Welcome to the webinar! We will begin soon.
Overview

• HPIO and Ohio University team
• Background and purpose
• Stakeholder engagement
Overview, cont.

- Timeline and deliverables
- Infant mortality disparities and trends
- Approach to social determinants of health and health equity
- Most-improved state research
- Literature review and environmental scan
Please type questions or comments in the question box
Amy Rohling McGee
President
arothingmcgee@hpio.net

Amy Bush Stevens
Vice President, Prevention and Public Health Policy
astevens@hpio.net

Reem Aly
Vice President, Healthcare System and Innovation Policy
raly@hpio.net
Hailey Akah
Manager, Health Policy and Education
hakah@hpio.net

Becky Carroll
Health Policy Analyst
bcarroll@hpio.net

Zach Reat
Health Policy Analyst
zreat@hpio.net

Nick Wiselogel
Vice President, Strategic Communications
nwiselogel@hpio.net
HPIO Interns

• Ravleen Kaur
• Fehintola Omoshebi
• Yibo Shao
Anirudh Ruhil
Associate Professor

Francesca Gordon
Applied Research Professor
Stakeholder engagement

Steering Committee
(~ 10 participants)

Social Determinants of Infant Mortality Advisory Group
(~100 participants)

Housing Subcommittee
(~ 12 participants)
Future meetings:
Advisory Group

- **Aug. 17, 1:00-3:00 pm:** In-person meeting in Columbus
- **Sept. 14, 2:00-3:30 pm:** Conference call
- **Oct. 17, 9:00 am-12:00 pm:** In-person meeting in Columbus
Future meetings: Housing Subcommittee

- **Aug. 23, 2:00-3:30 pm:** In-person meeting in Columbus
- **Sept. 21, 10:00-11:00 am:** Conference call
Future meetings: Steering Committee

• June 30, 10:30-11:30 am: Conference call
• Aug. 9, 9:00-10:00 am: Conference call
Social Determinants of Infant Mortality Advisory Group

After a competitive selection process, the Legislative Service Commission (LSC) contracted with the Health Policy Institute of Ohio to study the social determinants of health and infant mortality. As a part of this project, HPIO is convening an advisory group that will contribute content expertise, provide feedback on preliminary findings and make recommendations for policy changes to improve the social, economic and physical environments that impact maternal and infant health.

The requirement for LSC to contract with a nonprofit entity to study and make recommendations related to the social determinants of infant mortality was included in Senate Bill 332 (sponsored by Senators Jones and Tavares). SB 332 was enacted by the Ohio General Assembly in late 2016 and signed by Governor Kasich in early 2017.

HPIO will complete a report for this project by Dec. 1, 2017.

Click here to see advisory group members

Advisory group meetings

All meeting material will be posted as it becomes available
Questions about meeting logistics?

Hailey Akah
Phone: 614.545.0752
E-mail: hakah@healthpolicyohio.org
Senate Bill 332

OHIO COMMISSION ON INFANT MORTALITY

Committee Report, Recommendations, and Data Inventory
March 2016

hpio
health policy institute of ohio

LEGISLATIVE SERVICE COMMISSION
OHIO
SB 332 requirements

1. Review of policies and programs: housing, transportation, education, employment
2. Identify opportunities to improve policies and programs
3. Study impact of state-funded rental assistance program
4. Evaluate best practices from other states
Stakeholder engagement

Steering Committee
(~ 10 participants)

Social Determinants of Infant Mortality Advisory Group
(~ 100 participants)

