The BUILD HEALTH Challenge

Healthy Homes Des Moines Case Study

Reducing pediatric asthma through home improvements and education

Des Moines, IA
2018

WHAT IS THE BUILD HEALTH CHALLENGE?

BUILD seeks to contribute to the creation of a new norm in the U.S., one that puts multisector, community-driven partnerships at the center of health in order to reduce health disparities caused by system-based or social inequity.

Awardees include community based organizations, local health departments, and hospitals and health systems that developed partnerships to apply the BUILD principles.

To date, BUILD has supported 37 projects in 21 states and Washington, DC.

To learn more about the BUILD Health Challenge, see Appendix A.

The BUILD HEALTH Challenge

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* Denotes original founders and funders of the first cohort of the BUILD Health Challenge

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EXECUTIVE SUMMARY //

The BUILD Health Challenge (BUILD) is a national program designed to support partnerships that are working to address important community health issues.

BUILD followed seven sites that participated in its first cohort of awardees.

Over the course of 18 months, the three lead partners from each of these sites, representing community-based organizations (CBOs), hospitals and health systems, and local public health departments, were interviewed to not only track their progress, but also better understand how they applied the BUILD principles — Bold, Upstream, Integrated, Local, and Data-Driven — to their efforts to improve health in their communities. (See next page for more on the principles.)

The purpose of this analysis is to understand how each site conducted its work related to collaboration, data use, policy and advocacy, health equity, and sustainability. This report analyzes the results of the various core partner interviews and presents findings from their points of view in an effort to highlight lessons learned and share insights with others driving changes in population health.

This report specifically highlights the efforts of Healthy Homes Des Moines (HHDSM), formerly called "Healthy Homes East Bank," based in Des Moines, Iowa. Through a series of interviews, HHDSM partners shared how their collaboration interpreted and applied the BUILD principles, the initiative's results, and lessons learned over their two-year effort.

To learn more about the BUILD program, see Appendix A. To learn how the other six implementation sites leveraged the BUILD model, **please reference the companion reports.**

THE BUILD PRINCIPLES: A FLEXIBLE MODEL

When applied in concert, the BUILD principles — Bold, Upstream, Integrated, Local, and Data-Driven — represent a powerful model that has the potential to transform community health. The principles are the engine that drives how BUILD operates.

The model reflects an innovative and flexible approach to population health that allows each site the opportunity to identify how to leverage the five principles most effectively. No one principle is more important than the other: they are neither mutually exclusive nor independent. They serve to guide BUILD sites as they start to design strategies and approaches within their respective communities.

BOLD

Interventions that have long-term influences over policy, regulation, and systems-level change

UPSTREAM

Solutions that focus on the social, environmental, and economic factors that have the greatest influence on the health of a community rather than access or care delivery

INTEGRATED

Programs that align the practices and perspectives of communities, health systems, and public health under a shared vision, establishing new roles while continuing to draw upon the strengths of each partner

LOCAL

Projects that engage with neighborhood residents and community leaders as key voices and thought leaders throughout all stages of planning and implementation

DATA-DRIVEN

Communities that use data from both clinical and community sources as a tool to identify key needs, measure meaningful changes, and facilitate transparency among stakeholders to generate actionable insights

HEALTH EQUITY

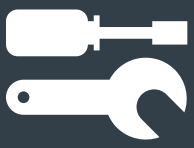
One of the goals of BUILD — although not a specific principle — is to promote health equity by creating the conditions that allow people to meet their optimal level of health

HHDSM RESULTS

> Because of BUILD, we were able to demonstrate the feasibility of implementing a housing initiative to impact a health outcome.

— The HHDSM Team

62 families received in-home asthma education



$150,000 worth of repairs were completed

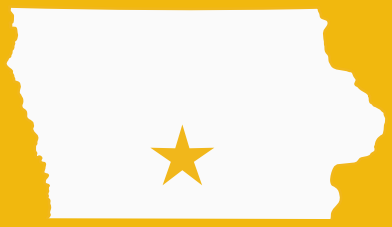
42 homes were repaired

$17,000 in supplies were given to families

38 families completed all intervention steps

6.2 more asthma-free days per month for children

- ✓ They solidified and codified their collaborative work.
- ✓ They are moving to create Medicaid policy to fund housing repair.
- ✓ All partners have a much greater understanding and appreciation of the connection between healthy homes and health outcomes.
- ✓ They have designed a project that has their three nonprofit hospitals, which are competitors, now working together around a common outcome.
- ✓ They gained two official employees of the collaborative: a project coordinator and a program evaluator.



ABOUT HEALTHY HOMES DES MOINES

HHDSM worked to reduce pediatric asthma–related hospital visits by improving the social, economic, and environmental factors that have the greatest impact on pulmonary health.

The initiative initially focused on the East Bank area of Des Moines. East Bank includes three neighborhoods with large Hispanic, African-American, and Asian populations.

In 2015, the area's poverty rate was 28%, more than double the 12% rate of Polk County, and the annual median household income was just under $24,000, compared to $59,000 in the rest of Polk County.[1] East Bank is plagued with aging housing stock and a multitude of homes with city housing code violations, often in need of expensive repairs. This is one factor that puts East Bank residents at higher risk for respiratory conditions such as asthma, allergies, and chronic obstructive pulmonary disease (COPD).

Another factor leading to negative health outcomes is unaffordable housing, which limits residents' ability to pay for necessities such as healthy food, preventative medical care, and transportation. Hospital data indicated East Bank households also had increased rates of asthma and COPD hospitalizations when compared to other, higher-income neighborhoods in Des Moines.

Early work in the East Bank indicated promising results. The participating health systems expressed a strong interest in expanding the geographic reach of their patient referrals. At their request, all patients fitting the criteria for referral were included regardless of where they lived within the city limits of Des Moines.

1 BUILD Health Challenge application.

HEALTHY HOMES DES MOINES OVERVIEW

PROJECT NAME

Healthy Homes Des Moines

CITY/NEIGHBORHOOD

Des Moines, IA

Specifically East Bank, an area composed of three neighborhoods: Capitol Park, Martin Luther King Jr. Park, and Capitol East

KEY PARTNERS

Polk County Housing Trust Fund
Mercy Medical Center
Broadlawns Medical Center
UnityPoint Health–Des Moines
Polk County Health Department
In partnership with:
Mid-Iowa Health Foundation
Visiting Nurse Services (VNS) of Iowa
Des Moines Public Schools

GOAL

Improve housing, health education, and indoor air quality, while promoting self-care and lifestyle changes.

Approach

Healthcare and housing partners came together to conduct home repairs that addressed asthma triggers and to educate families on how to manage asthma exacerbations and maintain a healthy home. As such, HHDSM used a four-step process (see chart on next page):

The HHDSM patient perspective flow chart provides details on the process for each participant. In summary, the first step was to identify homes in need of remediation. Household identification was primarily completed through data collection and referrals from area hospitals, with the possibility of referrals from local schools. Health providers and schools referred residents to the program who were between the ages of 2 and 12 and had a history of medical visits related to asthma.

Next, the home inspector assessed each home for asthma triggers such as lead, mold, allergens, and pests. Then, home repair was accomplished through coordination between health inspectors who identified risk factors and contractors who made repairs.

The home intervention services rendered included remediation to remove household-related asthma triggers. Also, families could receive household cleaning supplies, such as high-efficiency particulate air (HEPA) vacuum cleaners and nontoxic cleansers, to minimize exposure to airborne triggers of asthma.

Finally, community health workers (CHWs) and nurses educated families on how to manage asthma and maintain a healthy home.

Beyond the asthma education provided, the home visitors were often able to identify other needs the family had and make referrals to address some of the social determinants of health that created additional barriers for the family to maintain a safe and healthy household. One example of the added program benefit was with a family with a mother who was struggling with mental health issues. Not only was it important to remediate the environmental conditions for the child's benefit, but also to assist the mother in accessing mental health services to stabilize and improve that situation as well.

Partners

In addition to the three core partners (CBO, hospital/health system, local health department) required by BUILD, the HHDSM partnership involved 13 other members, including two additional hospital partners, the local school district, and several community organizations (e.g., visiting nurse organizations, a private health foundation, legal aid organization).

- The CBO leading this initiative was the **Polk County Housing Trust Fund (PCHTF)**. The CBO represented a housing organization that provides comprehensive planning, advocacy, and funding for affordable housing in the project's geographic area. The PCHTF

01 Referrals

Through examination of patient and housing data, the community partners collectively established a strict set of referral criteria for children being seen at area hospitals, emergency rooms, and clinics, as well as in school nurses' offices. Households meeting all criteria were referred to the program.

02 Assessment

A trained inspector identified asthma triggers present in each child's home and prepared a written work order for needed remediation.

03 Repairs

HHDSM engaged contractors to make needed repairs.

04 Healthy Living Education

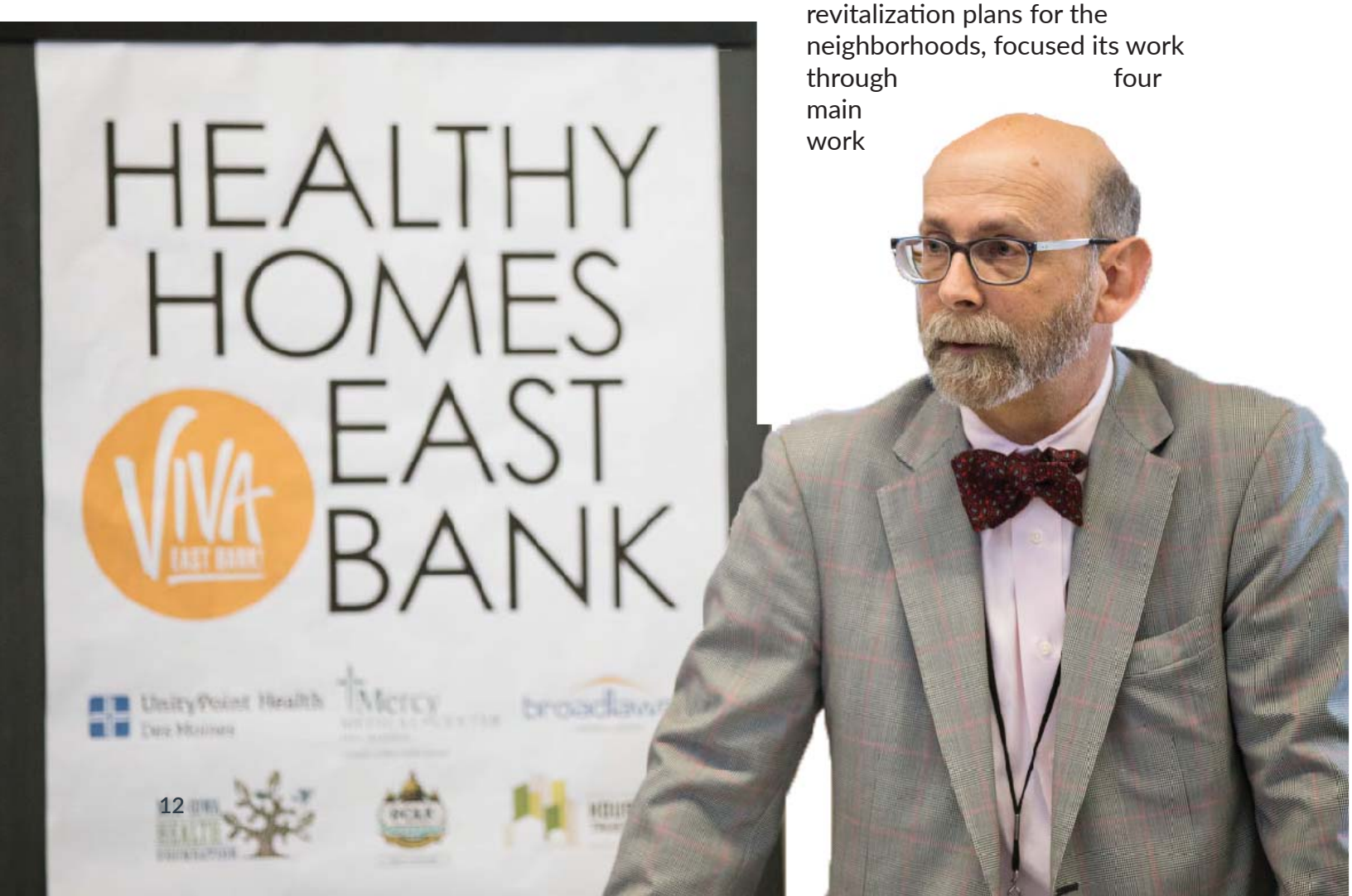
Community health workers (CHWs) specializing in asthma conducted education programs to teach participants how to control asthma symptoms. Cleaning equipment and supplies specific to each household's needs were provided, along with instructions on how best to use them to mitigate asthma triggers.

staff offered housing-specific expertise, the capacity for project management, and assistance in data management and reporting. The majority of the cost of home remediation for HHDSM was paid for with PCHTF dollars.

