What is Healthy Beginnings at Home?

- Healthy Beginnings at Home (HBAH) is a research project to test the impact of providing rental assistance with housing stabilization services to unstably housed pregnant women at risk of infant mortality.
- Responding to large racial disparities in infant mortality (see figure ES 1), HBAH addresses inequities in affordable housing access that contribute to high rates of homelessness, housing instability and poor health outcomes for families of color.
- CelebrateOne, an infant mortality prevention collaborative in Columbus, Ohio, led the initial HBAH research project from 2018 to early 2021, enrolling 100 families in the random assignment study with 49 families receiving the housing intervention.
- The study was funded by Ohio Housing Finance Agency (OHFA) and several other public and private organizations.

How was HBAH evaluated?

A multi-disciplinary research team conducted a comprehensive evaluation of HBAH, including the following research teams and components:

- Nationwide Children’s Hospital: Randomized control trial with interviews and claims data analysis to assess health outcomes.
- CareSource (Medicaid managed care organization): Claims data analysis to assess healthcare utilization and spending.
- University of Delaware: Evaluation of housing and economic outcomes.
- Health Policy Institute of Ohio: Process evaluation.

Key findings

The following key findings summarize the most notable evaluation results and considerations for future efforts to improve maternal and infant health through housing interventions.

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

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

<table>
<thead>
<tr>
<th>Race</th>
<th>Infant Mortality Rate, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>6.7</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>11.6</td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>4.1</td>
</tr>
</tbody>
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* Preliminary data
Source: Columbus Public Health

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 from hospital

<table>
<thead>
<tr>
<th>Group</th>
<th>Average Paid per Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention group</td>
<td>$21,521</td>
</tr>
<tr>
<td>Control group</td>
<td>$351</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Group</th>
<th>Total Medicaid Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention group</td>
<td>$646</td>
</tr>
<tr>
<td>Control group</td>
<td>$4,175</td>
</tr>
</tbody>
</table>

* n is based on live births. Does not include fetal deaths.
Source: CareSource
HBAH contributed to large reductions in Medicaid spending, while impacts on health outcomes were more difficult to assess.

Medicaid spending. Analysis of Medicaid claims data within the randomized control trial design demonstrated that HBAH participants had far lower healthcare spending than the control group households, who did not receive rental assistance (see figure ES 2). For example, the average paid per claim for infants at the time of delivery was $4,175 for the intervention group compared to $21,521 for the control group, largely driven by lower neonatal intensive care unit utilization among HBAH infants.

Maternal and infant health. Forty of the 51 live births in the intervention group (78%) were infants born full-term at a healthy weight, compared to 24 of 44 in the control group (55%) (see figure ES 3). While these results were promising, they were not statistically significant due to the study size. A study with a larger number of participants is needed to better assess the effectiveness of the HBAH model in improving birth outcomes.

There were no notable differences in self-reported maternal health outcomes.

Figure ES 4. 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
HBAH improved housing stability

Housing status and shelter use. All HBAH participants lacked stable housing upon being accepted into HBAH, and all obtained affordable, safe apartments which eliminated housing insecurity for the course of their HBAH participation. Once housed, the majority of HBAH intervention group participants maintained their housing with limited documented difficulties. Intervention group participants were much less likely than control group participants to have spent time in a homeless shelter during or after enrollment in the project. For the intervention group, total household days in a shelter declined from 695 prior to HBAH enrollment (9/2016 to 9/2018), to 77 during enrollment to zero within the post-enrollment period; compared to 834, 436 and 114 days, respectively, for the control group (see figure ES 4).

Future housing stability. Over two-thirds of the HBAH households had reasonably good prospects for maintaining their housing as they exited the study. The housing evaluation determined that 35% of the HBAH households were “stably housed” and another 37% were “stably housed with some concerns” at exit.

Families with ongoing rental assistance (rather than time-limited assistance that ended at exit) faced a much lower threat of instability when they left the study.

Ongoing rental assistance and intensive housing stabilization services are critical for families at high risk for infant mortality

Rental assistance is a critical foundation. At baseline, mothers had many barriers to housing stability, such as having a bad, poor or no credit score (96%), a history of criminal justice involvement (48%), no income (46%) and electric bill arrears (60%) (see figure ES 6). The 21-24 months of rental assistance—as well as intensive help to find and maintain housing—provided a critical foundation for the women to care for their newborns and prepare for long-term stability.