Housing Subcommittee
(~ 12 participants)
<table>
<thead>
<tr>
<th>Advisory Group: Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>As of 6/22/17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocacy</td>
<td>23</td>
</tr>
<tr>
<td>Local health department</td>
<td>19</td>
</tr>
<tr>
<td>State agency</td>
<td>16</td>
</tr>
<tr>
<td>Housing</td>
<td>17</td>
</tr>
<tr>
<td>Provider/clinician</td>
<td>14</td>
</tr>
<tr>
<td>Hospital/health system</td>
<td>14</td>
</tr>
<tr>
<td>Researcher/academic</td>
<td>12</td>
</tr>
<tr>
<td>Social service provider</td>
<td>10</td>
</tr>
<tr>
<td>Community/economic development</td>
<td>12</td>
</tr>
<tr>
<td>Health plan/private insurer/managed care</td>
<td>6</td>
</tr>
<tr>
<td>Grassroots/consumer group</td>
<td>5</td>
</tr>
<tr>
<td>Transportation/regional planning</td>
<td>5</td>
</tr>
<tr>
<td>Education/job training</td>
<td>4</td>
</tr>
<tr>
<td>Child care</td>
<td>4</td>
</tr>
<tr>
<td>Employment services/income</td>
<td>2</td>
</tr>
<tr>
<td>Business</td>
<td>2</td>
</tr>
</tbody>
</table>
Advisory Group: Sectors
As of 6/22/17

- Advocacy (23)
- Local health department (19)
- State agency (16)
- Housing (17)
- Provider/clinician (14)
- Hospital/health system (14)
- Researcher/academic (12)
- Social service provider (10)
- Community/economic development (12)
- Health plan/private insurer/managed care (6)
- Grassroots/consumer group (5)
- Transportation/regional planning (5)
- Education/job training (4)
- Child care (4)
- Employment services/income (2)
- Business (2)
Advisory Group: Involvement with infant mortality initiatives As of 6/22/17

- Local infant mortality collaborative/coalition: 55
- Ohio Collaborative to Prevention Infant Mortality (OCPIM): 46
- Ohio Equity Institute: 36
- Pathways Community HUB: 29
- Ohio Infant Mortality Reduction Initiative (OIMRI): 13
- The Collaborative Improvement and Innovation Network (COILN) to Reduce Infant Mortality: 13
# Timeline and Deliverables

<table>
<thead>
<tr>
<th>Deliverable/activity</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruit and convene stakeholder groups</td>
<td></td>
<td></td>
<td></td>
<td>6/28 AG meeting</td>
<td>8/17 AG meeting</td>
<td>9/14 AG meeting</td>
<td>10/17 AG meeting</td>
<td></td>
</tr>
<tr>
<td>Most improved state research and Dashboard analysis</td>
<td></td>
<td></td>
<td></td>
<td>8/23 HS meeting</td>
<td>9/21 HS meeting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literature review and environmental scan: Housing, transport, employment, education — including focus on rental assistance program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory of evidence-informed SDOH strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development and prioritization of recommendations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Draft</td>
<td>Final report due Dec. 1</td>
</tr>
</tbody>
</table>

AG = Advisory Group  
HS = Housing Subcommittee
Sources of information

Most improved state research
- State-level trend data analysis to identify most-improved states, including most improved for black infant mortality
- Literature review, document review and key-informant interviews to identify how other states improved

Health Value Dashboard data
- Analysis to identify strongest drivers of infant mortality from social, economic and physical environment

Literature review and environmental scan
- Summarize research literature
- Focus on housing, transportation, employment, education
- Describe existing programs and policies in Ohio

Inventory of evidence-informed SDOH strategies
- Systematic reviews, evidence registries and expert consensus reports
- Examples from other states
Why is this important?