- Three local hospitals, **Mercy Medical Center**, **Broadlawns Medical Center**, and **UnityPoint Health–Des Moines**, were instrumental in executing data integration for the project. Because of the strict criteria for inclusion in the program, the vast majority of the referrals came directly from the medical staff at the three hospitals.
- The local health department was the **Polk County Health Department**, which led efforts related to designing an intervention with upstream solutions and provided expertise in social determinants of health, including leading policy work. Additionally, this partner offered the services of its housing inspector trained in identifying conditions that lead to poor health outcomes, including triggers for pediatric asthma.

Below is a list of the roles of some of the additional key partners:

- **Viva East Bank (VEB)** is an umbrella community organization that provided the foundation for the local coalition network. VEB includes residents, business owners, and stakeholders from the three target neighborhoods that worked toward the shared vision and goals of making the neighborhoods desirable places to live with a high quality of life. Thus, the coalition, which was responsible for implementing revitalization plans for the neighborhoods, focused its work through four main work



groups: Housing, Business Districts, Infrastructure/Public Spaces, and Community Programs. This coalition served as a convener, bringing together residents and community partners, which offered the partnership a network of people already working to improve the area.

- **The Mid-Iowa Health Foundation** served as a catalyst and partner for improving the health of vulnerable people in the target area. The foundation was a part of the strategic planning board in a decision-making role and provided additional resources for the project.
- **VNS of Iowa** provides medical and social services for women, children and families, and adults and seniors across the state. Staff includes nurses, social workers, case managers, and outreach workers. The organization also offered translation services in 30 languages to meet the needs of the state's diverse population. VNS of Iowa provided the tailored asthma education program for the households and remains the point of contact for each family.
- **Des Moines Public Schools** worked specifically to refer school children with asthma for the intervention. School nurses are a critical link in the chain. They know which kids are struggling with asthma control because they see them in their offices. Kids spend much of the day in school, and nurses provide additional sets of eyes focused on identifying children who are struggling.
- **Polk County Public Works**, **Greater Des Moines Habitat for Humanity**, and **Rebuilding Together–Greater Des Moines** worked together to provide the necessary home repairs.

A timeline describing each partner's role and milestones is shown in Appendix B. Specifically, the partners used the first few months to finalize the referral criteria and

to address certain requirements of one health system in order to provide referrals. The goal was to have the first referral to the intervention in September 2015.

Introduction to HHDSM Collaborative Work

"Most of us who are sitting around the table are not new to one another … We're just working together at a deeper, better-coordinated level, so there's a history of relationships that we can strategically fall back on when problems happen."

The HHDSM initiative and formal collaboration emerged in 2015 as an organic successor to the partners' lead remediation work over the past 10 years. BUILD served as the catalyst for the partners to develop deeper connections and a broader, more comprehensive approach to addressing challenges related to pediatric asthma. Moreover, the partners explained that internal policies within their organizations ultimately informed how they interacted with outside collaborators.

"The development of this project came out of conversations that took place between the health department and a couple of our key partners, particularly a [coalition] and [nonprofit partner]. Both were interested in changing their own institutional organization's policies about what their goals were in a way that allowed us to work together… The idea of impacting the internal home environment as a strategy of creating health

became an internal policy decision for both of their organizations. That was a decision they wanted to think about—that was the kind of organization they wanted to be—and out of that conversation came this specific project which we are implementing, which is to do asthma mitigation."

Evolution of HHDSM

The three lead partners (CBO, hospitals/health systems, local health department) stated that their decision to focus on pediatric asthma was the result of a thorough assessment of the health challenges experienced in a struggling zip code of their city. Data from all three health systems indicated that the neighborhoods of focus had the highest concentrations of pediatric asthma emergency room (ER) visits. Moreover, the data from the county demonstrated that there was also a high concentration of homes in "below normal conditions." As such, partners explored the relationship between asthma hospitalizations and poor housing, helping them to prioritize pediatric asthma as a chronic condition that could be improved within a reasonable time frame, as explained by one partner:

"*We looked at hospital data that we were able to get on a few different chronic conditions… One of them was COPD, one of them was obesity, and one of them was asthma. We started with asthma because we can conceivably show an improvement in the two years we'd be implementing this initiative. The other things can come in the future, but we wanted to show a return on investment in the community, and we've seen other communities successfully do that with asthma.*"

After the launch of their BUILD initiative, the partners realized that expanding the reach of their program from one zip code to the whole city would allow more families to take advantage of the resources available. The BUILD partnership allowed for an expansion of the program to additional areas of need. It also addressed a frustration experienced by the health systems (referrers) that limited participation to a small portion of their patient population.

"*We applied for the BUILD grant with one specific zip code in mind … Some of the referrals we received are from out of that zip code so we needed to modify the eligibility criteria … It wouldn't change the way that our referrals are processed; it would just open up the opportunity to more people in our community.*"

Key Accomplishments

HHDSM had a two-year goal of repairing 150 homes, at 75 homes per year. By 18 months into their project, HHDSM

Members of the HHDSM team

had invested over $150,000 in asthma-related home repairs in their core target neighborhoods. The partners shared:

> ***"These home modifications preserved affordable housing and improved living environments for children struggling with asthma symptoms. Twenty-six medical providers in the target area and surrounding areas referred a total of 122 patients to the program. In-home asthma education was given to 51 families, and a total of 24 families have completed the program so far. Based on those numbers, HHDSM has had a direct impact on more than 200 area residents. Furthermore, responses from post-intervention assessments indicate a nearly unanimous positive impact on a family's knowledge of asthma triggers, self-care, home environment maintenance, and disease symptoms."***

HHDSM has enjoyed a number of successes, which are briefly described here, with additional details available in the body of the report:

- **Multisector partnership.** The collaborators were able to develop a robust, integrated partnership with 13 formal partners. Although initially 10 members came together to write the grant and execute the plan, since its execution, additional partners have come on board. These new partners have helped expand the

program's reach as well as the resources available for referred households.

- **Comprehensive data system.** A data application was created that lives online and provides medical providers a trustworthy solution for making referrals. The system is adaptable as the project progresses and can be used for many years. More detail on the data system is in the "Data-Driven" section.
- **Sustainability plan involving new policy and advocacy initiatives.** HHDSM is working toward developing a sustainability plan that includes engaging third-party payors (managed care organizations and Medicaid policy) as an integral component to sustaining the project beyond the BUILD award period.

Over the last two years, the partners have come together to leverage each of their individual agency's strengths and resources in a shared vision for decreased pediatric asthma in their local community. Their efforts related to this initiative fostered relationships and will help ensure each partner participates in the collaboration long-term, even in light of staff or organizational changes.

HHDSM'S APPLICATION OF THE BUILD PRINCIPLES

While the five BUILD principles were actualized in different ways for each of the various implementation sites, the first cohort's application of the BUILD model was important in demonstrating its principles and understanding their impact. The application and evolution of the model can be helpful to other communities intending to replicate and sustain their upstream efforts as well as to the second cohort of BUILD sites.

HHDSM exemplified the BUILD principles in several ways. HHDSM's intervention is ***Bold*** because it offers an out-of-the-box solution by focusing on mitigating housing's effects on asthma-impaired children while also developing solutions to sustain the work. By aiming to move ***Upstream*** in asthma control and addressing environmental factors that make control difficult and traditional treatments less effective, it effectively brought together a collaborative, ***Integrated***, multisector partnership of numerous community organizations, residents, the local health department, and three hospital systems. In their ***Local*** community, residents and numerous partners and stakeholders were involved and lead various aspects of the initiative, including tenants' rights advocacy work. The project also built institutional support for ensuring healthy living environments for asthma-impaired children elsewhere in the state by using ***Data*** to make the case for the cost-effectiveness of upstream interventions, securing third-party funding, adding legal recourses for tenants, and involving family support professionals in household environment improvement. As the HHDSM representatives shared, it was the application of these principles together in relation to their unique effort that helped them achieve their goals.

Table 1 depicts the sections throughout the report that identify how HHDSM specifically chose to apply the BUILD model to address its unique

challenges and provide insights into outcomes and early lessons learned.

The partners sum up their motivation to pursue a more integrated, holistic, upstream effort:

> *"Our coalition believes that a community health needs assessment can indicate the prevalence of chronic conditions, but the efforts of healthcare providers alone will fall short if done in isolation from other sectors. Recognizing this, leaders in housing, health, and local government identified pediatric asthma as a significant community health concern, and housing as a key modifiable determinant. HHDSM is the product of engaged stakeholders with a shared vision and responsibility for the community's health. In developing the intervention, we used a stakeholder engagement process, aligning agencies that have the influence to impact systems-level change in [Des Moines]. The collaboration brings together the expertise to implement an upstream approach and the partnerships necessary to create community change."*

	Bold	Upstream	Integrated	Local	Data-Driven	Health Equity
Policy & Advocacy	✓	✓		✓		✓
Collaboration	✓		✓	✓		
Housing Intervention	✓	✓	✓	✓	✓	
Data Platform	✓		✓		✓	
Sustainability	✓		✓	✓		
Community Engagement				✓		

Table 1: HHDSM Application of BUILD Principles

BOLD

The BUILD definition of "bold" emphasizes interventions that have long-term influences over policy, regulation, and systems-level change.

HHDSM's efforts were bold in three specific areas:

01 AN INNOVATIVE IDEA

Undertaking home repairs was HHDSM's bold approach to addressing asthma triggers that goes beyond traditional healthcare.

02 POLICY AND ADVOCACY INITIATIVES

Through the first cohort of BUILD, HHDSM uncovered many important learnings that have laid a foundation for informing its policy and advocacy work for the second cohort of BUILD, including the initiative's sustainability.

Specifically, through the second cohort HHDSM is leading the way in helping its city develop: (1) new housing and rental codes that ensure a safe and healthy home environment, (2) policy that includes housing repairs as an expense billed to Medicaid and other managed care plans, and (3) advocacy initiatives that ensure tenants' rights are protected and include community tours to demonstrate to local officials the assets and needs within the community.

03 SUSTAINABILITY EFFORTS

HHDSM discovered early on in its work that it is third-party payors, not hospitals, that have a financial interest in reducing costs.

As such, the partnership is committed to shift some of the financial burden of continuing their work to managed care organizations and landlords who see financial gain from reduced medical costs and steady rental income, respectively.

The HHDSM initiative exemplified the Bold principle in several ways, most notably by implementing a new and unique method for systems-level change that connected community partners and aligned agencies with a shared vision to reduce asthma hospitalizations in their community.

Their approach was innovative in that it addressed housing environments as a core driver of asthma by organizing repairs, spurred systemic change through addressing policy and advocacy in housing and rental codes and Medicaid reimbursement for housing repairs, and potentially created sustainable processes that involve other systems and partners such as managed care plans and landlords.

BOLD: AN INNOVATIVE IDEA

The partners worked together to design an intervention that went beyond healthcare delivery and individual services to highlight the profound connection between housing conditions and health

outcomes. They ultimately came together to respond to a call to action stemming from a sense of obligation to address systems and eliminate health disparities — specifically asthma outcomes among children — to improve conditions for the most vulnerable in the community.

