



Healthy Moms and Babies: Housing and Health Integration

RESEARCH FINDINGS & RECOMMENDATIONS FOR POLICY MAKERS

Healthy Beginnings At Home

Maureen Stapleton

Executive Director, CelebrateOne



Presentation

- Overview
- Design: Research and Intervention
- Findings: Housing and Health Outcomes
- Implications: Research, Policy & Practice
- Closing



CelebrateOne

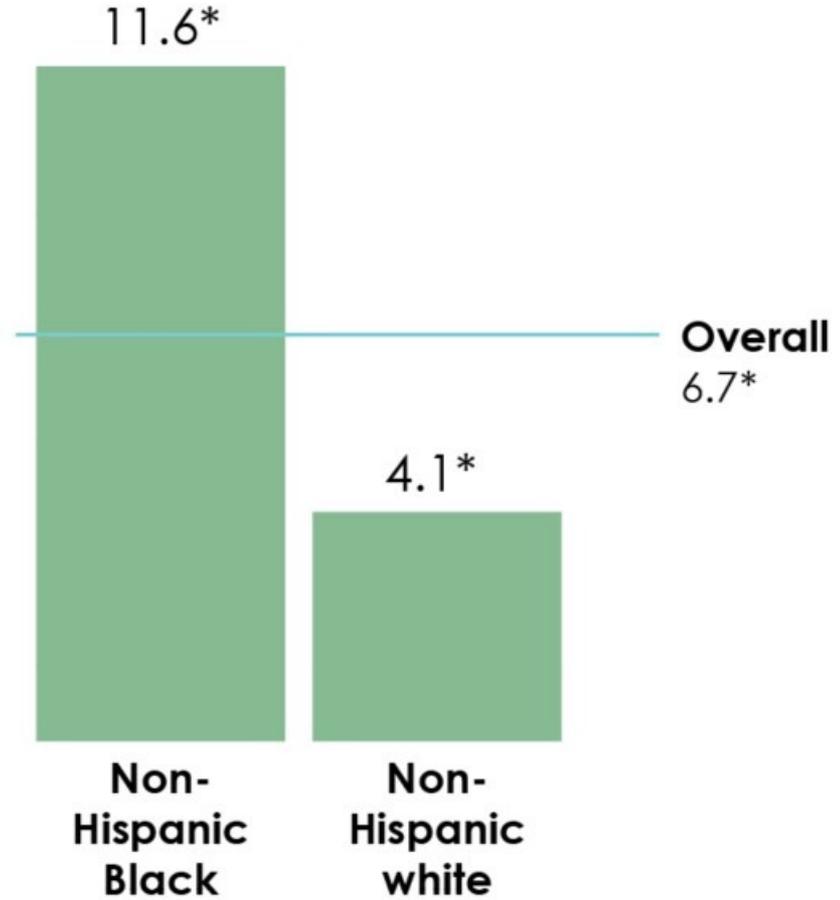
- CelebrateOne is a community-wide, collective impact initiative with the mission of improving Columbus' unacceptably high infant mortality rate.
- Recognizing housing as an important social determinant of health, CelebrateOne convened partners to establish the **Healthy Beginnings at Home** pilot in 2018.



Racial
Disparities
underly infant
mortality,
housing
instability, and
homelessness