Barriers point to depth of need. It took an average of 62 days to secure housing for families after enrollment, reflecting the extreme difficulty of finding affordable housing in Franklin County. Even with the extensive support provided through HBAH, 35% of

Figure ES 5. How much does a renter need to earn per hour to afford a 2-bedroom apartment in Franklin County, Ohio?

<table>
<thead>
<tr>
<th>Housing wage</th>
<th>Median hourly wages for types of jobs held by HBAH participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>$19.08</td>
<td>$9.72  $11.30  $12.77  $12.82  $13.88</td>
</tr>
</tbody>
</table>

The “housing wage” is defined as the hourly wage a full-time worker needs to earn to spend 30% or less of their income on housing. The housing wage for Ohio overall is $15.99.

intervention group families moved at least once during the study, and 45% had at least one lease violation. Domestic violence was a contributing factor in 41% of the moves.

Using Housing First and harm reduction approaches, the housing stability specialists were able to help participants through these challenges to ensure they remained safely housed. Participants reported a high degree of satisfaction with this support, describing their caseworkers as respectful, empowering and highly knowledgeable about how to navigate housing and social service resources.

Figure ES 6. **Housing stability challenges among HBAH participants at baseline** (intervention group, n=50)

- **96%** Bad, poor or no credit score
- **48%** History of criminal justice involvement
- **60%** Electrical bill arrears

*One participant was labeled as “missing” in the electric arrears count

**Source:** University of Delaware

Figure ES 7. **Income and housing cost burden among HBAH participants** (intervention group, n=49)

- **46%** No income at baseline
- **33%** No income at exit

**Median monthly income** among HBAH participants at exit: $700

**Median monthly housing cost** at exit for HBAH participants with ongoing housing assistance: $150

**Median monthly housing cost** at exit for HBAH participants with time-limited housing assistance: $820

**Fair market rent** for a 2-bedroom apartment in Franklin County, 2020: $992

**Note:** The Fair Market Rent (FMR) is the 40th percentile of gross rents for typical, non-substandard rental units occupied by recent movers in a local housing market. For comparison, the median is the 50th percentile. Gross rent includes housing and utility payments.

**Source:** University of Delaware and National Low Income Housing Coalition, “Out of Reach 2020.”
HBAH families faced substantial economic challenges that were exacerbated by the COVID-19 pandemic.

Low wages and difficult housing market. At baseline, 34% of the women in the intervention group did not have a high school diploma or GED and, among those who were working, low-wage jobs in the service sector were common. The gap between the income of HBAH families and the cost of housing in Franklin County was stark (see figure ES 5). At exit, 33% of families reported no income, down from 46% at baseline. By the end of the study, the median monthly income of participants was $700. Given that the median fair market rent for a 2-bedroom apartment in Franklin County in 2020 was $992, HBAH families face enormous challenges to housing stability in the absence of ongoing rental assistance (see figure ES 7 on p. 4).

Pandemic job loss and child care shortages. The COVID-19 pandemic destabilized employment progress made by many families. Almost half of the women (45%) reported job loss as a result of the pandemic, and 30% reported loss of child care and/or difficulty finding child care due to the pandemic.

Racism, trauma and violence must be addressed.

Systemic racism and housing segregation. HBAH focused its recruitment in CelebrateOne priority zip codes, which have high rates of infant mortality (see figure ES 1). Most HBAH participants (92%), therefore, were Black/African American (see figure ES 8), reflecting residential racial segregation in Columbus and higher rates of housing cost burden and homelessness among Black/African American families in these communities. Historic and present day racist housing policies, residential segregation and neighborhood disinvestment have contributed to poor health outcomes in the CelebrateOne priority neighborhoods.

At exit, over half of HBAH participants (61%) were living in zip codes that were majority Black and/or high poverty (57% of families living in zip codes where >30% of households live below the poverty line). Notably, participants with time-limited housing assistance were less likely to be living in these segregated, high-poverty zip codes, indicating that some families had to choose between housing stability in a high-poverty area or a potentially higher housing cost burden in a more mixed income “high-opportunity neighborhood.”

Trauma and violence. The neighborhoods that many HBAH families live in also have higher rates of crime and violence. Some participants reported that they did not like the neighborhood they were living in, often because of violent neighbors. Many also experienced domestic violence during or prior to participating in the study.