> *"The conversation is no longer about what these families need to do. It's a conversation about what we need to do because we're the authors of those policies … that families have to live with, and we have to accept that. Many of us in health have recognized we have to make a commitment to making the community better, not just delivering vaccines and physicals and patching people up when they show up in our rooms. We have to go further and recognize … there's a greater responsibility in terms of the decisions we are making that play out in other people's lives."*

HHDSM's bold approach to addressing the housing environment, although not focused on healthcare delivery, engaged the local hospital systems in addressing systemic issues beyond medical care. The partners further explained that their BUILD initiative was also innovative in their community because historically, area health systems had lacked a focus on prevention:

> ***"Currently, the area hospitals operate fairly independently, and from patient-to-patient, with little engagement in addressing greater systemic problems. This project will bring hospital partners around the same table, engaging them in developing solutions for health conditions they cannot solve alone. This intervention is focused on improving indoor air quality to reduce pediatric asthma, but we hope the success of using housing as a 'vaccine' will generate innovative community-wide solutions for additional health conditions in the future."***

As such, their initiative was bold in developing a new idea and pushing partners to think outside the traditional framework of healthcare delivery and begin to address housing as a health issue. Moreover, the project pushed partners that were new to these ideas to take leadership roles and collaborate to design an out-of-the-box intervention, including addressing policy and systems, because they had historically been restricted in what they could do. While this type of approach is new, particularly for hospitals and housing development organizations, they were successful in getting the partners to move from service delivery to a systems-level approach and planning policy work.

BOLD: POLICY AND ADVOCACY INITIATIVES

Policy Initiatives

The HHDSM partners experienced some significant learning outcomes that have launched several policy and advocacy initiatives in the first cohort of BUILD that will continue through the second cohort. These policy and advocacy initiatives have the goals of addressing community barriers to adequate housing and improving home environments for families with children with asthma.

The partners have a long history of engaging in policy and advocacy work in their geographic region. Prior to BUILD and over the last 10 to 25 years, all three partners demonstrated extensive influence in local policy in their respective areas of strength: the nonprofit partner mentioned playing a role in long-term city planning in "[specifying] some of the key housing challenges in this community and [proposing] some policy solutions to those [challenges];" and the hospital partner mentioned proposing a wide range of child-safety initiatives based on problems frequently seen in its clinics, including "car seat safety, seat belt issues, texting while driving issues, even some window lock policies."

All partners spoke of having cultivated longstanding relationships with officials across various sectors in their region, which allowed them to have "a voice at the table" in most policy conversations. Consequently, it is not surprising that the BUILD project "emerged organically as a natural successor to their policy work over the past 10 years."

There were two primary policy efforts led by HHDSM during the first cohort of BUILD that set the stage for HHDSM's work in the second cohort of BUILD. As of August 2017, both policy initiatives were in the first phases of development; they will be implemented in the second BUILD cohort:

- **Housing and Rental Policy.** The partners propose rewriting the city's housing and inspection codes, an effort that landlords were reluctant to support.
- **Medicaid and Billing Policy.** The partners plan to pursue Medicaid managed care policy change such that housing interventions could be billed to Medicaid.

There were two additional advocacy-related efforts:

- **Tenant Advocacy.** This initiative is led by the CBO.
- **Community Tours.** These were conducted with community officials to spread awareness of HHDSM's BUILD efforts.

HHDSM's initiative required a shift toward thinking about policy and systemic changes for both healthcare delivery and the housing sector. The idea of policy change using an interdisciplinary approach was new to many of the partners, and creating this type of systemic change required the partners to move beyond how they typically conducted their work as individual organizations. As shared by one of the partners, a policy conversation exposed an unspoken tension among the partners:

> *"There's a much higher comfort level when the conversation is around helping people than there is around … what is generally labeled as politics. You know, the whole notion of getting into the policy arena and engaging elected officials and … institutional leaders on those decisions."*

Additionally, one partner shared how other colleagues in the field are often uncomfortable in advocacy simply because it is different from the service-delivery field they chose to work in. However, both hospital and health department partners agreed that people in human and social services, as well as healthcare providers, are gradually moving towards policy and advocacy because "it doesn't matter how well we treat the child [if they] keep showing up."

Roles in Policy and Advocacy Initiatives

Both the local public health department and CBO partners took the lead on the policy and advocacy initiatives. Despite a long institutional history of policy and advocacy, the hospital partner has largely provided "support where [it] can," especially with regard to public relations "in terms of really trying to tell the stories" of what the collaborative has been able to accomplish. However, the hospital partner shared during an interview that it expects to be "much more intentional and engaged [with policy and advocacy] within the next year."

Policy #1: Housing and Rental Policy

Data on housing and home remediation was instrumental in identifying

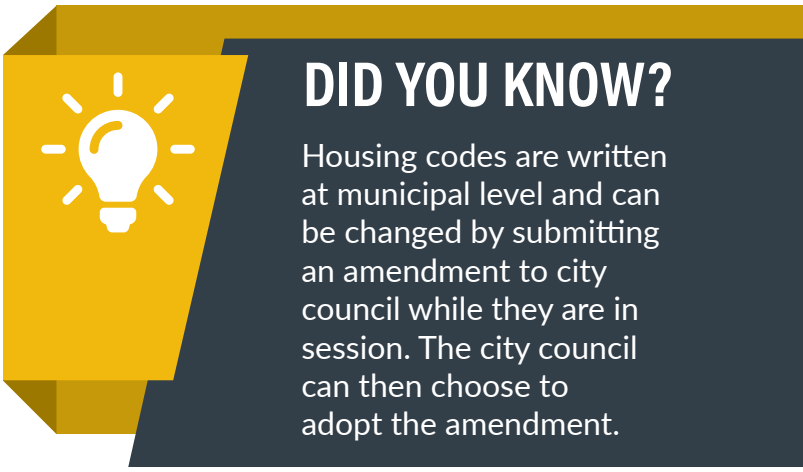
deficiencies in rental property policies within the city and helped the BUILD partners shift from program to policy.

Local hospital and housing data, combined with national research on the connection between housing and asthma, also helped the partners shape their BUILD initiative. Specifically, the partners made two important findings. First, the condition of single-family rental housing was worse than anticipated. The current rental code was insufficient to deal with conditions that negatively impacted health. Second, many of the families had no written lease or their lease was insufficient to grant them the sort of housing stability necessary for a positive situation.

To address this, HHDSM brought in legal aid as a partner in year two of this project to help make sure all the tenants had a proper lease. As such, this work laid the foundation for HHDSM's policy and advocacy efforts in the second BUILD cohort: to rewrite the rental inspection and code for the city, particularly including recommendations that required pest management methods to ensure dwellings are free of infestation.

The nonprofit partner was most active in work on the housing and rental policies. They described how they worked with the public health department and city officials to begin developing the new rental policies:

> *"We spoke with the city staff members rewriting the code and updating it and we submitted some healthy homes supplementary code items. I worked with my local health department partner to do that. We based it on some standard healthy housing code that we found was in place in other areas of the country. And so, we ... hope that we have an influence there. We also talked to the city about getting their inspection staff trained in healthy housing so that they can understand ... the significance of a leaky pipe or the significance of an old dusty carpet on the health of a child."*



One of the strategies they used to begin facilitating change around rental codes was to engage their partners at their local legal aid organization. The organization assisted tenants to help address issues related to leases and rent. For example, tenants with month-to-month leases were most vulnerable as landlords were less likely to abide by any of the existing codes. With the assistance of legal aid, "tenants could have a little bit more leverage because in the past they were underrepresented and more at the mercy at landlords because they could not afford any kind of legal representation or help with looking at leases."

One partner also expressed concern about potential blowback from their rental policy initiative, stating that "if we make a major effort to put a whole lot of things in the rental code, then the landlord association is going to fight back big time." However, no formal opposition had taken shape at the time of the interview, as a lot of the policy suggestions were "not formal yet." This partnership with legal aid, along with pushing for policy change around rental codes and landlord practices, has the goal of creating systemic change related to housing environments, resident-landlord relations, and ultimately promoting overall health and well-being.

Policy #2: Medicaid and Billing Policy

The second policy effort, which centered on Medicaid managed care billing, was initially discussed and highlighted as a critical component of HHDSM's work in the first cohort of BUILD; instead it will be a major component of the partners' work for the second BUILD cohort. The Medicaid managed care billing efforts were developed to help address the scale and sustainability of HHDSM's overall BUILD initiative, which is described further in "Sustainability." The health department took the lead on initial efforts to develop a policy effort to institute changes in Medicaid policy such that housing

interventions could be billed directly to Medicaid, which could also serve as foundational revenue for the initiative:

> *"A high percentage of the kids we are seeing through asthma mitigation program are Medicaid kids, so we have begun initial conversations with the managed care companies around changing, advocating that these kinds of home mitigation strategies be Medicaid reimbursed. I think there is plenty of evidence the cost of addressing asthma triggers in a home are far, far smaller than the cost of an emergency room visit for a child with an asthma attack. Given that, they ought to rethink what are considered acceptable reimbursable expenses to get outside of the traditional medical model in which, if it is not prescribed by a doctor and if it is not delivered by a healthcare professional, it is not real and reimbursable. That is a conversation we have flagged, and [we] have had very preliminary outreach to the managed care companies to see if that is at least a conversation we can start."*

DID YOU KNOW?

All providers under the Iowa Medicaid Enterprise (IME) are reimbursed by the state Medicaid program for services they render to Medicaid clients. The services that qualify for Medicaid reimbursement are stipulated on the Explanation of Benefits (EOB). The Medicaid benefits can be changed at the state level by Iowa's Congress and enforced by the Center for Medicaid Services (CMS).

Advocacy Issue #1: Tenant Advocacy with the Assistance of Legal Aid

The tenant rights and advocacy initiative emerged out of necessity, led by the CBO in collaboration with a local legal aid group. Many local, at-risk residents who rent were living under expired leases and thus "not protected in the homes that they live in." For a flat fee per household, the legal aid group functioned as an intermediary between each renter and their landlord, working to negotiate a lease under which the tenant is provided "protection up to two years after our repairs are complete on their home so that the environment is safer and healthier, but the rent remains the same." (In order for HHDSM to justify spending the resources to remediate the rental properties, the Management Committee required that there be a minimum period of time for the tenant to reap the benefits of the repair, which led to legal aid's involvement in ensuring this happened.) This work highlighted the importance of tenant rights coupled with new housing and rental policies that ensured dwellings met certain standards.

Advocacy Issue #2: Community Tours

The partners conducted a twice-yearly community bus tour as an advocacy strategy to drive awareness of their

BUILD initiative among both local officials and the community served.

This effort happened for two reasons. First, HHDSM partners wanted to deepen the relationship between the partners, including people who were not involved on a regular basis. Second, the effort enabled the community at large to see what progress had been made, since there had been considerable initial media coverage of the launch. The hospital and CBO praised the surprising effectiveness of the bus tour. As the hospital partner described it:

> *"We put on a bus tour of the community and some of the homes and some of the different neighborhoods. It had many of our community political leaders, business leaders, civic leaders, etc. One of the stops was our children's hospital … in which we had our CEO and our children's hospital's medical director address the group and really talk about the safe affordable housing and role it plays in overall health. We were able to convey a story on actual return… By receiving some mitigation… $4,000 it potentially saved $80,000 in medical costs. So it is those kinds of things, finding the right people to tell the right stories to the right crowd."*

The CBO added that part of what made the bus tours effective was to be able to show what conditions look like on the ground and provide context for policymakers and

local officials, many of whom "have never been in those neighborhoods" before. In talking about the tours' effectiveness, the CBO praised the tactic effusively, stating that they "had a huge turn out and people still talk about it" and that "it started a lot of advocacy conversations in the community." They added that they would recommend it to other BUILD implementation sites as an inexpensive method of engaging in advocacy work.

All partners stressed the importance of creating and maintaining diverse networks of close, informal relationships across multiple sectors on the local level in order to effectively accomplish policy directives.

DID YOU KNOW?