Figure ES 1. **Franklin County infant mortality rate, by race, 2020**

Number of deaths of infants under age 1, per 1,000 live births



* based on preliminary 2020 data
Source: Columbus Public Health

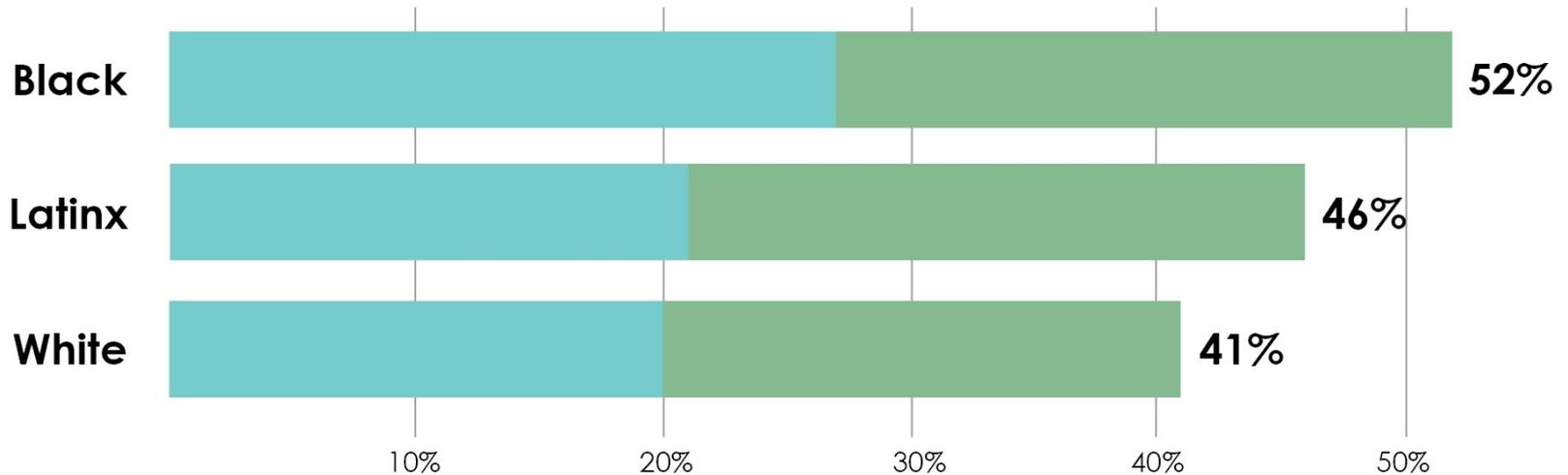


Racial Disparities underly infant mortality, housing instability, and homelessness

Figure ES 9. **Housing cost burden by race/ethnicity and severity, Columbus region, 2017**

Percent of renter-occupied households that are:

- Severely burdened (spending over 50% on housing)
- Burdened (spending over 30% on housing)



Source: "Housing Burden. Columbus, OH." National Equity Atlas. Accessed Aug. 18, 2020. https://nationalequityatlas.org/indicators/Housing_burden#/?breakdown=2

Racial Disparities underly infant mortality, housing instability, and homelessness

Black Ohioans are only

13%

of the state's residents,
but make up nearly

50%

of its homeless
population.

COVID-19 has exposed underlying racial disparities in health and housing. With new federal resources available for rental assistance, the opportunity to target some of the resources to pregnant women could have profound impact on the health and well-being of infants. HBAH provides a framework for communities to use to achieve better birth outcomes.

Infants were the most common age accessing the homelessness assistance system in Ohio and the number of infants grew to

2,943 in 2017

A 53.0% INCREASE SINCE 2012

Healthy Beginnings at Home

What is Healthy Beginnings at Home?

HBAH is a community initiative striving to **reduce infant mortality** through an **affordable housing intervention**.

The program seeks to strengthen the evidence regarding the impact of increasing housing stability in addressing infant mortality, reducing adverse birth outcomes, and improving health outcomes for women and their infants, with a strong focus on reducing racial disparities.



Key Partners & Principal Investigators

“ I never got this much support and help [before]. Having your first baby, you don't know what to expect ... They were there to support me and asked me about my baby, asked me if I needed transportation and all that stuff.”

~ HBAH participant

- Maureen Stapleton, CelebrateOne
- Kelly Kelleher, Nationwide Children's Hospital
- Beth Fetzer-Rice, Homeless Families Foundation
- Amy Stevens, Health Policy Institute of Ohio
- Amy Riegel, CareSource
- Megan Sandel, Children's HealthWatch
- Barbara Poppe, Barbara Poppe & Associates
- Charles Hillman, Columbus Metropolitan Housing Authority