Figure ES 8. Race of HBAH participants (intervention group, n=50)

92% Black/African American
8% White

Source: University of Delaware
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: National Equity Atlas, “Housing Burden. Columbus, OH.”
**Recommendations**

The following recommendations are informed by the evaluation results and expertise of the HBAH partners and research team.

**HBAH replication**

The comprehensive HBAH model was created to test the impact of providing housing, housing stabilization and other services to pregnant women with extremely low incomes. While the scale of this research project pilot was small, positive outcomes were achieved, and the key findings illuminate recommendations for leaders, planners and funders interested in replicating HBAH to consider:

1. **Equity.** Prioritize replication in communities with high rates of infant mortality and persistent racial disparities in health outcomes and housing instability. Replicate and evaluate HBAH as part of a broader effort to eliminate infant mortality disparities through:
   a. Community engagement and inclusion of women with lived experience of housing instability in planning and decision making
   b. Culturally appropriate services
   c. Housing choices for families, including options to move out of high-infant mortality zip codes and into high-opportunity neighborhoods
   d. Resource allocation that is targeted and tailored to communities with greatest need
   e. Mitigate the impact of racist and other discriminatory policies and practices, such as exclusionary zoning and source of income discrimination
   f. Evaluation of outcomes disaggregated by race and ethnicity (when applicable)

2. **Replication and evaluation.** Replicate the HBAH model at greater scale and in other communities with rigorous evaluation to better understand the impact of the project on health outcomes, health equity, healthcare spending and long-term housing stability (see the Replication Template for additional guidance):
   a. Federal agencies can invest in a multi-site national research study
   b. Ohio state agencies can invest in a multi-site study in Ohio
   c. Philanthropic partners can contribute support for replication and evaluation at the national and/or state level

3. **Fidelity.** Ensure fidelity to the following key components of the HBAH pilot study model:
   a. Rental assistance for pregnant women for at least 24 months, including rental vouchers and housing assistance that maintains a subsidy after study exit (when available)
   b. Intensive housing stabilization services for at least 24 months—including landlord advocacy, utility assistance and care coordination—tailored to meet the needs of pregnant women of color and others at high risk for homelessness and poor birth outcomes
   c. Person-centered, trauma-informed support consistent with Housing First and harm reduction approaches
   d. Formalized and funded collaboration between housing and maternal and child health organizations with different strengths and expertise
   e. Clearly defined partner roles, including a backbone organization to coordinate activities and build collaboration across all partner organizations (see the Replication Template for additional guidance)

**Policy changes**

In addition to HBAH replication, broader policy changes are needed to improve housing access and health outcomes for families with low incomes. Partners involved in HBAH have identified the following policy recommendations that can be made at the local, state and/or federal level by public and private entities. Experience with HBAH indicates that these policy actions would contribute to better outcomes for HBAH families, as well as other pregnant women and families with young children who struggle with housing instability and homelessness.

HBAH is needed because these policy issues have not yet been adequately addressed. If these policy changes are accomplished, the need for intensive interventions, like those implemented as a part of the HBAH pilot study, will be mitigated.

**Policy changes to improve housing stability for families with extremely low incomes**

4. **Equity.** Public and private entities at the federal, state and local level can prioritize housing stability services, including rental assistance, for communities with high rates of infant mortality and persistent racial disparities in health outcomes and housing instability.
5. **Rental and other housing assistance.** Public and private entities at the federal, state and local level can provide targeted rental and utility assistance to pregnant women at high risk of infant mortality. This could be accomplished in several ways:
   a. Advocate for more federal funding to provide rental assistance (e.g., Housing Choice Vouchers) to support programs that serve pregnant women at high risk of infant mortality
   b. Provide rental assistance from the Ohio Housing Trust Fund or other state or federal funding sources (e.g., **HOME Tenant-Based Rental Assistance**) to support programs that serve pregnant women at high risk of infant mortality
   c. Encourage public housing authorities to set-aside housing choice or other special purpose vouchers and/or prioritize public and/or assisted housing for pregnant women at high risk of infant mortality

6. **Housing stability services.** Public and private entities at the state and local level can support implementation of housing stability services into healthcare and social services, which are paired with rental and other housing assistance provided to extremely low-income pregnant women who are at risk of infant mortality. This could be accomplished in several ways:
   a. Advocate for the U.S. Department of Health and Human Services to create recommendations and guidance on how housing stability services can be provided to pregnant women with low incomes who are at risk of adverse birth outcomes (similar to guidance provided for chronic homelessness)
   b. Leverage Medicaid and expand other sustainable state funding streams to expand housing stability services
   c. Encourage Medicaid managed care organizations (MCOs) to develop and implement “in lieu of services” packages that include housing assistance
   d. Engage health system stakeholders, such as MCOs, to fund housing stability specialists for high-risk pregnant women to partner with housing partners to deliver rental and other housing assistance
   e. Advocate for more federal funding to provide rental assistance (e.g., Housing Choice Vouchers) to support programs that serve pregnant women at high risk of infant mortality