A Managed Care Organization, or MCO, is a health plan that coordinates your care. There are two MCOs who provide coverage to IA Health Link members: Amerigroup Iowa, Inc. and UnitedHealthcare Plan of the River Valley, Inc. Amerigroup Iowa is one of the IA Health Link Managed Care Organizations (MCOs). However, they are not currently accepting new IA Health Link members as of November 2017.

BOLD: SUSTAINABILITY EFFORTS

HHDSM's sustainability plans provided a bold solution to ensuring continued support for its community work: shifting some of the financial burden of its work to (1) managed care organizations, because they were reaping the financial benefits of reduced hospitalizations and medical visits due to asthma and other related healthcare costs and (2) landlords, due to their financial gains from rental income.

Managed Care Organizations. During the first two years of the BUILD initiative, the HHDSM partners began laying the groundwork for the Medicaid managed care policy plan that could institutionalize funding for their initiative. Their sustainability plan was to move forward to bring the new Medicaid policy to fruition. They received additional funding from the second BUILD award to fund this work. In fact, the health department partner mentioned that the partners identified approaching managed care as a long-term sustainability strategy very early in the planning process:

> *"Early on, once we started doing this work, one of us … learned that there were other communities in the country who had gotten either Medicaid permission or Medicaid waivers to get reimbursed for the kind of mitigation we were doing. So early on, we identified that as a long-term strategy about how we could really grow and reach more kids …. I think we became more intentional about*

thinking around sustainability in the last six months when it became a pretty consistent agenda item on our regular monthly meetings."

The partner further explained their motivation to engage managed care for long-term sustainability:

> "*It is a funding component .... If one of their clients ends up in the emergency room, with an asthma event or an asthma attack, the hospital will turn around and bill them for that. We believe that if we can demonstrate to the managed care organizations that we can reduce the incidence of their clients' appearing in the emergency rooms of the clinics with asthma-related issues, because we spend dollars improving their homes, then the managed care organizations ought to see ... the cost of that improvement as an expense they're willing to pay for.*"

The partners believed that the managed care organizations ought to be responsible for bearing part of the cost because "they are the ones that are reaping the benefits financially of fewer ER visits or clinic visits." The health department partner agreed, stating that their plan to target managed care was "more creative and what we believe is better grounded longer-term strategy to address all three elements of the intervention — the home visit, assessment, and mitigation of the home — to have them reimbursed by Medicaid." The hospital partner added that they were working to "show [managed care organizations] that their payment for these services would have a return on investment as well as better health outcomes," and they planned to begin by approaching one of the existing managed care organizations. If successful, they even considered looking into private insurance after that. Looking forward, the hospital partner spoke about the future:

"*... [sustainability] is kind of the biggest key with this. You know, mitigating houses can get to be an expensive endeavor, and it is not a limitless supply of money that is out to do things like this. So we need to figure out how do you continue this type of work, knowing that it does have a health impact and can lead to significantly better health outcomes for individuals?*"

HHDSM partners have faced some challenges moving forward with the Medicaid policy, not the least of which was the privatization of the state's Medicaid program. The partners expressed frustration with this development, mentioning that there was great confusion about whom exactly to communicate with regarding making these policy changes, especially as the managed care

companies that the state delegated to manage the Medicaid program "were still getting started, and [the partners] didn't know who they were" for some time.

Landlords. Partners explained why their focus was to shift the cost to landlords. They explained that because the landlords are the ones that are "reaping the benefits from the rent," they should also help pay for housing units' remediation. The partner continued to explain this further:

> *"One of the things we need to look at is addressing some issues around [housing] codes. When we go into houses, some of the things we find are living conditions that are causing asthma triggers. Some of these are things that just need to be taken care of because the house has gone into disrepair. Some of these things are in code violations, and we need to work with our local authorities to make sure they're up to speed on those type of things and addressing those issues. It is on landlords to provide safe living environments."*

Partners shared how their sustainability plans would allow them to "expand geographically but also, more importantly, institutionalize the source of funding to do the repairs in a long-term and ongoing way." Although they had not executed their strategy to shift costs to landlords, these plans were being developed.

KEY TAKEAWAYS & LESSONS LEARNED // BOLD

Undertaking home repairs was HHDSM's bold approach to addressing asthma triggers that goes beyond traditional healthcare.

The partners reflected on the major ways BUILD made a difference for their organization, their partners, and the greater community, as well as major outcomes of the project, particularly those related to the key areas described above. These reflections include:

- **Collaboration.** All three partners noted that the opportunity to collaborate in new ways was innovative and bold.
- **Medicaid managed care policy work.** The partners successfully convinced stakeholders that third-party payors can impact housing issues, which has made a critical difference for all involved and offers a sustainable plan for HHDSM to continue its work.
- **Approach to addressing social determinants through housing repairs.** This BUILD initiative resulted in all partners gaining a much greater understanding of the connection between healthy homes and health outcomes.

Reflecting on the successes of their project, one partner shared:

> *"We've done meaningful mitigation and dramatically reduced the risk of future serious asthma events for kids living in 45 homes. We have made it a very high priority in this community to address housing conditions as a way of improving health outcomes and we've designed a project that has our three nonprofit hospitals [that] spend most of their [time] competing with each other working together around a common outcome."*

As described, this site exemplified ***Bold*** in several core ways, many of which align with the BUILD principles of ***Upstream*** due to HHDSM's focus on home environment as a driver of asthma, ***Integrated*** because of the multiple partners and sectors necessary to execute the work, and ***Data-Driven*** due to the partners' application of data to continually inform their innovative ideas and processes. More details about this are included in the subsequent sections.

UPSTREAM

The Upstream principle emphasizes “solutions that focus on the social, environmental, and economic factors that have the greatest influence on the health of a community rather than access or care delivery.”

This section focuses on three core elements that are embodied in HHDSM's approach to addressing an upstream determinant of asthma:

01 SYSTEMIC IMPACT

As described in "Bold," HHDSM is attempting to address the home environment and larger policy environment that influences the home environment to reduce asthma and related health issues in the local community.

02 BEHAVIOR CHANGE

As a determinant within the larger context of the home environment.

03 HOSPITAL SHIFT IN APPROACH

This allows for hospitals to become more engaged in the actual work of addressing asthma triggers via upstream strategies.

This principle can be examined in the HHDSM site in several ways, including what upstream solutions were implemented; how communities conceptualized the work, particularly in collaboration with their partners; and how they sustained and systemized the upstream work.

Given the BUILD charge of addressing the upstream causes of health outcomes, HHDSM's approach to reducing pediatric asthma hospitalizations focused on social conditions such as housing. The partners quickly came to the conclusion that social inequities were part of the root cause of pediatric asthma hospitalizations and their initiative would address these inequities.

As described above in the summary of HHDSM's initiative, numerous partners developed a new way of working together to address housing as an upstream driver of asthma rates, using their expertise in various systems under their purview: housing, public health/community health, medical care, education/schooling, and public works.

UPSTREAM: SYSTEMIC IMPACT

As described in "Bold," the partners spoke about how they shifted from an approach that was more focused on "service delivery" to an approach that drew the connections between housing as an upstream, root cause of asthma disparities. The partners elaborated on the importance of doing this work from a policy standpoint and moving toward an upstream approach:

"We know … the funding for this initiative expires in … six or seven months and during that time we will have reached … 75 homes or 150 kids. We will have made an impact on the kids and families we can identify directly, but we also know that the only way these kinds of strategies can be taken to scale is by changing policy that in some respects precludes the behaviors, the conditions from being established in the first place, as opposed to fixing homes after the fact. … It allows us from a BUILD perspective to truly go upstream; you have to change what happens in the homes, not wait for children to have a bad reaction, but make it a requirement of every home."

UPSTREAM: BEHAVIOR CHANGE WITHIN CONTEXT

The HHDSM initiative included aspects of both behavior change as well as addressing root causes and social determinants of health. The intervention used aspects of the health behavior model for patient education, including strategies such as incremental change, empowering individuals, and fostering self-efficacy. The partners understood the importance of embedding behavior change and individual-level initiatives within the larger context in which residents lived. Their intervention considered how changing environmental factors has a greater impact on health than asking people to change their lifestyles. This realization came after the partners had been providing recurrent treatment to residents for a period of time:

> *"So, we knew that it was more than just the physical symptoms that they were showing, but there was something within their lifestyles with their environment that [was] suppressing any kind of more positive health outcomes. And so we really looked at those root causes… the social determinants of health, to find out how can we give them a better advantage or get them on equal footing as, say, someone that's coming from one of our more affluent communities for asthma treatment. Then they go home and they have a very nice home that's not dealing with anything like mold or lead or any of the types of things that might be inhibiting any kind of success at better outcomes."*

UPSTREAM: HOSPITAL SHIFT IN APPROACH

The hospital partner played an especially integral role in working to incorporate an upstream approach. Traditionally, hospitals and healthcare systems provide direct medical care and related services without having direct engagement in what would be deemed social determinants of health such as improving housing conditions for their patient population. Namely, hospital leadership is becoming more aware that traditional methods or medical interventions are not enough. The hospital partner shared how even though methods such as mobile treatment programs directly address unmet need, they do not address the upstream and root causes: "… we need to do other types of engagement, other types of initiatives that get to root causes, before we ever have to think of a different, more creative way to provide more treatment to some of these social and community issues that manifest as a health condition."

KEY TAKEAWAYS & LESSONS LEARNED // UPSTREAM

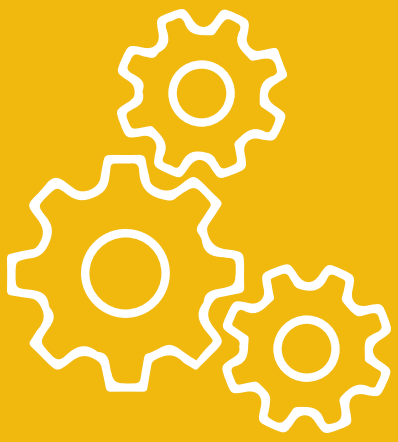
In HHDSM's process of addressing housing as an upstream driver of asthma and related issues, several advances were made:

- **Shifts and changes within the community at many levels.** Addressing housing environments as an upstream determinant of pediatric asthma has resulted in a domino effect, creating change in several related areas:

> *"When there's a kid that has asthma, and we go in and we do some work in the home, just the whole change it can make in the lifestyle of those folks that are there. So for example, it may not be just one kid that's in that house. There may be three or four kids, an extended family living in those homes, and when you're abating mold in an environment like that, you're increasing the health status of everyone in that home. [This] gives them a little more stability in their housing. And then when you start to really make a difference in a housing stock one by one, it can't help but start to raise the value of the communities and the neighborhoods. You can't help but start to address a whole host of other things that have a positive impact."*

- **Linking housing to health.** As such, HHDSM's intervention intended to bring together numerous community partners to address housing disparities using an upstream approach: by working to remediate poor housing conditions and implement policy changes mandating landlords to maintain certain standards, pediatric asthma hospitalizations will be reduced. While the partners were not new to addressing upstream factors, it was new for the CBO to link housing to health outcomes. Similarly, it was new for the hospital to address housing as an intervention to reduce health issues.
- **Uncovering other conditions impacting health.** During the two-year program, additional studies and data were released that pointed to the negative impact of housing instability on the health of residents. These were especially centered on poor mental health caused by the stress of multiple moves or the threat of eviction. Housing stability can be improved by making sure that tenants have rights that are memorialized in a proper lease. Thus, lease review and preparation became a part of the program for renter families.

HHDSM demonstrated how its ***Upstream*** approach to addressing the home environment set the stage for work in multiple areas. Its ***Bold*** solution to a long-term community health issue was brought to fruition. However, to be effective, it was necessary to have an ***Integrated*** network of partners and an integrated ***Data*** system to help guide their work. Finally, HHDSM's attention to ***Upstream*** solutions produced actionable results, thanks to the dedication of the local health department, community, residents, and other stakeholders. More details about this are included in the subsequent sections.



INTEGRATED

The Integrated principle is focused on whether programs "align the practices and perspectives of communities, health systems, and public health under a shared vision."

This principle can be observed in the HHDSM initiative by examining how the partners came together and what structure sustained the partnership.