Design: Research

Amy Stevens

Vice President of Policy, Health Policy Institute of Ohio

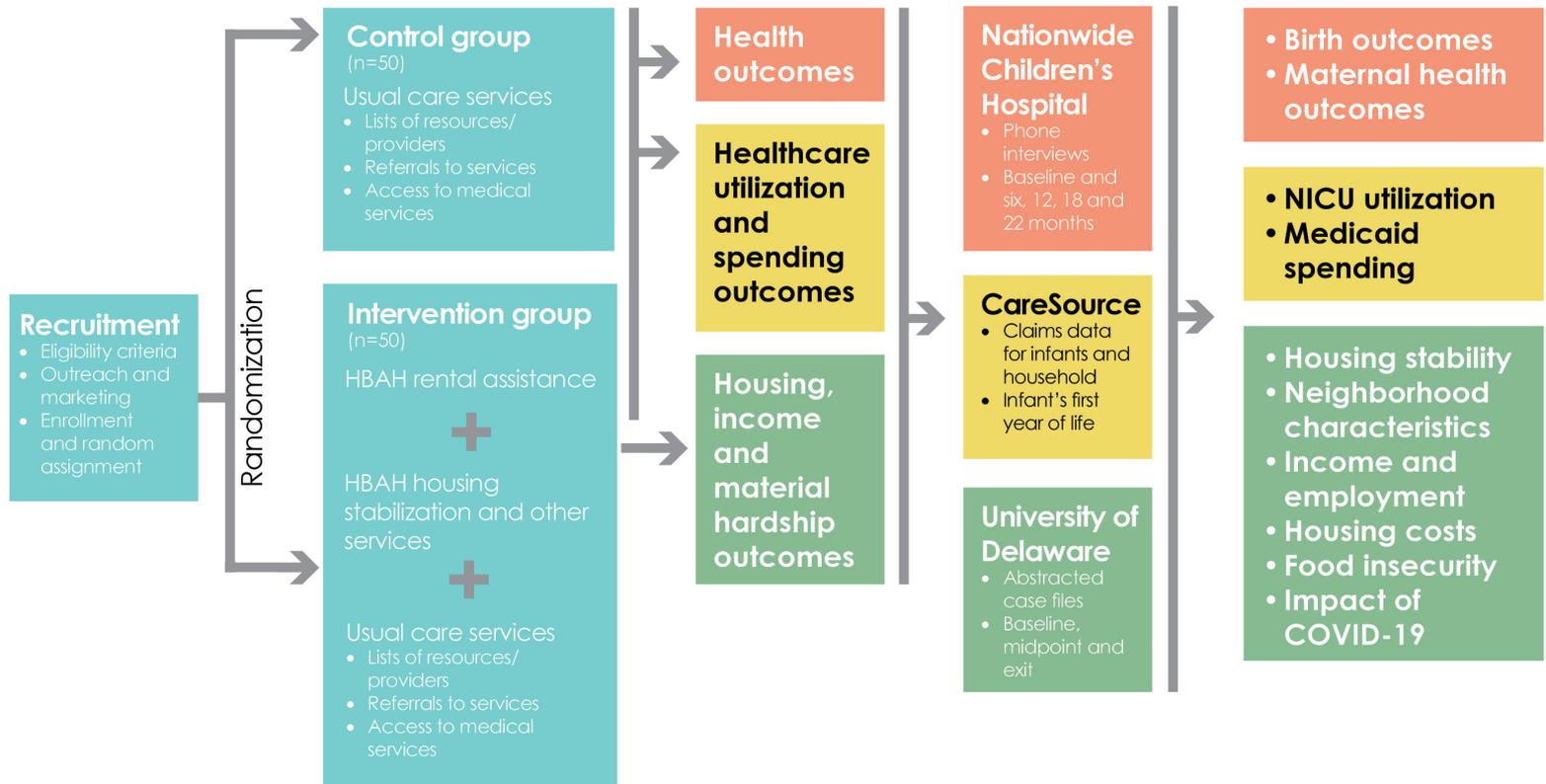


Research Objective

Can provision of safe, affordable housing during pregnancy improve health outcomes - birth, maternal and infant – and reduce infant mortality?



Research design



Health Research Overview

Nationwide Children's Hospital

- Surveys conducted at baseline, 6 months, 12 months, 18 months and 22 months after enrollment
- Indicators include:
 - Birth outcomes
 - Housing stability
 - Maternal mental health
 - Health related social needs
 - Healthcare utilization through CareSource claims data



Housing Research Overview

Stephen Metraux, PhD

Director, Center for Community Research & Service; Associate Professor Biden School of Public Policy & Administration, University of Delaware

Housing, economic and related outcomes for intervention households before, during, and at the end of their HBAH participation



