A Community Approach to Addressing Inequities in Infant Mortality

Meredith Shockley-Smith, PhD
Executive Director, Cradle Cincinnati
Field Service Assistant Professor-AFF, UCMC
Founder, Queens Village

James M. Greenberg, MD
Co-Director, Perinatal Institute
Professor, Department of Pediatrics, Division of Neonatology
A Community Approach to Addressing Inequalities in Infant Mortality - Part 1

James M. Greenberg, MD
Co-founder, Cradle Cincinnati
Co-director, Perinatal Institute
Professor of Pediatrics
Cincinnati Children’s Hospital Medical Center
University of Cincinnati College of Medicine
Infant Mortality is a Wicked Problem

- Tame: a problem you can solve
  vs.
- Wicked (malignant/risky/tricky/aggressive): a problem you can work at
- Wicked problems:
  - Lack a common definition
  - Require continuous (endless) attention
  - No single solution (bad/better/best)
  - Difficult to validate solutions
Infant Mortality is a Wicked Problem

– Controlled trial and error is risky/impossible
– The value of previous knowledge is limited
– Are characterized by a more desired future state
– Those who attempt to solve wicked problems are open to criticism if they are “wrong”
What is **cradle cincinnati**?

- Co-Founded with Elizabeth Kelly, MD, MPH, Executive Vice Chair, Department of Obstetrics and Gynecology, UCCOM in 2013 as a collective impact collaborative to eliminate infant mortality in Hamilton County OH
- Response to excess infant morality in metropolitan Cincinnati
- Housed within the Perinatal Institute at the Cincinnati Children’s Research Foundation/Cincinnati Children’s Hospital Medical Center
Where Are We Today? All Cause Infant Mortality Hamilton County Ohio 2011-2021
Infant Mortality Rate, Hamilton County, 2016-2021

Key Points:
- In 2021, 66 babies died in Hamilton County – 10 fewer than in 2020.
- With 10,266 live births, the 2021 Hamilton County infant mortality rate was 6.4 deaths per 1,000 live births.
- This is by far the lowest rate ever measured in Hamilton County since modern record keeping began in 1968.
- Hamilton County below the state (7.8)\(^1\) and above the nation (5.6)\(^3\).

Sources:
1. Ohio Department of Health (ODH) (2021)
2. Hamilton County Fetal and Infant Mortality Review (FIMR)
Questions

• What did you do?
• How did you do it?
• What are your interventions?
• We want to do this in (insert location/organization here). Can you help us get started?
“Answers”

- Specifics are important
- But not necessarily relevant
- Context is key: “All politics is local”

But there are generalizable concepts
1. Choose a Framework

- Infant Mortality is a wicked problem
- Collective Impact: a framework for wicked problems
  - Common agenda
  - Shared measurement
  - Mutually reinforcing activities
  - Continuous communication
  - Backbone organization
- Cradle Cincinnati June, 2013
- www.cradlecincinnati.org
2. Define the Primary Outcome

• The single variable that you will use to judge success.
• Measurable
• Easily understood
• Matters to all stakeholders
Infant Mortality!

- Among standard public health metrics, infant mortality is considered the “canary in the coal mine” as a measure of overall community well-being.
  - Deaths per 1,000 live births in a specific geographic location
  - “Live birth” in Ohio includes any baby who is born and either: has a pulse OR takes a breath OR shows movement of voluntary muscles at any gestational age
  - Counted until first birthday
  - Counted at Mom’s home address
3. Define the Geography

- High incidence
- Reliable and sustainable measurement
- Minimal contamination
- Hamilton County OH
  - 10,200 live births/year
  - 2007: 120 infant deaths
  - Two major public health department jurisdictions
Some Compromises
4. Data, Data, Data

- Sources
- Access
- Trust
- ODH
- Hamilton County
- City of Cincinnati
- Maternity centers

Causes of Infant Death
Hamilton County 2015-2019

- 56% Preterm birth-related
- 23% Birth defect-related
- 14% Sleep-related
- 7% Other

Sources: Hamilton County FIMR, Hamilton County Public Health, City of Cincinnati Health Department
5. Translate Theory Into Action

• Theory (preterm birth):

- SES
- Stress
- Racism
- Social Determinants
- Health Behaviors
- Geography
- Nutrition

- Infection
- Inflammation
- Genetics
- Health Status

Preterm Birth

- Uterine contractions
- Dilation of cervix/LUS
- ROM

Term Birth
A. Strategy

• Is it effective?
  – Published evidence/Plausibility
  – Learning from others

• Will it matter?

• Is it feasible?
  – Cost
  – Time

• Is it measurable?
B. Tactics

• The “3 S’s”
  – Smoking
  – Spacing
  – Sleep

• Smoking
• Spacing
• Sleep
• Equity
6. Avoid Well-Intended Distractions

• Impact on IMR:
  – Parent support/Home visiting
  – Poverty
  – Education
  – Housing
  – Breast feeding
7.