A major goal of BUILD is to help develop, support, and sustain strong collaborations among partners in order for their work to be effective in addressing community health needs and achieving health equity. HHDSM's initiative demonstrated the "potential to create sustainable processes that integrate healthcare providers [along with community and housing development partners] into the greater community, and opportunities for stakeholders to remain engaged in efforts to promote healthy living." Integration proved to be a very important part of the HHDSM program, especially with respect to the specific interventions, collaboration among partners, and development of a user-friendly, cross-sector data system.

For HHDSM, we explored the following areas with respect to integration:

- Integration of a multilevel intervention and multisector partnership
- Integration in governance, structure, and staffing

INTEGRATION OF A MULTISECTOR PARTNERSHIP AND MULTILEVEL INTERVENTION

When asked to reflect on the process of bringing the partners together for the project, the CBO summed it up best by stating "never underestimate the power of a good relationship."

HHDSM demonstrated integration because it (1) brought together multiple partners across sectors that seamlessly worked together and (2) developed a multilevel intervention.

Multisector Partnership

Although many of the partners had previously worked together, their BUILD initiative marked the first major partnership to integrate these distinct, but overlapping, efforts. As explained in the application:

> ***"The group of partners is a well-rounded mix of agencies, each with unique strengths and a proven track record of successful implementation. [Community partner] and the [school district] have a wide reach in the neighborhood, giving us a unique, on-the-ground perspective. The [CBO] and [local health department] each contribute existing successful programming, as well as financial and staff support. The hospitals bring the capacity to identify participants and***

follow up over the long term, as well as financial support and executive leadership to bring the project to fruition. Finally, [Visiting Nurse Services] will bring its experience in helping people work toward their health goals. Working together, these groups offer tremendous capacity to create change. ”

Though the partners did not explicitly say that they used a collective impact model, their efforts to integrate were similar to such a model. Through this partnership, they tapped into the strengths and assets of its core partners to address the enormous health challenges of asthma hospitalization and healthy homes. Each partner had a specific role, and while they did not work on the same part of the project, they worked together to coordinate the various components. The partners had an extensive referral plan that included hospitals and schools as well as a home remediation plan that included working with several agencies that helped them find contractors willing and able to do the work. The public health department and VNS of Iowa assisted with health education related to asthma. A key to this site's success was the coordination among numerous partners working to develop a common vision, which was facilitated greatly by their alignment with a local coalition's established network of people already working to improve the area.

As they developed the concept for their BUILD award application, the core partners mapped out additional individuals and organizations that would be able to play a role in the BUILD initiative. Based on the aims and scope, they understood the program components and accompanying expertise that would be necessary to carry out their initiative:

DID YOU KNOW?

The Collective Impact approach is premised on the belief that no single policy, government department, organization or program can tackle or solve the increasingly complex social problems we face as a society. The approach calls for multiple organizations or entities from different sectors to abandon their own agenda in favor of a common agenda, shared measurement, and alignment of effort.

“ *We looked at the services we wanted to provide and every piece of the intervention, and as we were mapping it out, we were able to identify who in the community would be best suited to play each role in each step of the process… Those agencies were asked to participate if they weren't already at the table, and the reason we asked is because they were already doing those things in the community. But we were just able to get them to tailor their efforts specifically towards social determinants of health causing asthma in this neighborhood.* ”

Having the right people at the table and providing structured meeting opportunities were critical to creating and sustaining a strong, integrated collaboration and shared vision. Partners had several pieces of advice for other partnerships that may be working to bring multiple entities together on a common vision: the importance of leveraging each partner's unique strengths and financial resources, creating clear communication processes, and building trust between diverse partners. Each member or organization must add new value without which the work would not be feasible, leading to an integrated, collaborative project:

> *"The collaboration doesn't work as a collaboration if potentially any individual member can walk out of the collaboration and do it on their own."*

One partner emphasized integrating diverse organizations by recognizing their strengths as well as creating a plan to seamlessly bring in new partners:

Member of the HHDSM team collaborating

> *"How do you figure out how to bring them [referring to another organization] into a flowing process with these other two organizations that provide very different types of services? So it is really about looking at what do you do at your core very, very well, but then how does that really play off of everyone else in your partnership? And, again, really getting an idea of what it is that you're there for and what everyone's role is and then kind of building it out from there … ."*

Building trust had been instrumental in the success of BUILD:

> *"We're building on existing trust … and we're deepening this trust through our management team … which continues to meet every two weeks. While there's a written agenda, there's enough history and enough relationships that our meetings are very candid … and even if the conversation is critical, our trust is enhanced."*

Multilevel Intervention

The partners worked to design an intervention that seamlessly brought together home remediation efforts with community education and policy and advocacy to ultimately reduce pediatric asthma hospitalizations in their local community. For example, the school district and hospital providers assisted in identifying pediatric patients to refer to the intervention. The visiting nurse organization worked collaboratively with home remediation providers to offer health education while having the home repaired. Finally, the legal aid organization worked to establish leases that ensured tenants' rights were recognized and provided housing stability to families.

The partners spoke of the numerous intersecting issues from the very beginning of the project. Specifically, they discussed the environmental and social conditions contributing to the prevalence of asthma in the families targeted by their BUILD project. The nonprofit partner added that there is a greater appreciation of the interrelatedness of health and housing among the partnership that was not there before BUILD. The partner attributed it to the fact that "this program is very intentional about what it's looking for, what it's trying to do, the outcome it's trying to achieve, and that's been helpful working with people [housing partners]."

A team lead for the HHDSM project shared learnings on a panel with other collaboratives.

INTEGRATION IN GOVERNANCE, STRUCTURE, AND STAFFING

The partners spoke of creating the necessary infrastructure (including organizational processes and interorganizational agreements) to "facilitate the blending and integration of the existing relationships into a higher level of partnership." This included the many key elements that led to building a collaborative, integrated partnership and described several structural, interpersonal, and program-related factors as important for developing a strong partnership.

The structure of the partnership, "rules of engagement," and decision-making processes were instrumental in ensuring each component of the initiative was integrated and that each partner was able to contribute fully to the team. When asked to reflect on the experience of a team-based approach, one partner described the meetings as inclusive, purposeful, and clear. This was especially important as the partnership worked to identify and fill project roles. That interviewee said:

> *"Everyone knew what [they] were responsible for as partners .... [Decisions] didn't get put into process without someone who could do it. We've been able to make it clear that we expect to operate this group and its initiative as a collaborative when it comes to decision making."*

One partner shared how regular, in-person communication was critical in making decisions:

> *"When we are making decisions, we're sitting around a table face-to-face … with paper in front of us …. For the most part, when we need to make decisions, we get together … which is why we still meet every other week."*

An aspect of the partnership that has been integral to managing the collaboration is the utilization of written agreements and Memoranda of Understanding (MOUs) to establish responsibilities and roles and to "integrate all of our different protocols, processes, and criteria [into] one theoretically seamless initiative." There were a total of four partnership agreements and five MOUs between Polk County Housing Trust Fund (fiscal agent) and the various partners, including the health systems, VNS of Iowa, and legal aid. These documents outlined the project, deliverables, and specified partner roles. Copies of these MOUs are located in Appendix C.

The partners also had a governance structure, in which strategic direction for the project was the responsibility of a committee made up of the representatives from various community stakeholders with an interest in the neighborhoods and the success of the project. These stakeholders included funders, potential funders, and BUILD partners and met quarterly to discuss progress and suggest any course corrections.

The management of HHDSM was delegated to a committee comprising representatives from the three core partners and other organizations providing direct funding. This committee met on a regular basis to implement the aforementioned strategic direction.

HHDSM added a project coordinator and program evaluator to its overall team — two staff members it did not have prior to BUILD. Having a dedicated staff person to manage the project was critical to the success of the initiative; the role ensures that the project continues to move forward and shepherds the integration of project components. Additionally, the program evaluator stimulated productive conversations to facilitate the smooth operation of this multipartner initiative:

> ***"We meet with all of the local funders and one of the key partners who is not a local funder biweekly. We give reports and updates, and we have a program evaluator come in quarterly and ask how the process is going. And in this way, we've been able to really move things forward and actually have conversations among the three healthcare systems that we wouldn't otherwise be able to have."***

The health department partner shared how investing in staff to help manage the process of onboarding new partners was especially strategic and important to helping integrate the partners:

> *"I think what's critical is we invested in a staff person to help facilitate conversations and help create a space where … everybody comes to the table with their own issues and their own agenda. I don't think there's anything wrong with that. When I go to the table representing the health department, I go to the table representing the health department. Once you have all these people at the table, somebody has to own [it]."*

INTEGRATION CHALLENGE

Having many partners around the table is not always easy to manage. Partners spoke of the challenge of not always being sure who was the best representative from each agency to attend the committee meetings. Specifically, they needed to identify a delegate who was not only aware of the issues and could contribute to the conversation, but who also had the decision-making power at their organization. However, the partners were clear that despite this challenge, they were committed to doing the work of integrating:

> *"Anytime you're trying to develop processes that work with different partners who operate differently, it creates a certain challenge. It's a challenge that's well worth taking. I mean, I'd much rather have the challenge of figuring out how we can create alignment of three different hospitals than choose the option of only working with one because it would be simpler."*

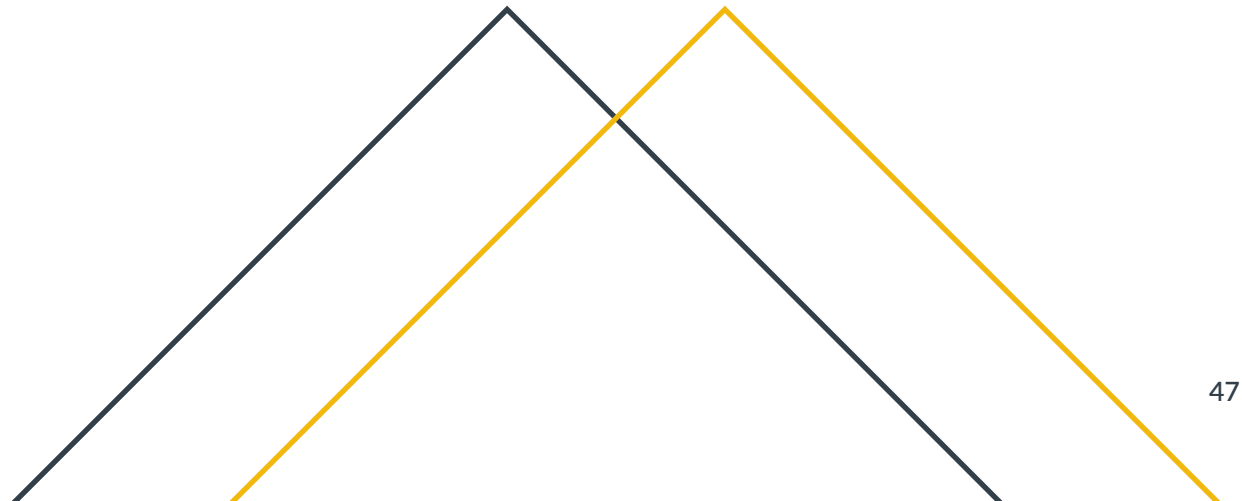
Moreover, each of the partners had to be open to new ideas about how the work was executed and resources allocated within the collaborative. For example, the CBO only funded repairs to homeowners. Funding repairs or upgrades to rental properties was considered bad policy because it enabled landlords to shirk responsibility for their income-producing properties. In order to remediate rental homes, the collaborative wanted the CBO to be open to a new way of looking at property repairs.

KEY TAKEAWAYS & LESSONS LEARNED // INTEGRATED

HHDSM was successful in bringing together a diverse group of partners with a shared vision and goal.

The partners developed a structure of governance and communication that was critical for the success of their BUILD initiative. They created an intervention with multiple components and multiple organizations working together to coordinate and implement an ***Upstream*** intervention.

Additionally, their collaboration was strengthened by recognizing the unique contributions of each partner and identifying ways in which those contributions can be maximized, working towards an integrated initiative that addresses the needs of their local community. More details about how HHDSM instituted the BUILD principles of ***Local*** and ***Data-Driven*** follow.