Healthy Beginnings at Home

Process evaluation



Design: Intervention

Beth Fetzer-Rice

Executive Director, Homeless Families Foundation



HBAH Target Population

- **Requirements**

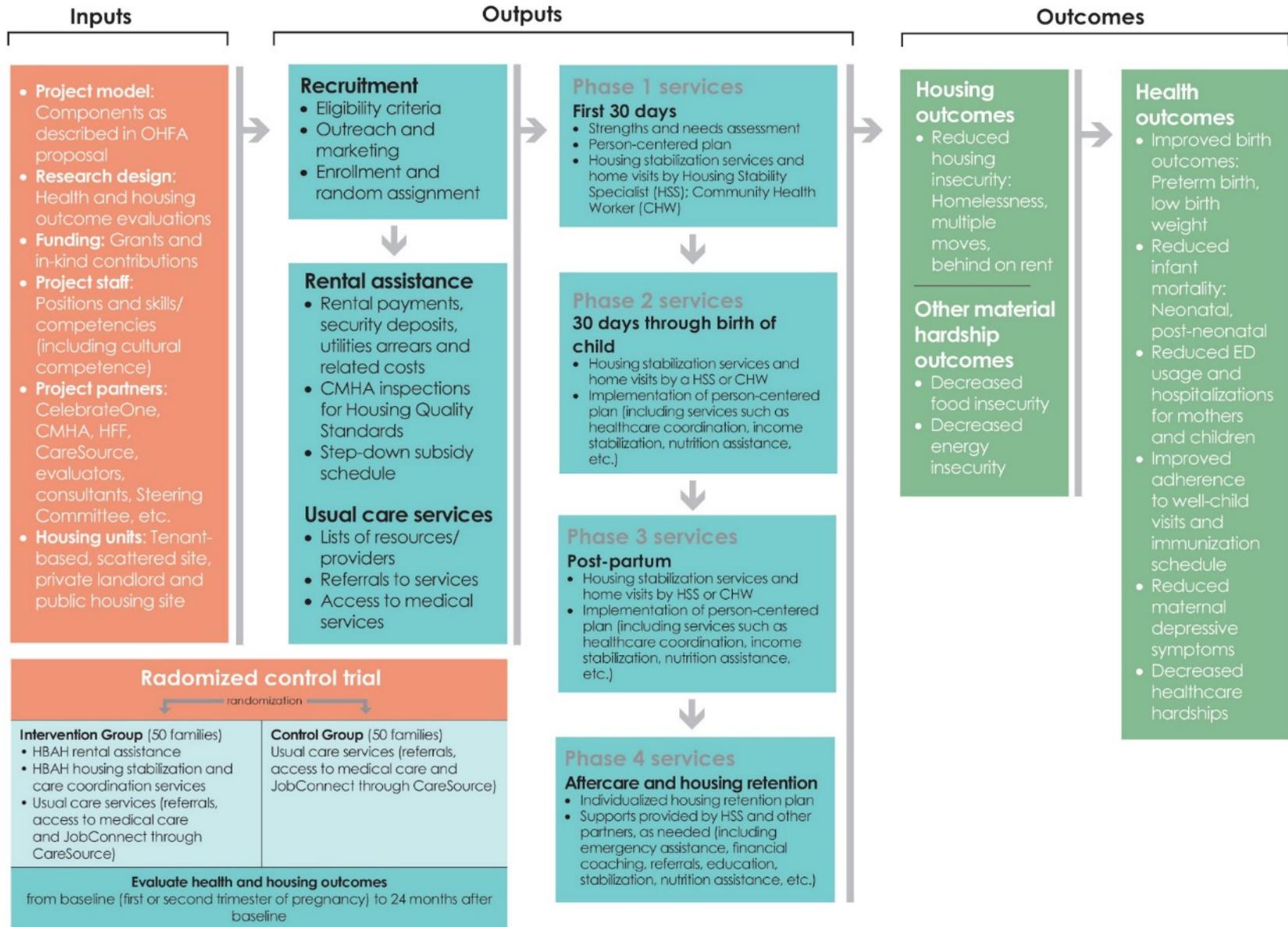
- pregnant adult in their first or second trimester,
- living in Franklin County,
- household income <30% AMI,
- enrolled in CareSource, and
- experiencing housing instability or homelessness

HOUSING IS UNSTABLE WHEN A FAMILY EXPERIENCES ANY OF THESE SITUATIONS:

- multiple moves
- eviction or risk of eviction
- overcrowded or doubled up
- a severe housing problem
- homeless living in a shelter or place not meant for human habitation.



HBAH Intervention



HBAH Intervention

Rental Assistance + Housing Stabilization Services

Rental Assistance

- 15-months of rental subsidy covering the gap between full market rent and 30% of the participants' income
- Followed by 6-month stepdown period in which the subsidy decreased gradually until the participant pays full rent.
- Some participants found housing in units that included a full rent subsidy on an ongoing basis rather than the time limited subsidy provided by HBAH



HBAH Intervention

Rental Assistance + Housing Stabilization Services

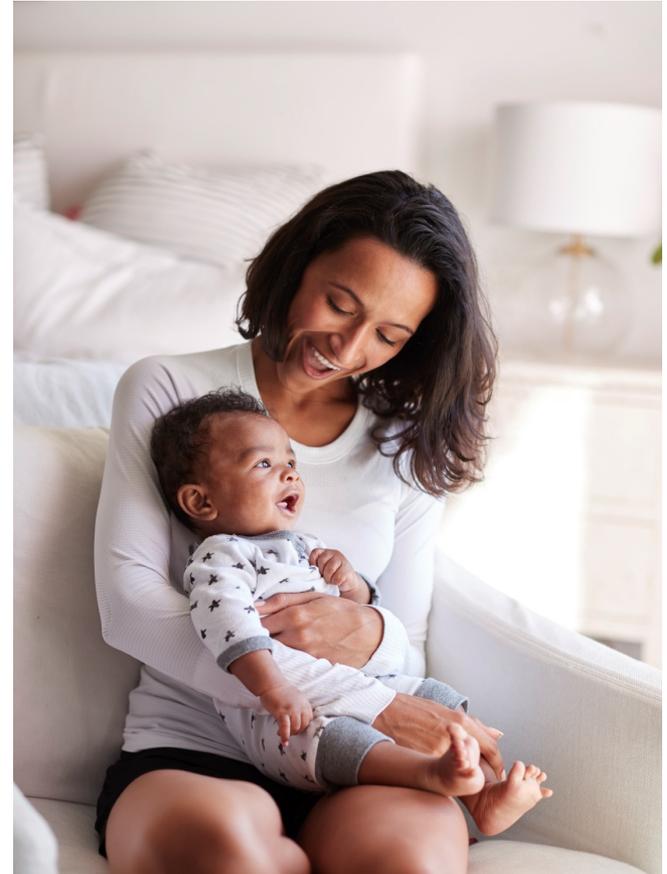
Housing stabilization services helped participants identify housing, negotiate with landlords, and remain securely housed when faced with challenges.