- Infant mortality disparities and trends
- Social determinants of health
- Health equity
Ohio infant mortality rate per 1,000 live births, by race/ethnicity, 2012-2014 (pooled)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Rate per 1,000 Live Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic black</td>
<td>13</td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>6</td>
</tr>
<tr>
<td>Hispanic (any race)</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Ohio (all): 7.22

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER
States with highest Non-Hispanic black infant mortality rate, 2012-2014 (pooled)

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER
Change in infant mortality rate, 2005-2007 to 2012-2014, by state

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER
Change in Non-Hispanic Black infant mortality rate, 2005-2007 to 2012-2014, by state

Source:
Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER

Copyright © 2017 Health Policy Institute of Ohio. All rights reserved.
Trends in Ohio infant mortality rates, by race (1990-2015)


"Model-Fitted" Definition – Joinpoint software models were used to test the statistical significance of changes in trends using a Monte Carlo permutation method. The same methods were used to assess All Races, Black and White infant mortality trends. In all cases, the best fitting line for the observed data is presented.
Change in Black-White disparity odds ratio for infant mortality, 2005-2007 to 2012-2014, by state

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER

Most improved
Factors that impact health
With Ohio’s 2017 HPIO Health Value Dashboard rank

- Social and economic environment: 29
- Access to care: 17
- Healthcare system: 37
- Clinical care: 20%
- Health behaviors: 30%
- Physical environment: 10%
- Public health and prevention: 50%

Copyright © 2017 Health Policy Institute of Ohio. All rights reserved.
Systems and environments that affect infant mortality

- Healthcare system
- Access
- Social and economic environment
- Public health and prevention
- Physical environment

Leading causes of infant mortality
- Premature birth
- Low birth weight
- Birth defects
- Sudden unexplained infant death (including Sudden Infant Death Syndrome and sleep-related deaths)
- Accidents and injuries (including abusive head trauma)
- Maternal complications of pregnancy

Goals
- Reduce infant mortality
- Reduce and eliminate disparities and achieve equity
Systems and environments that affect infant mortality

Healthcare system
Access
Social and economic environment

Public health and prevention

Physical environment

Pre-conception
Pregnancy
Child/adult
Infancy

Leading causes of infant mortality
- Preterm birth
- Low birth weight
- Birth defects
- Sudden unexplained infant death (including Sudden Infant Death Syndrome and sleep-related deaths)
- Accidents and injuries (including abusive head trauma)
- Maternal complications of pregnancy

Infant mortality
- Neonatal mortality
- Postneonatal mortality

Goals
- Reduce infant mortality
- Reduce and eliminate disparities and achieve equity
Social ecological model
Risk factors for infant mortality

- Innate individual traits: age, race and biological factors
- Social, family and community networks
- Living, learning and working conditions and policies
- Broad social, economic, cultural, health, environmental conditions

Risk factor examples:
- African American
- Maternal smoking
- Domestic violence and toxic stress
- Lack of affordable, quality housing and transportation
- Unemployment, low-wage jobs, low-performing schools, structural racism and poverty
“Health is about more than health care, and the same is true for health equity.”

- Steven H. Woolf
Health Affairs, June 2017
Health inequities, disparities and equity

Health inequities
Disparities in rates due to differences in the distribution of social, economic, environmental or healthcare resources*

Health disparities
differences in health status among segments of the population such as by race or ethnicity, education, income or disability status

Health equity

*Working definition from the CDC Health Equity Working Group, October 2007
Ohio children living in poverty, by race and ethnicity

- Black: 45.9%
- Hispanic: 33.4%
- White: 14.5%
- Asian-American: 10.9%

Estimated impact of eliminating disparity:
More than 130,000 black children in Ohio would not be living in poverty if the racial disparity was eliminated.

Source: National Survey of Children’s Health and 2017 Health Value Dashboard analysis
High school graduation, by race/ethnicity, 2015

Percent of high school students who did not graduate within 4 years

- White: 14%
- Black: 40%
- Hispanic: 30%
- Asian American: 14%

Source: Institute of Education, Sciences, National Center for Education Statistics
Neighborhood safety, by income level, 2011-2012
Percent of parents who report their children are living in an unsafe neighborhood

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%-99% FPL</td>
<td>25%</td>
</tr>
<tr>
<td>100%-199% FPL</td>
<td>16%</td>
</tr>
<tr>
<td>200%-399% FPL</td>
<td>6%</td>
</tr>
<tr>
<td>400%+ FPL</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: National Survey of Children’s Health
Residential segregation
Black/white dissimilarity index, 2010-2014

*Cincinnati dissimilarity index is calculated from Ohio census tracts only.
Source: American Community Survey, 5-Year Census Tract Estimates. Calculations by the Kirwan Institute for the Study of Race and Ethnicity
Equal opportunity?