LOCAL

The Local principle stresses that initiatives "incorporate a commitment to community engagement so that neighborhood residents and community leaders are key voices and thought leaders throughout all stages of planning and implementation."

This principle can be understood by examining the community involved in the project, community engagement efforts, and the processes that were implemented to ensure residents and stakeholders were involved in various aspects of the BUILD initiative.

HHDSM partners have been involved in several local initiatives in various formations prior to BUILD. Their initiative was rooted in the three target neighborhoods. In fact, this initiative was an outgrowth of a city-led neighborhood revitalization planning process, where residents of each neighborhood attended meetings and discussed the future of their neighborhoods with city planning staff. This initial city-wide work got neighborhood residents engaged in the process of identifying ways they wanted to capitalize on community strengths and address community concerns.

The partners defined community engagement in two ways — as both an internal process, where the organizations take stock of their practices as it relates to their capacity, awareness, and ability to conduct community-engagement work and attract other like-minded organizations, and externally, in that HHDSM worked directly with individual households and referred families. The partners provided specific examples of the dual definitions of community engagement as it pertains to BUILD. The nonprofit partner shared:

> *"I think that there's two ways that we define it. The first is internally with our partners, the agencies that we're able to leverage to get our work out to the community. But then I also think it's the members participating in the program itself… We look at community engagement quite differently with those two groups. So I would say for the internal partners, they reach out to us saying, 'we have these resources, we can help.'"*

This section addresses HHDSM's initiative with respect to the Local principle as follows:

1. Description and history of working with the local community
2. Strategies for community engagement

LOCAL: DESCRIPTION AND HISTORY OF WORKING WITH THE LOCAL COMMUNITY

While HHDSM focused its initiative on a particular area within Des Moines, not soon after the launch, the partners decided to expand to the entire city limits. They were receiving referrals from multiple zip codes outside their

HHDSM meeting

initial target area and had the capacity to move forward with an expansion. Additionally, a third of the population in their initial target areas included tenants who rented their homes, which was the case for many families outside the initial target area. The partners explained the motivation behind this change:

> *"Initial research using local hospital data uncovered increased rates of asthma in [the East Bank] area, and yet providers were referring patients outside of the required zip codes. Sixty percent of non-qualifying referrals were outside of the eligible geographic area. Five adjacent zip codes report socioeconomic and built environment characteristics similar to those of the [East Bank area], with increased rates of pediatric asthma."*

Moreover, HHDSM's community engagement came on the heels of work led by Viva East Bank (VEB) the year before. The organization had just finished a major update of the Neighborhood Improvement Plans for the three local neighborhoods, which revealed that the condition of the housing stock was a major concern in all three plans. This plan update process was managed by students from Iowa State University and relied on extensive community engagement and neighborhood meetings. As such, each of the three plans called out improvement of properties as one of the major neighborhood objectives. When planning for HHDSM, the partners relied

on that early neighborhood engagement and the priorities in the plans to justify the property repairs and improvements as the focus of their BUILD initiative.

The partners acknowledged that the local community had been disenfranchised historically and that disinvestment in the community contributed to poor housing conditions and a built environment that fostered a distrust of government. Subsequently, these were the challenges HHDSM had to address in its community engagement efforts:

> *"I think there's a lot of collective feelings of neglect from the city. Disinvestment, certainly. Just kind of feeling like the city's forgotten them .... I think that there is some distrust for general government entities .... But I don't know that it's ever been blatant .... I think that most citizens would agree that it's a problem that they don't have sidewalks. Or the sidewalks they do have are difficult to navigate if you have a mobility issue, or they are unsafe, or the street lighting is poor. And they know that just on the other side of the state capitol, for example, is this totally revitalized area of town that's become kind of posh and the city has really invested in that."*

Additionally, given the historical lack of healthcare access for many community members, some partners revealed a growing awareness of the need to involve the hospitals in community-based efforts beyond simply providing medical care.

Each partner had a motivation for joining the collaborative and working with residents of this community. The hospital partner shared:

> *"For one hospital, we realized that we have a responsibility [for] more than just getting people in our door and saying, 'OK, we'll take Medicaid or we'll get the financial status'. It's more than that. We need to really think about if we've got a hospital in this community, what do we need to do to be a part of it? You know, how are we going to implement some things that can kind of help raise all boats?"*

The HHDSM core organizational partners had extensive backgrounds in working with their community that spanned over 20 years. The partnership previously collaborated on a local community health assessment as well as other outreach activities. Additionally, many partners were involved in the community coalition described earlier. Specific to the HHDSM initiative, the partners' roles in community engagement ranged from developing plans — both within their respective organizations and the overall partnership — for different ways in which the local community could be engaged to work with CHWs who had direct contact with residents on a regular basis. HHDSM

partners discussed the thoughtfulness with which they approached community engagement and how their overall aim was to broaden their relationship with Des Moines communities as well as ensure that relationship remained sustainable.

The partners were asked to speak about the role of the community in identifying goals, priorities, and concerns. They explained that they received feedback from the community regarding which issues and concerns were of importance to them. Importantly, attention was given to the individual concerns of each household; these concerns often went beyond asthma and resulted in referrals to additional resources appropriate to the families' needs. However, final decisions with respect to the focus of the project came from members of HHDSM. The partners discussed how their initial process focused less on community engagement efforts and more on involving key community organizations that provided services.

> *"We receive feedback from the community, and we see housing as the key modifiable determinant of health because it's where you spend most of your time."*

LOCAL: STRATEGIES FOR COMMUNITY ENGAGEMENT

HHDSM discussed its strategies for community engagement and including residents in their work, outside of seeing them as patients or program participants. The following section highlights HHDSM's key community engagement strategies and an important challenge. The partners believed, as a matter of practice, their strategy should be grounded in the Local principle at all times:

> *"All of our work is really local; our ability to do the work we need to do is dependent mostly on our ability to build local support among local partners with local resources … if our strategies are dependent on the decisions of people we can't really reach, then that is a precarious way to go about our work and, I think, ultimately [it] won't be successful. Public health was locally built at the ground level, [the] city level, before it was added [to the] state level and the federal level. And I don't know exactly how in our last 100+ years, all our sense of priorities [has] been reversed, in which we feel that it makes much more sense to look to the state and federal government for resources as opposed to looking in our own community … I think that is flawed strategy. Clearly life can get much*

more complicated and difficult, but our ability to do what we do is grounded in the partnerships we build in our communities and always will be."

Community Needs Assessment. The core partners interacted with the community through needs assessments processes. Specifically, every three to five years, they facilitate and convene a community planning process to identify community priorities that they will focus on moving forward. The hospital partners stated that they've done community benefit reporting and planning for over 20 years. As a best practice, they have included the local community health needs assessment in their efforts, partnering with the local public health department and other organizations.

Community Coalitions and Outreach. HHDSM relied on community organizations via the community coalition VEB to provide the first families with housing remediation and educational services. VEB is a coalition of residents, organizations, and other stakeholders from the initial target area of East Bank with the overall goal of improving their neighborhoods. Although not specific to the HHDSM initiative, VEB provided a core base for the initiation of HHDSM's work and enabled the collaborative to have a wider reach within the neighborhood. However, the main component of the process that showed continued and direct interaction with the community was via home health visits, educational activities, and outreach to families from providers.

In addition to VEB, the partners described how the local school system was instrumental in helping them connect with residents as potential recipients of HHDSM services. One specific school-based effort helped with recruitment of participants:

> *"One external community engagement opportunity that was given to us by one of our strategic partners in the community is a summer camp for children with asthma. And so we're actually going to go back to some of our families who meet the eligibility of the summer camp to see if we can get them enrolled in that opportunity .... That'll be a way for the children who've been impacted by our program to meet each other and to continue learning about living with their chronic condition."*

Challenges with Resident Participation. Yet, inevitably, the partners experienced challenges with community engagement, particularly due to unequal power dynamics and distrust. For the second BUILD cohort, HHDSM will explore whether issues of power contributed to a higher-than-expected percentage of families referred in the first cohort of BUILD that declined to participate. Due to the high proportion of people in the target community living in rental units, unequal power dynamics between renters and landlords kept renters trapped in substandard housing: "So poor people are living in, and have historically lived in, substandard housing because there isn't a necessary accountability of landlords to maintain their housing." This was compounded by the fact that tenants felt reluctant to pressure or negotiate with landlords in any way, including for improvements in housing or even asking for a lease agreement. Not having a lease agreement was especially consequential in the target population. Without a guarantee that the tenants could continue to stay in the unit after the housing improvements had been made — which a lease provides — the BUILD initiative would not make housing repairs to address modifiable factors that triggered pediatric asthma, such as mold and pests:

> *"I think that they aren't confident in their rights, they don't feel empowered. We asked for some pretty simple things in this program: get your lease extended so your landlord isn't going to raise your rent when our repairs are finished. And people don't have the confidence to bring that up with their landlords. A lot of them have never met their landlords, a lot of them don't have a lease. So they don't really know their rights at all. So there are a lot of educational opportunities there, but there is a lot of resistance too; people feel like they are not comfortable with that conversation and perhaps*

it's a power dynamic. Those are things we try to help with, but often when there's a language barrier, it presents some real problems."

As a result, partners felt residents were more reluctant to engage in the rental-landlord-specific issues for fear of retaliation. This fear of eviction or instability is what ultimately informed HHDSM's policy work in the second BUILD cohort.

HHDSM partners also acknowledged that they were different from the community in terms of racial/ethnic background, gender, and socioeconomic status. Specifically, the leadership overseeing the project was mostly white and very homogenous in terms of age and gender. As such, the people who were tasked with making decisions for the community didn't represent the community in terms of diversity, or language, which the partners described as a potential barrier for engagement and implementation of the initiative.

KEY TAKEAWAYS & LESSONS LEARNED // LOCAL

HHDSM localized its efforts to address housing environments while also expanding to the larger Des Moines urban core.

The partners demonstrated an ability to collaborate internally in various ways to execute major components of their initiative.

They sought community input during their needs assessment process and worked with a community coalition in outreach efforts to engage residents to participate in the program. However, the main decisions and process for executing HHDSM's work were retained within the partner organizations.

In assessing each site's efforts related to community engagement and participation, we used Arnstein's ladder of participation.[2] It includes eight typologies, or "rungs," with respect to participation or engagement. Each rung corresponds to the extent to which citizens/residents/community members hold power in determining the end result or goal. Table 2 (see next page) describes each rung of the ladder.

For HHDSM, the community was more likely to be informed of decisions rather than have consultative power regarding the direction of the project. While the partners sought input from the community about public health initiatives, there was little to no community representation in the leadership of their initiative. This level of community participation is consistent with "consultation," which is defined as informing the community about initiatives and seeking community input but not including the community in the decision-making process.

2 Arnstein, Sherry R. A ladder of citizen participation. JAIP, Vol 35(4): 216-224; July 1969.

RESIDENT/CITIZEN (LEARNER) CONTROL

DELEGATED POWER

PARTNERSHIP

PLACATION

CONSULTATION

INFORMING

DECORATION

MANIPULATION

LEVEL OF ENGAGEMENT	TYPE OF PARTICIPATION	DESCRIPTION
Nonparticipation	Manipulation	Directed by staff and tend not to be informed of issues. May be asked to "rubberstamp" decisions already taken by staff.
	Decoration	May be indirectly involved in decisions or campaigns but are not fully aware of their rights, their possible involvement, or how decisions might affect them.
	Informing	Informed of actions and changes, but their views are not actively sought.
Tokenism	Consultation	Fully informed and encouraged to express their opinions but have little or no impact on outcomes.
	Placation	Consulted and informed. Views are listened to in order to inform the decision-making process but does not guarantee changes.
	Partnership	Consulted and informed in decision-making processes. Outcomes are a result of negotiations between organizations/staff and community/residents.
Learner Empowerment	Delegated Power	Organization/staff inform agenda for action, but community/residents have responsibility for managing aspects or all of any initiatives/programs. Decisions are shared.
	Resident/Citizen (Learner) Control	Community/residents initiate agendas and have responsibility and power for management of issues and to bring about change. Power is delegated to community/residents, and they are active in designing their education.