- Family Critical Time Intervention (CTI)
- Housing First approach
- Clinical best practices: person-centered planning, motivational interviewing, and trauma-informed care
- Other usual care support services included access to a CelebrateOne CHW, a CareSource Care Manager, and a JobConnect Life Coach



Usual Care

- Participants randomized to the usual care group did not receive a rental subsidy from the HBAH program, but remained eligible for housing assistance from other sources
- All community-based services for which they were eligible, including support from CareSource and CelebrateOne, remained available to these participants



Findings: Housing

Amy Riegel

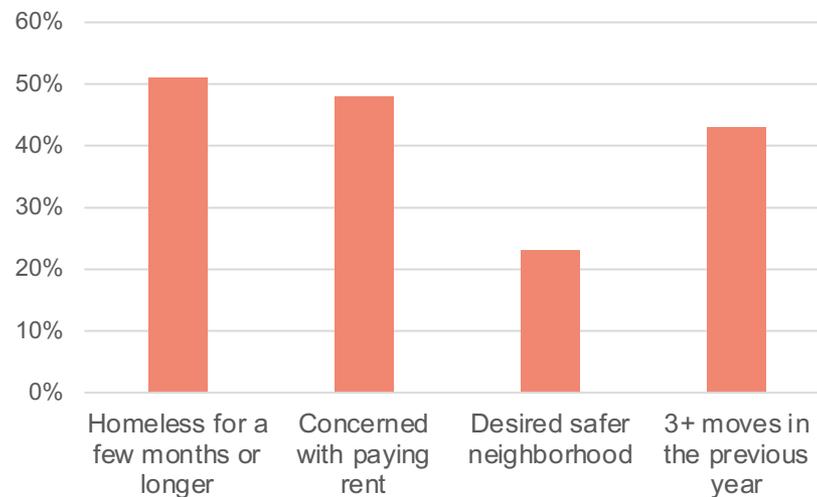
Senior Director of Housing, CareSource



Demographics

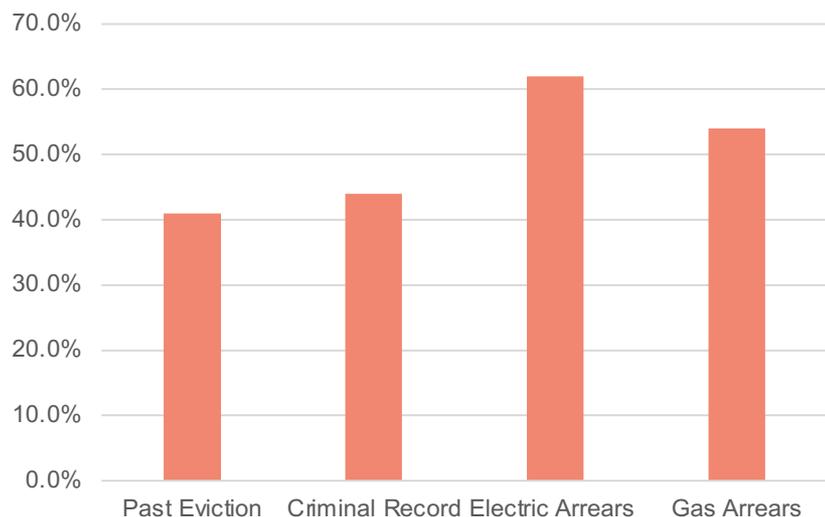
Participants	
Race/Ethnicity	
<i>Non-Hispanic Black</i>	81%
<i>Non-Hispanic White</i>	10%
<i>Hispanic Black or Multiracial</i>	9%
Average Age	25.5
Prior Pregnancy	81%