Health Care ≠ Public Health

Health Care & Public Health
Racial Disparity in Infant Mortality, Hamilton County and United States, 2000-2021

Key Point:
- The racial disparity in infant mortality continues in Hamilton County.

Notes:
- Black = non-Hispanic Black as defined by another
- White = non-Hispanic White as defined by another
- 2020-2021 United States data mortality by race/ethnicity not yet released.

Sources:
- Centers for Disease Control and Prevention (CDC)
- Ohio Department of Health (ODH)
- Hamilton County Infant and Infant Mortality Review (NMR)
Learning Along the Way…

Number of infant deaths

- Preterm birth-related
- Birth defect-related
- Sleep-related

[Graph showing trends in infant deaths from 2011 to 2021]
A Few Final Thoughts

- This is not easy work (IM is a wicked problem)
- Focus
- Persistence
- Systems thinking
- Equity
- RACISM
Strategy 4

Equity
It is racism. Not race.
Equity Strategy

Use your data to understand what race or ethnicity is most affected

Listen. Engage. Include
• In the community
• In the organization

Build what you see & hear for interventions and for system level change
How we get it done? Centering on Black women, listening and providing community.
Equity Outcomes

- A badging system to provide mothers with a way to follow the equity in progress at all hospital systems in Hamilton County
  - Infant care
  - Mother care
  - Staff care
  - Community care
Shared power changes outcomes.
A collective approach to ending infant mortality

Cradle Cincinnati is a network of community members and organizations working across sectors to measurably improve Hamilton County, OH's infant mortality rate and eliminate racial inequities in the health of moms and babies. We bring together services and systems to help moms and, in turn, save babies' lives. Rooted in the collective impact model, our health and civic partners include community maternity hospital systems, public health departments, social service agencies, and families. We believe there is power in working with many partners and aligning multiple efforts to a common goal: keeping every infant in Hamilton County alive.

Cradle Cincinnati Connections is an initiative that provides moms with the immediate help and support they need to care for themselves and their infants.

Cradle Cincinnati Connections comprises a professional group of community health workers, nutritionists, educators, and advisors helping women find and connect with neighborhood services before, during, and after pregnancy. The vital support they provide is as varied as each mom's needs and could include getting the new baby a crib, helping mom schedule and get to and from doctors' appointments, and securing housing.

Supporting Families

Amplifying Community Voices

Transforming Systems

The Cradle Cincinnati Learning Collaborative is a network of healthcare professionals representing hospitals, community health centers, home health agencies, and social support systems. Its goal is to transform perinatal care for women and their families through quality improvement practices.

The Cradle Cincinnati Policy Committee comprises community members and local leaders who identify and advocate for local and statewide policy changes that make pregnancy less stressful and healthy living easier.

Queens Village is a supportive community of powerful Black women who come together to relax, repower, and take care of themselves and each other. To talk, listen, connect, relieve stress, and process trauma—all of which lower preterm birth, which is a major risk factor for infant mortality.

Kings Stand is a Queens Village brotherhood where Black fathers can grow and support each other in our work toward equity for Black women. This community group holds space for conversation, for fathers to share an outlet from everyday struggles and connect with other fathers who can relate.
How we get it done: Centering on Black women, listening and providing community.
Brand Extension: Equity

QUEENS VILLAGE

BLACK WOMEN JOIN US

LOVE BLACK WOMEN

TRUST BLACK WOMEN

RESPECT TRUST CARE HONOR ADVOCATE FOR BLACK WOMEN
Developing Provider Pocket Cards

Safe Spaces For Black Women

With me and Queens Village on your side, we want to ensure that you have a safe, healthy pregnancy and birth with the support you deserve.

Queens Village provides safe spaces for Black women through:

• Monthly Village meetings
• Wellness Workshops: featuring yoga, mindfulness activities, healing circles, quit challenges, and more
• Neighborhood gatherings and community events
• Support for Dads
Mama Certified
Equity Centered Maternal Care
infant care
maternal care
staff care
community care

Mama Certified Key Areas
Mama Certified

• A certification system to provide mothers with a way to assess and compare maternal equity in local hospital networks

• Badging categories:
  infant care
  mother care
  staff care
  community care

• Levels of progress: starting with a commitment level then an ongoing scale of metrics achieved
Accomplishments

- HB 11 (expanded Group Prenatal Care)
- Medicaid Coverage for a year postpartum
- Pending Doula Legislation
- 8 weeks paid parental leave in Hamilton County (from 0 weeks)
- Tobacco 21 Legislation at City of Cincinnati
- Pregnant women as priority population at Cincinnati Metropolitan Housing Authority