**Policy changes to improve supply of affordable housing**

7. **Equity.** Local policymakers can increase the supply of affordable housing in high-opportunity neighborhoods by implementing inclusionary zoning and streamlining housing development approval processes.

8. **Housing units.** Public and private entities at the state and local level can increase the supply of quality affordable housing units through investment in new construction or renovation of existing units. This could be accomplished in several ways:
   a. Provide OHFA and/or local incentives for developers who are competing for housing credits to establish partnerships with housing authorities and housing stability providers that serve pregnant women at high risk of infant mortality
   b. Encourage healthcare systems and health insurance companies to invest in affordable rental housing and reserve units for programs that serve pregnant women at high risk of infant mortality
   c. Advocate for more federal investment in affordable rental housing, including advocacy to make Housing Choice Vouchers (and/or other housing assistance) available to everyone who qualifies (eliminate waitlists by making this benefit an entitlement)

9. **Property owners.** Local governments can increase the number of property owners willing to rent units to families with very low incomes. This could be accomplished in several ways:
   a. Require property owners to remove discriminatory practices (such as source of income exclusions) so that pregnant women at high risk of infant mortality can have equitable access to affordable housing
   b. Encourage landlords to offer and maintain affordable rental housing through tax incentives and damage insurance funds
   c. Enact mediation requirements before filing evictions due to non-payment of rent for any landlord that owns two or more properties
Policy changes to increase employment and income
The following policies are most critical for supporting family economic stability, which is foundational for housing stability:

10. **Equity.** Local policymakers can prioritize communities of color and families with young children when making decisions about child care, transportation and job training resources.

11. **Wages.** State and local policymakers can increase access to self-sufficient wages:
   a. Increase the minimum wage and/or encourage employers to offer living wages
   b. Incentivize or require employers that receive tax abatements to hire workers from the local community
   c. Make the Ohio Earned Income Tax Credit (EITC) refundable

12. **Child care subsidies.** State policymakers can strengthen Ohio’s child care subsidy to ensure that affordable, high-quality child care services are available for families with extremely low incomes:
   a. Streamline and expedite access to child care subsidies by reducing bureaucratic complexity of the application and allowing the subsidy to be secured while a parent is seeking employment and beginning a new job
   b. Increase Ohio’s child care subsidy eligibility requirement to at least 200% of the Federal Poverty Guideline

In addition, the following issues should be addressed to support housing stability:

13. **Collateral sanctions.** State and local policymakers can reduce legal barriers that prevent people with criminal records from getting jobs:
   a. Eliminate excessive sanctions, expand use of Certificates of Qualification for Employment and other criminal justice reforms
   b. Ensure that initiatives to recruit employers to accept applicants with criminal backgrounds focus on a wide range of sectors, including businesses that are more likely to hire women

14. **Transportation.** Local policymakers and transit agencies can strengthen local transportation access:
   a. Increase bus routes and improve bus route frequency to better connect workers to jobs and child care
   b. Provide reduced fare or free transportation for vulnerable populations, such as pregnant women with low incomes, to access health and housing services

15. **Education and job training.** State and local policymakers can promote opportunities to increase educational attainment and workforce development to help extremely low-income households attain and maintain financial stability:
   a. Increase public investment in job training programs and work supports for low-income families
   b. Improve access to existing job training programs and supportive services like transportation and child care to increase utilization by pregnant and parenting mothers

16. **Medicaid access and continuity.** State policymakers can support Medicaid access for families at risk of infant mortality by:
   a. Maintaining current eligibility levels for pregnant women and Group VIII (Medicaid expansion)
   b. Extending 12-month continuous post-partum coverage for all Medicaid enrollees who have delivered a child
   c. Reducing administrative barriers to Medicaid, including improvements to the Ohio Benefits self-service portal

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**Learn more**

To read the full report and learn more about the HBAH research project and CelebrateOne, follow the links below:
- [Full report](#)
- [CelebrateOne](#)
- [Healthy Beginnings at Home](#)