Past Housing Experiences



Barriers to Finding Housing

Barriers to Finding Housing



Financial Barriers to Stable Housing

Income Per Month

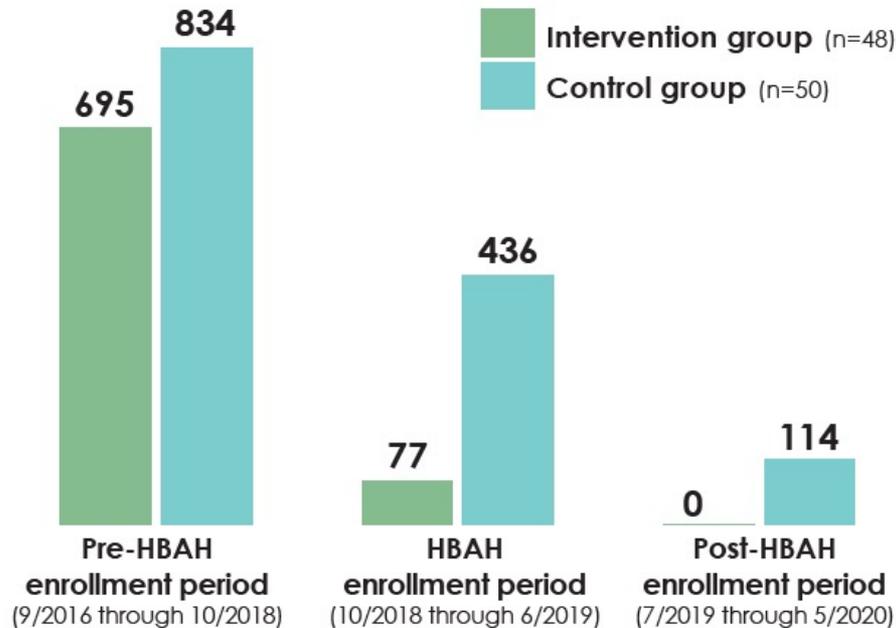
Zero	46%
\$1 to \$500	9%
\$501 to \$1,000	18%
Above \$1,000	27%

Credit Score

Above 580 ("low" or "average")	8%
Below 580 ("bad" or "poor")	38%
No Score (insufficient information)	54%

Housing Outcomes

Figure ES 3. Homeless shelter use by HBAH intervention and control group households: Total household-days in shelter



Source: Homeless Management Information System, collected by Columbus Community Shelter Board, analysis by University of Delaware

Family Outcomes



“The fact that my son has his own room right now – that is something that is super sweet ... I get to put him in a situation of living where he can be comfortable, be a baby, be himself, learn and grow and be inquisitive and play. You can’t have that if you aren’t living in a stable home.”

- HBAH participant

Findings: Health

Leslie Jones

Research Assistant, Nationwide Children's Hospital



Health Research Findings

- Findings show differences between the birth outcomes for the intervention group and the usual care group
 - *Due to small "n", results are not statistically significant*
- Babies in the housing intervention group were **less likely to be admitted to Neonatal Intensive Care Unit (NICU)** and stayed just **8 days on average rather than 29 days** for usual care NICU admissions

BIRTH OUTCOMES

Four fetal deaths in the usual care group, and **NONE!** in the housing intervention group.

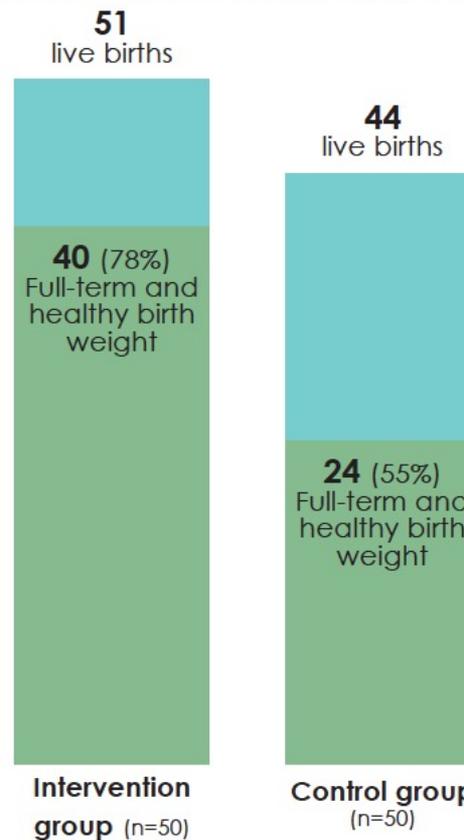
40 of 51 babies in the intervention group were born full-term and at a healthy birth weight in comparison to **24 of 44 babies** in the usual care group.

Babies in the housing intervention group were less likely to be admitted to NICU and stayed just **8 days rather than 29 days** for usual care NICU admissions.

Birth Outcomes



Figure ES 2. **Birth outcomes for HBAH intervention and control group participants**



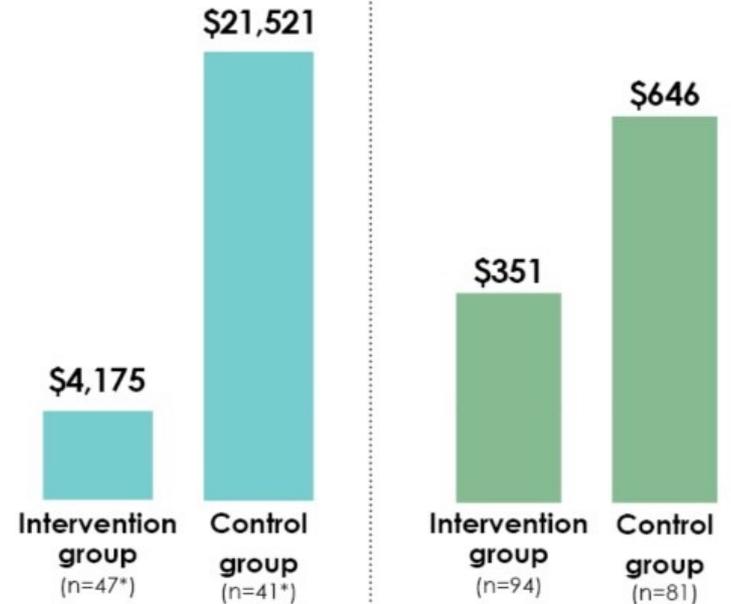
Source: Nationwide Children's Hospital, CareSource data and self-reported data