Social, economic and physical environment

Adapted from Saskatoon Health Region's Public Health Observatory
Equal opportunity

Social, economic and physical environment

Adapted from Saskatoon Health Region's Public Health Observatory
### Sources of Information

**Most improved state research**
- State-level trend data analysis to identify most-improved states, including most improved for black infant mortality
- Literature review, document review and key-informant interviews to identify how other states improved

**Literature review and environmental scan**
- Summarize research literature
- Focus on housing, transportation, employment, education
- Describe existing programs and policies in Ohio

**Health Value Dashboard data**
- Analysis to identify strongest drivers of infant mortality from social, economic and physical environment

**Inventory of evidence-informed SDOH strategies**
- Systematic reviews, evidence registries and expert consensus reports
- Examples from other states
Most-improved states research

- 8 states
- Literature review
- Document review
- Key-informant interviews
- Lessons learned and potential opportunities for Ohio
Selection criteria

1. States with data available for Black infant mortality (34 states including DC)

And at least one of the following:
Most improvement from 2005-07 to 2012-2014 (top 10)....

2. Overall infant mortality rate reduction
Statistically significant

3. Non-Hispanic Black infant mortality rate reduction
Statistically significant

4. Black-White disparity reduction
Among states with significant reductions for all groups
Selection criteria

Available data

Biggest improvements in IM, Black IM, disparity

Indication of SDOH policies or programs

8 states for in-depth study
Most improved states*: Change in infant mortality rate 2005-2007 to 2012-2014, all races

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER

*Ten states with greatest statistically significant reduction, excluding states with data limitations (HI, NE, ID)
Most improved states*: Change in infant mortality rate 2005-2007 to 2012-2014, non-Hispanic Black

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER

*Ten states with greatest statistically significant reduction

Copyright © 2017 Health Policy Institute of Ohio. All rights reserved.
Most improved states*: Change in black-white disparity odds ratio for infant mortality, 2005-2007 to 2012-2014

*Ten states with greatest reduction (decreased odds ratio indicating Black-White gap), excluding states that did not have significant reductions in the Black and White infant mortality rate

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER

Updated 7.10.17
19 states for consideration
(top 10 for at least one criteria)

Source: Preliminary analysis of Linked Birth/Infant Death Records 2005-2014 via CDC WONDER
Updated 7.10.17
Type feedback in the chatbox

- Contacts in any of these states
- Information about social determinants of health-related policies or programs implemented in these states

or email astevens@hpio.net
Literature review and environmental scan

SDOH and IM
Health inequities and IM
Housing
Transportation
Education
Employment
For each topic:

1. How does this affect infant mortality?
2. Scope of problem in Ohio
3. Policy landscape
Example: Housing infrastructure challenges and inequities

**Affordability**
- Lack of income for necessities
- Discrimination and predatory rental practices

**Neighborhood conditions**
- Low opportunity (education, jobs, etc.)
- High crime and violence
- Discrimination and residential segregation

**Stability**
- Difficulty maintaining housing
- Informal rental agreements
- Staying in abusive/violent living situations
- Homelessness

**Quality**
- Poor house maintenance or construction
- Overcrowding

Identified in report prepared by HPIO for the Ohio Commission on Minority Health, 2017
Your input

- Contacts knowledgeable about the Ohio policy landscape for housing, transportation, education, employment
- Articles or reports we should be aware of for the literature review

Type feedback in the chatbox

or email zreat@hpio.net
Questions
& Ideas
Contact

Amy Bush Stevens
Health Policy Institute of Ohio
astevens@healthpolicyohio.org