
<td></td>
<td>$51,586</td>
<td></td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander Alone</td>
<td>$0</td>
<td></td>
<td>$38,750</td>
<td></td>
<td>$42,788</td>
<td></td>
</tr>
<tr>
<td>Some Other Race Alone</td>
<td>$36,875</td>
<td></td>
<td>$33,188</td>
<td></td>
<td>$38,992</td>
<td></td>
</tr>
<tr>
<td>Two or More Races</td>
<td>$30,606</td>
<td></td>
<td>$40,496</td>
<td></td>
<td>$35,581</td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>$41,346</td>
<td></td>
<td>$34,236</td>
<td></td>
<td>$39,442</td>
<td></td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>$26,290</td>
<td></td>
<td>$55,209</td>
<td></td>
<td>$48,628</td>
<td></td>
</tr>
<tr>
<td>Males Divorced</td>
<td>387</td>
<td>4.72%</td>
<td>2,989</td>
<td>3.81%</td>
<td>43,359</td>
<td>4.63%</td>
</tr>
<tr>
<td>Females Divorced</td>
<td>790</td>
<td>9.64%</td>
<td>4,458</td>
<td>5.72%</td>
<td>68,657</td>
<td>7.33%</td>
</tr>
<tr>
<td>American Indian and Alaska Native Alone</td>
<td>43</td>
<td>0.40%</td>
<td>174</td>
<td>0.19%</td>
<td>2,839</td>
<td>0.24%</td>
</tr>
<tr>
<td>Asian Alone</td>
<td>54</td>
<td>0.50%</td>
<td>4,362</td>
<td>4.79%</td>
<td>46,996</td>
<td>4.00%</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander Alone</td>
<td>4</td>
<td>0.04%</td>
<td>25</td>
<td>0.03%</td>
<td>798</td>
<td>0.07%</td>
</tr>
<tr>
<td>Some Other Race Alone</td>
<td>84</td>
<td>0.78%</td>
<td>1,006</td>
<td>1.10%</td>
<td>29,733</td>
<td>2.53%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>420</td>
<td>3.89%</td>
<td>2,005</td>
<td>2.20%</td>
<td>36,587</td>
<td>3.11%</td>
</tr>
</tbody>
</table>
Understanding the Connection: Birth Outcomes and Social Determinants of Health

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<th>%</th>
<th>Franklin County [CTY, 39049]</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Household Size</td>
<td>2.40</td>
<td></td>
<td>2.14</td>
<td></td>
<td>2.39</td>
<td></td>
</tr>
</tbody>
</table>

### Housing

<table>
<thead>
<tr>
<th>Tenure of Occupied Housing Units</th>
<th>4,450</th>
<th>41,243</th>
<th>481,382</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner Occupied</td>
<td>2,026</td>
<td>22,964</td>
<td>274,425</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>2,432</td>
<td>18,269</td>
<td>206,957</td>
</tr>
</tbody>
</table>

### Labor Force

<table>
<thead>
<tr>
<th>Not in Labor Force</th>
<th>3,518</th>
<th>20,870</th>
<th>277,844</th>
</tr>
</thead>
</table>
The Geography of Infant Mortality: Hamilton County, OH (Infant Mortality Rate by Tract)
Infant Mortality Rate by Census Tract: Neighborhood View
The Life Course Perspective: Where Does Place Fit?

- Individuals w/ Challenging Life Course Experiences
- Concentrated Poverty, Community Stressors & Segregation

Infant Mortality Hot Spot:
High Concentration of Individuals with Challenging Life Course Experiences Living in Distressed Communities & Isolated from Opportunity
**Community Stressors: Foreclosure/Vacant Housing**

**Impact of vacancies**

Cincinnati’s West Side neighborhoods have the highest percentage of their housing condemned and vacant. South Fairmount has the highest rate; Mount Lookout has the lowest. The citywide rate was 1.5 percent.

**CONDEMNED/VACANT AS PCT. OF NEIGHBORHOOD**

- 3.65% to 13.09%
- 1.50% to 3.65%
- 0.77% to 1.50%
- 0.26% to 0.77%
- 0.04% to 0.26%
- No data available

**Sources:**
City of Cincinnati, Enquirer analysis
The Enquirer/Mike Nyerges and Mark Wert
Community Stressors: Crime
Community Stressors: Incarceration Rates
Understanding Place Based Challenges: History Matters (Hamilton County Redlining Map)
Contemporary Community Development Challenges

- Vacant property & disinvestment
- Housing instability
- Concentrated poverty & social/community impacts from concentrated poverty
- Economic isolation & weak tax base
- Weak civic engagement/community organization
- Poor educational opportunities
- Food insecurity
- Crime, safety and health risks
- Impediments to employment for residents
- Limited public resources/funds to spur redevelopment
- Complexity (challenges are often systemic & interactive)
### Investing in People

- Asset & Wealth Building
- K 12 School Reform
- Magnet Schools
- Civic & Youth Engagement
- Mentoring & Leadership Training
- Job Training & Labor Force Development
- Reentry Programs for Ex Offenders
- Early Childhood Care & Education Services
- Family Supportive Services

### Investing in Places

- Vacant Land Redevelopment, Land Banking & Blight Removal
- Community Land Trusts & Housing Stabilization
- Community Development & Infrastructure Investments
- Coordinated Service Delivery for Service Providers & Organizations
- Foreclosure Prevention
- Small Business Development & Business Incubation
- Community Health Investments & Fresh Food Initiatives
- Improving Infrastructure and Open Space
- Community Crime Prevention & Supporting Safescapes

### Supporting Linkages

- Assuring Housing Mobility Through Regional Housing Strategies
- Supporting Fair Housing Enforcement
- Supporting Inclusionary Housing Development
- Developing Transit Infrastructure
- Pedestrian & Bicycle Infrastructure Investments
- Supporting Strong Professional & Business Networks
- Transit Oriented Development
- Bus Rapid Transit Systems
- Developing Regional Greenways & Non Motorized Paths

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**Addressing Community Stressors: An Opportunity Oriented Model of Community Development**
Strategies for Success

• The need to think in a long term and comprehensive manner were summarized by Jonathan Fanton, former President of the MacArthur Foundation:

  • “…sustainable neighborhood improvement requires long-term, simultaneous investment in all the issues—schools, housing, health, jobs, economic development, safety, community cohesion, and more—that must improve together in a reinforcing virtuous circle.
  • …Practically speaking, this may mean applying a comprehensive lens and working first on the few interventions with the greatest potential to stimulate further change.”

Using Data to Inform Our Actions: Mixing Quantitative w/ Qualitative Data

Utilize Data to Better Target Interventions Into Places
How can we move infant mortality rates or other targeted metrics? What do we need to do: collective action, targeted interventions, collaborative & holistic approaches

Ground data with narrative, human experience
Be creative, not all data is quantitative Respect the power of participatory data and local knowledge
Conclusion or the Beginning? Parting Thoughts

• Disparities in infant mortality will continue unless we begin to think and act differently to address this problem.

• In order to prevent infant mortality we must think beyond poor birth outcomes.

• Acquire the courage to move beyond your professional and programmatic silos. This means working with other partners to address infant mortality in a comprehensive manner. Otherwise we will be attending infant mortality conferences for the next twenty-five (25) years!

• We must focus on increasing opportunity in low resource neighborhoods. Understanding where the problem exist is not enough! This means changing policy.

• Do not be afraid of data and technology. If you will embrace it you will be able to make decisions that will lead to better outcomes.