Healthcare Savings

Figure ES 2. **Medicaid spending for HBAH intervention and control group participants**

Average paid per claim:
Infant only at time of birth
until initial release

Total Medicaid spending
per member, per month
(PMPM) without outliers:
All household claims
(from date of infant's birth
to first birthday)



* N is based on live births. Does not include fetal deaths.

Source: CareSource

Implications: Research

Megan Sandel, MD, MPH

Co-Lead Principal Investigator, Children's HealthWatch



Timing and Duration of Homelessness matters, Both Prenatally and in Early life, on Child Health

Homelessness During Pregnancy: A Unique, Time-Dependent Risk Factor of Birth Outcomes

MATERNAL
AND
CHILD
HEALTH
JOURNAL

**Homelessness During Infancy:
Associations With Infant
and Maternal Health
and Hardship Outcomes**

Cityscape

Timing and Duration of Pre- and Postnatal Homelessness and the Health of Young Children

PEDIATRICS®
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Compounding Stress

The Timing and Duration Effects of Homelessness on Children's Health

By Megan Sandel, MD MPH, Richard Sheward, MPP, and Lisa Sturtevant, PhD
June 2015

Decades of scientific research has demonstrated that homelessness experienced during early childhood is harmful to a child's growth and development.¹ The stress of homelessness during early childhood can lead to potentially permanent harmful changes in brain and body function, in turn causing higher levels of stress-related chronic diseases later in life.² In addition, a growing body of evidence has established that a child's health and development are critically dependent on his mother's mental and physical well-being during pregnancy.³



New research from Children's HealthWatch illustrates there is no safe level of homelessness. The timing (pre-natal, post-natal) and duration of homelessness (more or less than six months) compounds the risk of harmful child health outcomes. **The younger and longer a child experiences homelessness, the greater the cumulative toll of negative health outcomes, which can have lifelong effects on the child, the family, and the community.**

The Children's HealthWatch Research Network

Researchers from Children's HealthWatch collected data from over 20,000 caregivers of low-income children under the age of four with public or no health insurance. These caregivers were interviewed in urban pediatric clinics and emergency departments in five U.S. cities from 2009 through 2014. Interview data were analyzed to assess children's health and development and to compare outcomes for children who experienced homelessness at some point in their lives with children who were never homeless.