Table 2: The Ladder of Participation

The health department partner agreed with this assessment, admitting that they had not really done as much as was possible concerning community engagement but that it was not because they didn't believe it to be important. Rather, they wanted to ensure that their efforts were effective and genuine. The majority of community engagement efforts were led by VEB before the intervention started, and that work led HHDSM to address issues of housing and health. As such, the partners hope to be more intentional about community engagement moving forward.

One of the other partners shared that the idea of strengthening the relationship with the community is an area that they would like to improve upon.

A BUILD site team lead shares ideas for how to foster systems change.

> *"I struggle with this piece, and it's something that we talk about a lot with the community health worker. I would love to see the participants one day being a part of something bigger … like a group of people who are advocates for the program. We don't have those sort of resources right now, and I don't even know that there's interest."*

HHDSM's community engagement can be improved through receiving technical assistance (TA) from BUILD to educate partners about key concepts on community engagement and various ways to engage the community. This could also include peer-to-peer educational opportunities. TA would raise awareness on levels of community engagement that can range from no engagement, to tokenism, to full engagement.

An important practice for this site could include hiring community residents in a decision-making capacity for their BUILD initiative. Moving forward, these partners could develop a strategic plan that includes best practices related to community engagement.

DATA-DRIVEN

The Data-Driven principle elevates the "use of data from both clinical and community sources as a tool to identify key needs, measure meaningful changes, and facilitate transparency among stakeholders to generate actionable insights."

The HHDSM initiative used shared data in three ways: to unify their partners, to inform and develop the initiative activities, and to measure impact and return on investment (ROI).

The HHDSM partners relied on data from the early planning stages of their work, using data for a variety of purposes ranging from identifying target neighborhoods to designing the interventions. Local hospital and housing data, combined with national research on the connections between housing and asthma, shaped various aspects of their program.

The primary goals of their data collection efforts were:

1. To provide evidence to demonstrate that their intervention could reduce healthcare utilization (e.g., ER visits), the incidence of asthma exacerbations, and health-related costs
2. To improve services and identify gaps in services
3. To develop a user-friendly database Referral System and Data Integration

A key to HHDSM's success was its efforts to integrate data throughout the program. Data integration was important in identifying the areas of focus as well as informing how the program may be adapted, modified, or expanded. The referral data system was critical in integrating not only the overall referral process from multiple partners but also the data that resulted. This system allowed doctors, providers, and hospitals to make direct referrals and to track the patients' clinical services as well as the nonclinical services they received through the home intervention, such as remediation and asthma education.

Following this, those having access to the database would be able to get follow-up information 6 to 24 months from point of contact — information that would be used to make a sustainability argument for ROI. Additionally, this system cut down on communication issues because various partners, including those providing asthma education, performing inspections, and conducting repairs, could input, access, and analyze data all in one place that "lives in the cloud." The partner continued to explain:

> *"All of that information will be in this particular program. One of the reasons that we did it that way was not only for a project management system, but so the physicians could go back and see that, for example, six months ago we put a new roof on the house, mitigated some mold, took up carpeting, and put in hardwood flooring. Things like that."*

Given that this was an accessible, integrated data system with multiple users, concerns of data protection arose. Specifically with respect to protected health information: "HIPAA is there to provide protections, but it's not necessarily there to … prohibit access to the data. It's just you have to access it properly, and you have to get the appropriate releases, whether those are patient releases or whether those are IRB releases." The partners are working closely with hospital compliance staff to make sure that they adhere to the appropriate protocols. They started this process of addressing this concern with the use of an Institutional Review Board (IRB) and planned to replicate the process and best practices at all of the partner hospitals.

DATA MANAGEMENT, COLLECTION, AND SHARING ACROSS PARTNERS

Data Management

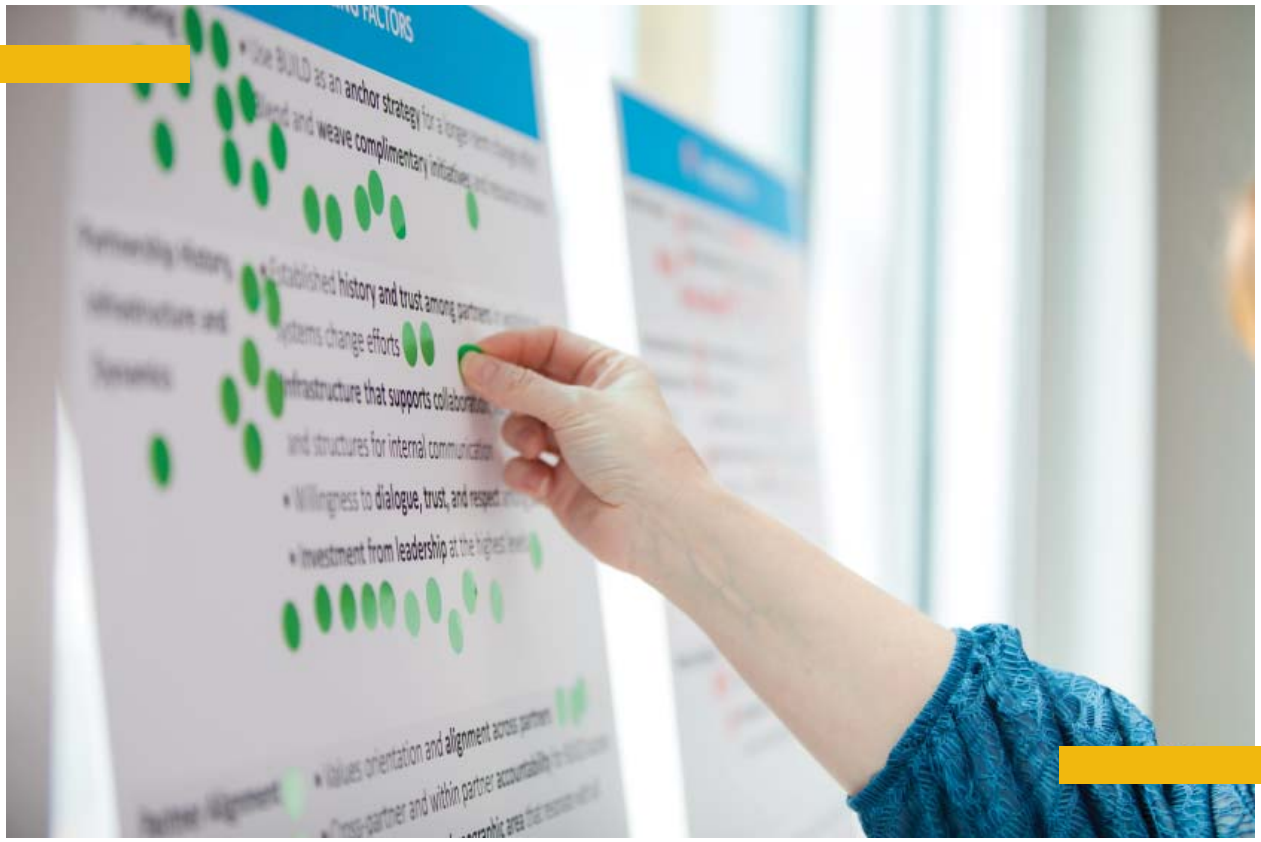
The partners developed a data management system for data sharing and collaboration among its partners, including all three hospitals. This system combined health, housing, and education data to track progress and evaluate the project's success. This data system was intended to influence the development and enhancement of services rendered through the BUILD initiative. The system had varying levels of access privileges depending on the user's role in the project.

Additionally, the program evaluator was responsible for producing reports and aiding with the interpretation of the data. All core partners and additional BUILD partners, such as CHWs and home inspectors, were responsible for collecting data for their specific components of the project. For example, the visiting nurse organization collected and tracked data during home visits, and schools and hospitals tracked their referrals. Ultimately, the partners wanted to develop a system that would allow them to access and report through one system, rather than using the multiple systems they started with. The CBO was responsible for data management, but data analysis was done collectively.

The data system made it easier to enter, access, and organize the data for generating reports that were tailored to various audiences. It also allowed HHDSM to analyze variables like visits to the ER and urgent care, prescription adherence, and the intervention reports in patient charts. The hospital partner in particular worked with the IRB to address the HIPAA-related concerns with tracking patient data. One of the goals was to share data with the public while still protecting patient records. Through anonymous data on a public dashboard, the project's progress was visually displayed on social media and in health marketing campaigns to increase asthma awareness and the work of this BUILD initiative.

Data Sharing

Prior to developing data-sharing agreements, partners were engaged in an iterative process of negotiating how their shared database would be developed. Partners met frequently (about every



two to three weeks) to talk about the process and implementation of collecting, sharing, and using data. Another partner reported on the sharing of patient data among three hospitals involved in the BUILD initiative. The partner shared:

> *"... All the folks around the table were my counterparts in the other hospitals. We had a very cordial discussion about what it was we really needed to think about and what we needed to ask for. And then we needed to work with our data folks to accomodate those needs. So I think we took a difficult challenge and a vague ask, and we were able to get some very specific, helpful data that helped us out."*

The data use agreements were based on similar agreements some of the partners had created for previous projects. Lawyers reviewed these agreements, and, to alleviate some of the data sharing HIPAA concerns, "each of the participant families sign[ed] a very, very broad waiver that specifically allowed the sharing of information amongst the participants and the intervention."

Data Collection

Through a series of four surveys, hospital and administrative quantitative and qualitative data was collected. Community partners also collected data on pre- and post-intervention measures of healthcare utilization and asthma symptoms. There were six main components to their overall data system:

1. ***Demographic survey:*** One of the community partners reviewed information on demographic characteristics and the medical provider, followed by a 10-minute phone call to assess the needs of the family.
2. ***Face-to-face interview:*** CHWs interviewed the family about any history of asthma, assessed their knowledge about asthma and its triggers, and provided asthma education as needed. These metrics included:
    - Demographics/other characteristics of the family recruited
    - Demographics/other characteristics of the family that are missed in the outreach

The site also recognized the need to collect qualitative data to capture the experiences of the families, as well.

3. ***Home inspection:*** The home inspector looked for household asthma triggers, such as black mold and pests, and took photographs of the physical evidence of such triggers. The key metrics from the data from the community partners that rendered these services included:
    - Housing conditions
    - Presence of environmental hazards (air quality, mold/mildew, lead levels, radon levels)
    - Household triggers of asthma (before and after home remediation)
    - Environmental triggers (e.g. pests, presence of toxic household cleaners)
    - Resource of referral by type of organization
    - Type of repairs completed
    - Families lost to follow-up after the intervention
4. ***Two-month follow-up survey:*** Conducted two months after home intervention services were provided, this survey examined whether there had been a decrease in asthma symptoms and an increase in knowledge about the daily management of asthma.
5. ***Hospital and medical record data:*** Health and outcome data was also collected on various health outcomes from surveys, healthcare providers, medical records, and hospitals, including a federally qualified health center (FQHC), only to the extent that the patient gave this information to HHDSM. The following key metrics were collected:
    - Medical history
    - Asthma diagnosis
    - Asthma symptoms and severity*
    - Missed school days by child/ missed workdays by parent
    - Healthcare utilization — frequency and type (e.g., urgent care visits, ER visits, hospitalization)
    - Zip codes for areas where there are disproportionately higher rates of healthcare utilization
6. ***Financial data:*** Data on financial costs was obtained from home remediation providers, healthcare providers, and hospital and health systems, including an FQHC. The key metrics included:
    - Home remediation costs
    - Home prices
    - Healthcare costs

*Asthma symptoms data: In addition to the medical record data, children recorded their asthma symptoms every day using

a symptom chart that could be easily transported and mounted on a wall or a refrigerator. One partner expounded on the collection of symptom data:

> *"The symptom chart easily just velcros off, if the child were to go to Grandma's for the weekend or something like that. And so they have the seven questions that make up the 'asthma symptoms test'. And we ask the family to go through with their child and fill it out every day. You know, putting a sad face or a happy face on the chart or put a check next to a symptom that was an issue that day. That way we can keep track of improvement, hopefully."*

USING DATA TO INFORM AND DEVELOP THE INITIATIVE

Partners were asked to reflect on how the data they collected helped inform solutions and the strategic direction of the intervention. As such, data helped HHDSM:

- Identify key issues or problems in housing and rental policy, which then led to the involvement of legal aid and work being implemented in the second BUILD cohort
- Identify what processes are working well and where changes may be necessary
- Inform budget priorities
- Inform program planning processes
- Identify issues unrelated to the BUILD initiative
- Demonstrate project impact

The hospital partner in particular led the strategy on how to use data to inform solutions:

> *"Our role is partially matching some of the fund required for the grant. The other thing that our organization does is work with the management team to help make decisions, review strategies, think about how we want to look at data, what data we want to start to gather."*

Data on housing and home remediation was instrumental in identifying deficiencies in the rental property policy of the city. One partner reflected on the questions asked following home inspections:

> *"You know what, we're doing the same work in all of the homes, and we're doing the same work in all these rental units. Why aren't these issues addressed in the inspection the city requires? Why aren't they included in the requirement for rental certificates? Why isn't there a policy rather than simply doing it home by home?"*

Additionally, financial data informed the decision-making process regarding the budget. For example, one partner gave an example of data used in decisions about home remediation conducted by home contractors, explaining the cost benefit and reflecting, "is it better for us to work with them and find them some other type of housing that might be a little less expensive or a little bit better cost value for them [than the actual cost of the remediation and repairs]?" Financial data was also required to means test all referrals as resources for remediation and repair are restricted to households earning less than 80% of the area median income.

