Promoting Equity in Birth Outcomes in Urban Communities Using a Data-Informed, Community-Driven Approach

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Presenters:
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Agenda

1. Looking at Local Data
2. Creating a Narrative
3. Engaging Our Community
Who’s in the room?

- Your name
- The organization you are representing and your role
- What are you looking forward to doing in San Diego? What brought you to this session?
National membership organization of city and county health departments' maternal and child health (MCH) programs and leaders representing urban communities in the United States.

The mission of CityMatCH is to strengthen public health leaders and organizations to promote equity and improve the health of urban women, families, and communities.
The Institute for Equity in Birth Outcomes

A high-visibility, national movement of urban communities implementing data-informed, community-driven strategies to reduce inequities in birth outcomes.
# Equity Institute Teams

<table>
<thead>
<tr>
<th>National</th>
<th>Ohio</th>
<th>Detroit</th>
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</thead>
<tbody>
<tr>
<td>Seattle-King Co., WA</td>
<td>Columbus</td>
<td>City of Detroit, Michigan</td>
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<tr>
<td>Memphis-Shelby Co., TN</td>
<td>Cincinnati</td>
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<td>Orlando-Orange Co., FL</td>
<td>Cleveland-Cuyahoga Co.</td>
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<td>West Palm Beach, FL</td>
<td>Youngstown-Mahoning Co.</td>
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<tr>
<td>City of San Francisco, CA</td>
<td>Butler Co.</td>
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<td>City of Baltimore, MD</td>
<td>Toledo-Lucas Co.</td>
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<td>St. Louis City &amp; County</td>
<td>Summit Co.</td>
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<td>Ramsey County, MN</td>
<td>State of New Mexico</td>
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<td>Solano County, CA</td>
<td>State of Louisiana, Region 7</td>
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<td>Kent County, MI</td>
<td>Province of New Mexico</td>
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<td>Davidson County, TN</td>
<td>City of Detroit</td>
<td></td>
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<tr>
<td>State of New Mexico</td>
<td>State of Louisiana</td>
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<tr>
<td>State of Louisiana, Region 7</td>
<td>Columbus - Cuyahoga Co.</td>
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<td>Dayton-Montgomery Co.</td>
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What is Different About the Equity Institute?

Strategies to address birth outcome disparities

Data Informed
Community Driven
What is Different About the Equity Institute?

- Look at local data & evaluate local capacity
- Authentically engage the local community & build a community coalition
- Set priorities and select upstream and downstream strategies
What is Different About the Equity Institute?

Implement strategies to address birth outcome disparities

Evaluate impact

Disseminate findings
Looking at Local Data
Local Data
Cause of Death from Death Certificate

Infant death

- Prematurity (and perinatal conditions)
- Congenital Anomalies
- SIDS, Suffocation
- Infections and diseases
- Accidents, assault

Preterm birth is the greatest contributor to infant death, with most preterm-related deaths occurring among babies who were born very preterm (CDC)
Perinatal Periods of Risk Approach

- Simple analytic framework for investigating feto-infant mortality at a local level
- Basic epidemiological tool
- A community tool to improve the health of women and infants
Perinatal Periods of Risk Approach

- Dividing mortality into 4 periods based on:
  - Age at death
  - Weight at birth

- Using fetal death data

- Use a reference group
Experts used statistics to combine boxes with similar causes of death and risk factors.
The 4 perinatal periods of risk were named to suggest prevention areas.
Each period of risk provides us with a set of preventive directions.
How Can we Measure Birth Outcome Disparities?

- Both groups are experiencing the majority of IM in the Maternal Health/Prematurity Period of Risk.
- NH Blacks have almost twice the rate of IM occurring in the Maternal Health/Prematurity Period.
- NH Black are experiencing an excess of about 5 infant deaths/1,000 live births (14.3 - 9.1 = 5.2).

<table>
<thead>
<tr>
<th></th>
<th>All 2006-2010</th>
<th>NH Black 2006-2010</th>
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<tbody>
<tr>
<td>PPOR Fetal and infant deaths per 1,000 live births and fetal deaths</td>
<td>4.1</td>
<td>7.3</td>
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<td></td>
<td>1.8</td>
<td>1.2</td>
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<tr>
<td></td>
<td>9.1</td>
<td>14.3</td>
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</table>
Using a Reference Group

• But... what rates can we expect to see in each Period of Risk?