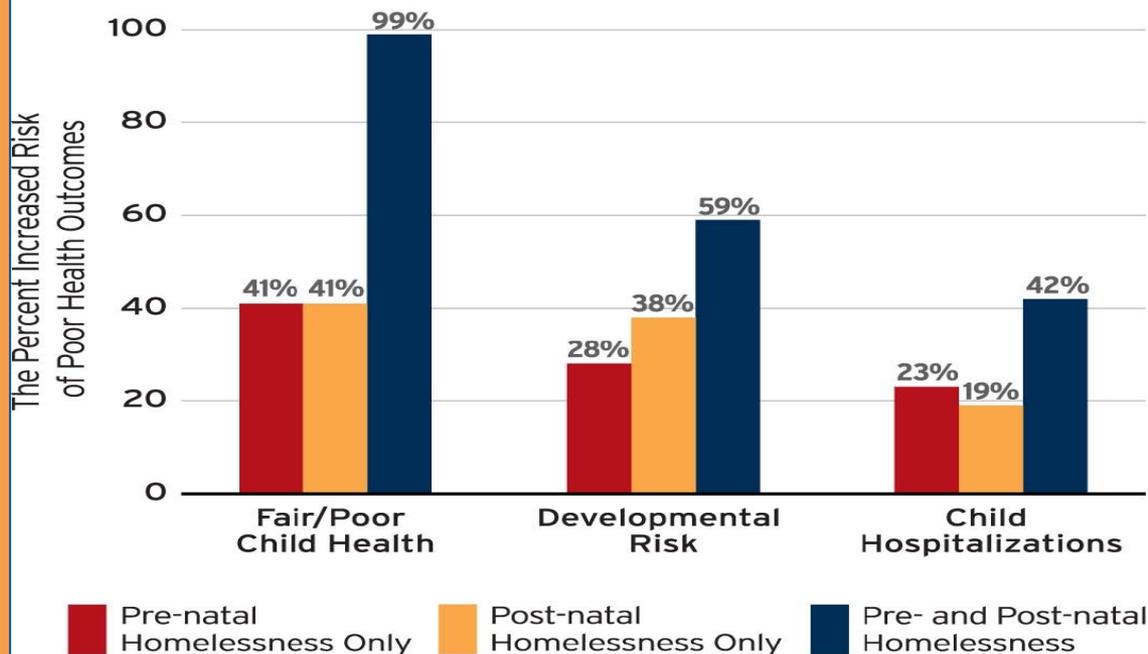
New Research Findings

While pre-natal and post-natal child homelessness were each separately associated with poor health outcomes for children, the combination of pre-natal and post-natal homelessness resulted in a so-called "dose-response" effect that compounded the health risks linked to both pre-natal and post-natal homelessness. In addition, longer periods of homelessness among children generally were associated with worse health outcomes.

THE CENTER FOR HOUSING POLICY IS THE RESEARCH DIVISION OF THE



FIGURE 1
Compounding Effect of Homelessness on Child Health



The comparison group for these data is children who were never homeless. All findings statistically significant at $p < .05$.

Source: Children's HealthWatch Data, May 2009-December 2014.

By Allison Bovell-Ammon, Cristina Mansilla, Ana Poblacion, Lindsey Rateau, Timothy Heeren, John T. Cook, Tina Zhang, Stephanie Ettinger de Cuba, and Megan T. Sandel

Housing Intervention For Medically Complex Families Associated With Improved Family Health: Pilot Randomized Trial

Difference-in-differences in changes from baseline to 6 months between intervention and control groups, among participants in Housing Prescriptions as Health Care in Boston, Massachusetts

	Difference	95% CI
Behind on rent in past year	19 ^a	(-2, 40)
Two or more moves in past year	-9 ^a	(-11, 28)
Homeless in past 6 months	15 ^a	(-11, 40)
Child in fair or poor health	-32 ^{***}	(-59, -06)
In past 6 months, mean no. of child:		
Urgent care visits	-0.51	(-1.54, 0.51)
ED visits	-0.41	(-1.66, 0.83)
Hospitalizations	0.05	(-0.38, 0.49)
Mean GAD-2 score	-1.38 ^{**}	(-2.46, -0.31)
Mean PHQ-2 score	-1.04 ^{**}	(-1.95, -0.13)

Analysis demonstrated **significantly greater improvements in child health status and parent anxiety and depression scores** among those in the intervention group, compared to the control group.

Recommendation: Research Replication

Test the HBAH model in other communities and at a greater scale to better understand impacts on maternal, birth, and child health outcomes and potential cost benefits related to investment in the HBAH model.

- Preliminary evidence from the HBAH program suggests rental assistance and housing stabilization services may help pregnant housing-instable women achieve better birth outcomes
- The HBAH model could be **scaled and rigorously evaluated** in Columbus **as well as other communities** that experience high rates of infant mortality
- This work could ultimately lead to a **large, nationally funded, multi-site study**



Implications: Policy & Practice

Barb Poppe

Principal, Barbara Poppe and Associates



Recommendation: Policy & Practice Enhancements

Promote housing stability for pregnant women with extremely low incomes who experience homelessness or housing insecurity. Use an equity lens to better understand and reverse health disparities associated with race and ethnicity.

- Provide **rental and utility assistance** to bridge the gap between household income and housing costs for pregnant women with extremely low incomes
- Provide **housing stability services** that support the household and enable better relationships with landlords.
- **Increase availability of safe, quality rental housing** for households with extremely low incomes and reduce admission barriers.



Local Replication

- **Pregnancy Care Initiative**
 - Building system to prevent homelessness for pregnant women
 - New Housing for Pregnant Women using CRV/ARP funding
- **Ohio Learning Community**
 - Sharing HBAH lessons with 4 urban communities with high rates of infant mortality
- **State of Ohio investment**
 - \$2.25 in biennial budget (FY2022) for HBAH replication



Implications: federal policy

- HHS
 - CMS Informational bulletin
 - HRSA – MCHV & FQHCs
 - ASPE report
- HUD
 - HCV, including special purpose vouchers
 - CoC guidance



Closing

Thank you!

For more information:

<http://www.poppeassociates.com/hbah>



“Before Healthy Beginnings at Home, I was sleeping on the floor at my boyfriend’s mom’s house – pregnant. Nobody wants to do that. It’s not easy to do that. Now, not only do I have a stable place to grow my family, but I have a place for myself.”
-HBAH participant



Healthy Beginnings at Home Collaborative



Other partners:

- StepOne for a Healthy Pregnancy, Physicians Care Connection
- Barb Poppe
- Jacob Bowling
- Craig Thiele
- University of Delaware
- Community Shelter Board
- Health Policy Institute of Ohio