• PPOR answers this question using a reference group, a real population of mothers that experience best outcomes:
  • low fetal and infant mortality rates
Measuring Inequity

- By using the reference group, PPOR helps measure “Inequity”

Remember:
- Inequity is a disparity that is unnecessary and unfair
- Unnecessary deaths are those that could be prevented
- In PPOR, preventability is estimated on a population basis by comparing the community’s outcomes to the outcomes of a real “reference group”
Example of a Reference Group

Reference Group Characteristics:

- 20+ years of age
- 16+ years of education
- Non-Hispanic White
- Resident of the State at the time of baby’s birth

State Reference Group

<table>
<thead>
<tr>
<th></th>
<th>1.8</th>
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<tbody>
<tr>
<td></td>
<td>1.2</td>
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<td></td>
<td>1.0</td>
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<td>0.7</td>
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</table>

4.7

* per 1000 live births and fetal deaths
# Measuring Excess Mortality

<table>
<thead>
<tr>
<th></th>
<th>All 2006-2010</th>
<th>State Reference Group</th>
<th>Excess Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess Mortality</td>
<td>4.1</td>
<td>1.8</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>1.8 1.2 2.0</td>
<td>1.2 1.0 0.7</td>
<td>0.6 0.2 1.3</td>
</tr>
<tr>
<td></td>
<td>9.1</td>
<td>4.7</td>
<td>4.4</td>
</tr>
</tbody>
</table>

*per 1000 live births and fetal deaths

**Where is most of the excess mortality taking place?**
### Measuring Excess Mortality Among Non-Hispanic Blacks

<table>
<thead>
<tr>
<th>Black IM 2006-2010</th>
<th>State Reference Group</th>
<th>Excess Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3</td>
<td>1.8</td>
<td>5.5</td>
</tr>
<tr>
<td>2.7</td>
<td>1.2</td>
<td>1.6</td>
</tr>
<tr>
<td>1.3</td>
<td>1.0</td>
<td>0.4</td>
</tr>
<tr>
<td>2.9</td>
<td>0.7</td>
<td>2.2</td>
</tr>
<tr>
<td>14.3</td>
<td>4.7</td>
<td>9.6</td>
</tr>
</tbody>
</table>

* per 1000 live births and fetal deaths

Where would you focus your efforts to address the B/W birth outcome disparities?

**Black/White IM Ratio = 2.2**
But...

What do you do with this information?
Creating a Narrative
For example, why do we see so many excess deaths in the prematurity/maternal health period of risk?
PREMATURITY

- <37 weeks
- 32-36 weeks
- <32 weeks

Previous spontaneous preterm
Preconception Health
Short inter-pregnancy interval
Congenital Anomalies
Twins, triplets etc.
Smoking

During pregnancy
Stress
Chronic Disease
Obesity**
Hypertension
Diabetes

Environmental exposure
Maternal age and diet
Heredity
Assisted Reproductive Technology
## Population Attributable Risk

<table>
<thead>
<tr>
<th>Important Contributors to Prematurity Among Urban non-Hispanic Black Women</th>
<th>Black % with factor</th>
<th>Ref % with factor</th>
<th>RR for VPTB among Black</th>
<th>PAR for VPTB among Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not married at time of baby’s birth (SES, social support)</td>
<td>89</td>
<td>6</td>
<td>1.4</td>
<td>25%</td>
</tr>
<tr>
<td>Birth spacing shorter than 18 months</td>
<td>36</td>
<td>34</td>
<td>1.4</td>
<td>13%</td>
</tr>
<tr>
<td>High school or less education (SES)</td>
<td>58</td>
<td>N.A.</td>
<td>1.3</td>
<td>13%</td>
</tr>
<tr>
<td>Previous Preterm Birth</td>
<td>8</td>
<td>2</td>
<td>3.0</td>
<td>13%</td>
</tr>
</tbody>
</table>
“Not Married at the Time of Baby’s Birth”

- Proxy for socioeconomic status
  
  “Two salaries are better than one”

- Proxy for measuring our social safety net/social networks

- What can you do in your community to strengthen families?
“Having less than a high school education”

- Proxy for socioeconomic status
- Gives us a picture of the mother’s upbringing
- What are some barriers that prevent people from graduating from high school?
- What are the economic opportunities available for high school drop outs?
“Birth Spacing Shorter Than 18 Months”

- What are policies that enable/prevent women from having access to contraception?

- What are the cultural norms in your community regarding contraception?
More Data Sources to Create a Narrative

**Fetal Infant Mortality Review**

- A formalized method for gathering **QUALITATIVE** information about individual cases of infant and fetal death, which are considered “sentinel events.”

- In-depth case reviews can provide a missing piece of the infant mortality puzzle.

- Brings a human face to the problem
More Data Sources to Create a Narrative

Your Community!
Examples of Initiatives

• Improving **Perinatal Care** using a system of coordinated intake and referral

• Increasing **Social Support** through healing circles

• Increasing use of **Long Acting Reversible Contraceptives** by educating providers, patients, and reforming policies for insurance reimbursement

• Increasing access and capacity for **Group Prenatal Care**

• Removing barriers to **Progesterone Therapy**
Authentically

Engaging Your Community
Authentic Community Engagement

**What?**
- Collaboration
- Communication
- Mobilization
- Community participation

**Why?**
- Community members want, and DESERVE, their say
- The challenges are important and complex
- Can lead to tangible results
- Empower citizens
Our Community Vision for Change

• Draft your own personal vision – words or images – whatever comes to mind.
• Get into pairs and share your visions with each other, listening for commonalities and also unique elements that inspire them.
• Share key elements of your shared visions
• Based upon this vision, identify the important levers for change that are needed to make your emerging vision a reality. Consideration of these levers will be important in defining your group’s common agenda.
# Our Community Vision for Change

<table>
<thead>
<tr>
<th>Type of Change</th>
<th>Priorities for Change in our Community</th>
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</thead>
<tbody>
<tr>
<td>Systems</td>
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<tr>
<td>Institutions or Organizations</td>
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<tr>
<td>Resources</td>
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<tr>
<td>Relationships</td>
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</table>
Stakeholders Wheel

- Members are currently represented on your team
- Has been/will be contacted to participate on your team
- Not currently represented or contacted, but will consider
Steps to Community Engagement

- Get close
- Build trust
- Let needs emerge
- Embrace all
- Build a collaborative culture
Community Engagement Spectrum

**Inform**
- To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, or solutions

**Consult**
- To gather feedback from targeted stakeholders on the project’s goals, processes, shared metrics, or strategies for change

**Involve**
- To work directly with stakeholders to ensure that concerns are consistently understood and considered

**Collaborate**
- To partner with stakeholders in each aspect of decision-making, including the development of alternatives and priorities

**Co-Lead**
- To place final decision making in the hands of stakeholders so that they drive decisions and implementation of the work

Source: Adapted from Tamarack Institute Community Engagement Continuum
The Community Engagement Spectrum

Instructions:

- Using the **Community Engagement Spectrum** table, brainstorm actions that will take your team closer to authentically engaging your community.
### Increasing Level of Stakeholder Engagement

<table>
<thead>
<tr>
<th>Engagement Goals</th>
<th>Inform</th>
<th>Consult</th>
<th>Involve</th>
<th>Collaborate</th>
<th>Co-Lead</th>
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<tbody>
<tr>
<td><strong>1. Understand system changes</strong></td>
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<td>Surveys or interviews about lived experience</td>
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<tr>
<td>Engage new voices in workgroups</td>
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<td>Engage new voices in workgroups</td>
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<tr>
<td>Invite community members to join Steering Committee</td>
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<td><strong>2. Co-create solutions</strong></td>
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<tr>
<td>Interviews about strategies for change</td>
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<tr>
<td>Recruit community members to lead workgroups</td>
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<tr>
<td>Enlist community members to co-direct strategies</td>
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<tr>
<td><strong>3. Verify the direction</strong></td>
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<tr>
<td>Public meeting to solicit reactions to draft common agenda</td>
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<td><strong>4. Expand reach</strong></td>
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<td>Press/ad campaign</td>
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<tr>
<td><strong>5. Build community capacity to lead to change</strong></td>
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<tr>
<td>Community Training</td>
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<tr>
<td>Enlist community members as spokespersons or trainers</td>
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Source: FSG
Five Conditions for Collective Impact

- Specialized Agendas
- Fragmented Measurements
- Independent Activities
- Sporadic Communication
- Unsupported Efforts

- Common Agenda
- Shared Measurement
- Mutually Reinforcing Activities
- Continuous Communication
- Backbone Organization

Source: Tamarack Institute for Community Engagement
Common Agenda

- Define the challenge to be addressed.
- Acknowledge that a collective impact approach is required.
- Establish clear and shared goal(s) for change.
- Identify principles to guide joint work together.
## Tool – Creating a Common Agenda

<table>
<thead>
<tr>
<th>Influential Factors</th>
<th>Problem or Issue</th>
<th>Desired results (outputs, outcomes and impact)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community needs/assets</td>
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<tr>
<td>Strategies</td>
<td>Assumptions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4</th>
<th>1</th>
<th>3</th>
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<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
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</table>

Source: Kellogg Foundation, 2004
Shared Measurements

- Identify key measures that capture critical outcomes.
- Establish systems for gathering and analyzing measures.
- Create opportunities for “making-sense” of changes in indicators.
Tool - Shared Measurement Mapping

- Process Measures
- Program Measures
- Policy Change Measures
- Population Indicators

Shared Measurement
Mutually Reinforcing Activities

- Agreement on key outcomes.
- Orchestration and specialization.
- Complementary – sometimes “joined up” - strategies to achieve outcomes.
Continuous Communication

- Create formal and informal measures for keeping people informed
- Communication is open and reflect a diversity of styles
- Difficult issues are surfaced, discussed and addressed
Backbone Organization

- Guide vision & strategy
- Support aligned activities
- Established shared measurements
- Build public will
- Advance policy
- Mobilize funding
Some Results

✓ Increased awareness of infant mortality and birth outcome disparities.
✓ Increased access and use of LARC’s
✓ Increased capacity to identify women eligible for progesterone therapy
✓ More women from target populations enrolled and completing Group Prenatal Care
✓ Decrease % of low birth weight infants
✓ Decrease in maternal depression
✓ Decrease use of tobacco & alcohol
Questions?
Thank you!

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