In program planning, data was used to evaluate the eligibility criteria. One example was the assessment of the age eligibility for the intervention to determine if the effort should be expanded to include children in a wider age range. Another example was geographic eligibility. Based on geospatial data, the partnership determined that it was better to expand the target region zip code by zip code than to expand eligibility citywide without regard for the zip codes.

The data also helped to identify the problem areas that were unrelated to HHDSM as well as potential target housing in future planning for their initiative. One partner described some of the opportunities that were uncovered during the intervention and data collection:

> ***"We want to be able to identify trends in the household environments of the families that we serve. And possibly for two reasons: Identifying perhaps a formula, perhaps a way to predict, you know, what houses may be problems for kids before they actually are. And also just to kind of see what the problem areas are in our neighborhood that we could have our partnering agencies investing in…"***

Finally, once the intervention was operational, the project evaluator began collecting data to assist the group in understanding whether their collective impact approach is working and where changes or further development may be necessary.

DATA: PROJECT IMPACT AND ROI

Data was also used to demonstrate project impact (e.g., cost analysis, health outcomes) and to streamline the referral process. ROI for the initiative was evaluated by comparing the costs for home remediation (the intervention) to costs for healthcare utilization (Medicaid reimbursement). One partner gave an example of the type of questions answered through an ROI assessment:

DID YOU KNOW?

ROIs are a business term applied to health interventions to demonstrate how much money can be saved per dollar spent on a health intervention. One estimate of lead remediation in housing suggests that each dollar invested in remediation can result in a return of $17-$221 in savings.

> *"We have data that we collected in developing the application about what it costs, you know, to treat a child in the emergency room for an asthma visit … so we have some of the traditional treatment costs from a clinical side. Clearly, one of the things we want to do is then compare the costs of the housing intervention with the savings from an emergency room visit."*

The partners acknowledged the complexities in trying to adequately capture and evaluate ROI. They worked with a small sample size and also realized the varied levels and types of intervention for each individual and/or family, such as education, housing mitigation, and other services. They shared:

> *"The next hurdle for all of us is [determining] the data that we as a community or as an initiative can use to evaluate the program either in terms of a financial return on investment or in terms of quality of a family's life. The data is available and I think that we can provide data to each of the hospitals so they can do their own return on investment. They can figure out and compare how many times that a child has needed either clinic care or emergency room care. The challenge is at this point in time, they can't share that with the whole group. Those are the kinds of things we're working through. The pieces are there; it's just a matter of getting through those hurdles where either the hospitals can then in turn share what they already know or will know over a course of time about the progress of a child. Or what the school district knows or will know about that child's absences in the next 12 months."*

HHDSM also commissioned its partners via the Child and Family Policy Center to conduct additional evaluation work, which included specific metrics related to ROI.

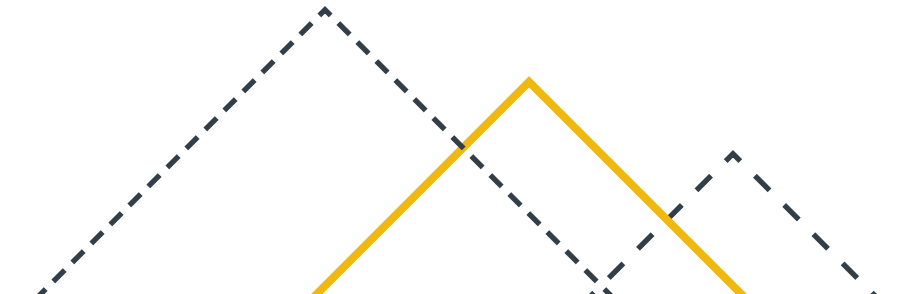
KEY TAKEAWAYS & LESSONS LEARNED // DATA

HHDSM worked to develop a system that could streamline data use and sharing across sectors in order to provide stakeholders at every level — from the healthcare provider to the home inspector to the CHW — a full picture of how the intervention is working.

The greatest challenge was developing a user-friendly data management system that also addressed HIPAA concerns, as well as finding a way for all partners to be on the same page with respect to data.

Some community partners were novices in data collection processes, while others expressed concerns about protecting patient confidentiality. As such, the partners developed an integrated, comprehensive data management system that allowed healthcare providers to be able to collect, use, and share data from both clinical and nonclinical aspects of the intervention. This system allowed the partners to inform many of the solutions and strategies to reduce pediatric asthma hospitalizations, including identifying policy changes, developing internal decision-making processes, and demonstrating project impact.

Overall, HHDSM's data-driven process integrated multiple data sources of key upstream factors in order to achieve the initiative's goals.



HEALTH EQUITY

A BUILD goal was to address health disparities — that is, reduce differences in core health outcomes — caused by systems-based or social inequity.

Furthermore, there was no requirement for sites to address health equity, although many sites saw this as an opportunity to further develop their equity-based work. BUILD is learning from its efforts as sites develop their plans and progress toward achieving health equity.

The HHDSM initiative's commitment to health equity can be understood by examining three of its practices and values:

1. The methods used and information gathered
2. Definition and shared vision for health equity
3. R4P overview and description of domains; a framework described below, R4P was used as a tool for understanding the various components of HHDSM's work with respect to health equity

PROCESS FOR UNDERSTANDING SITES' APPROACH TO HEALTH EQUITY

During the application process, sites were asked to describe the health disparity issues affecting their communities. The HHDSM partners participated in individual interviews and a follow-up group interview and completed a self-assessment tool related to equity in order to give the researchers an understanding of the partners' grasp of the principle and the ways in which they instituted it throughout their initiative. Each component was designed to uncover how they defined and approached health equity using a framework called R4P.

The Hogan and Rowley R4P Framework (2010) is a theory of change for designing an equity approach to reversing the unfair, avoidable consequences of inequity. This framework was used to query partners about the ways in which they may attempt to achieve equity though the five domains of R4P:

1. Repair past or historical damage/harm/setbacks;
2. Remediate, or reduce the impact of existing stressors that diminish outcome goals;
3. Restructure policies, procedures, job descriptions, meeting agendas, and other institutional structures to remove the production and sources of inequity;
4. Remove the institutional sources and vestiges of racism, classism, sexism, and other "isms"; and

5. Provide culturally and socioeconomically relevant health/education/clinical services to all populations so that they can achieve equity in outcomes, and further provide structural supports to ensure that all populations have the tools and resources to carry out educational/clinical recommendations.

The self-assessment portion of the health equity interview was designed to guide partners in reflecting on their BUILD project and their organization with respect to health equity based on the Brooks Equity Typology©.

DID YOU KNOW?

Health Equity: Attainment of the highest level of health for all people. Health Equity means efforts to ensure that all people have full and equal access to opportunities that enable them to lead healthy lives.

DEFINITION AND SHARED VISION FOR HEALTH EQUITY

While the HHDSM partners had not explicitly discussed health equity as a group or as a core component of their work, they articulated the ways in which it was or was not demonstrated in their initiative. As one partner stated, health equity is the "idea that everyone has an equal footing regardless of where they are in their community in terms of race, economic status, culture, whatever. Equal footing to access to care, opportunity to health, you know, just the ability to have an equal opportunity to a healthy lifestyle." Another partner stated that health equity was not a term the site partners used often and described an approach that included individual behavior change and systems-level change in order to achieve health equity: "I think we can help achieve health equity in our program by providing education and influencing policy." The health department partner shared that conversations on health equity were common in the organization and "built into the work we do... Addressing disparities in our communities is one of the elements of our mission statement, so it's part of the conversation we have every day."

The HHDSM partners did not have or use a specific model or methodology to achieve health equity. However, partners felt that their initiative essentially worked towards achieving health equity because of its focus on addressing upstream factors:

> *"Had we ever had an agenda item that said what are we going to do about health equity? The answer is no, but have we begun to have conversations that go along the lines of 'what are the conditions that we might be able to address that are contributing to some of our most vulnerable families' lives being more complicated than [they] need to be?' Yeah. I mean we talk about it all the time. We don't necessarily put a name on it. We have spent a lot*

of time talking about the disparities and inequities and unfairness [for] low-income families, particularly low-income families of color that are living in rental housing. ”

> *“We went through a conversation around who we wanted to reach and what impact we wanted to make on those lives. And sort of implicit in the back of all of our minds is we need to identify the kids who are having the hardest time living in the worst neighborhoods. Now, explicitly that’s an equity question. But did we deal with that overtly in developing that vision? No. What we agreed on was the shared vision — what issue we wanted to impact and how we wanted to impact it and where we wanted to impact it.* ”

Partners were asked to engage in a conversation on whether the BUILD project enhanced their understanding of health equity. They were then asked to speak in more detail about how they worked — both together across organizations, as well as within their organizations, to develop a shared vision around their health equity goals. While interviews have not generated any new conversations between partners around health equity, there was heightened awareness within the hospital leadership:

> *“One thing that BUILD has done, internally for our organization, is giv[e] some of our senior leadership a tangible concept with which to connect the idea of health equity …. And [that] is doing a pretty good job of paving the way in the future for more of this work.* ”

Another partner shared that the BUILD project really helped all stakeholders have a better appreciation and understanding of the impact of housing disparities on health outcomes.

R4P OVERVIEW AND DESCRIPTION OF DOMAINS

The following describes the ways in which HHDSM addressed each of the R4P domains, as outlined earlier.

Repair

We asked partners to describe the historical forms of marginalization and oppression experienced by the local community and how the BUILD initiative attempts to repair or address these past injustices. Partners shared in detail how the historical disinvestment in the local community resulted in marginalization and mistrust of the government (as mentioned

in the "Local" section of this case study). Yet, despite this acknowledgment, partners were not universally confident that their BUILD initiative worked to repair any of that damage. Several partners reported the initiative did not attempt to Repair since the project currently focuses on service delivery. One partner explained that the initiative focused on dealing with immediate consequences like "the very specific living conditions the families are confronting that [are] contributing to more frequent visits to the ER and doctors' visits for the child for the asthma."

Remediate and Restructure

The second and third components of the R4P framework are Remediate and Restructure. Partners were asked to discuss current or existing local policies or practices that may have a negative impact on the local community and the ways in which their BUILD initiative may help remediate or reduce the impact of these detrimental policies or practices. In addition, BUILD partners also discussed ways in which they attempted to actually change or restructure institutional, organizational, or administrative policies and procedures that systematically exclude certain population segments or have a negative influence on the community.

There were variations in the responses to the question of remediation. One partner stated the initiative does not Remediate, while the other two partners spoke of efforts to work with the city toward policy-level change in housing codes, one way in which the Remediate and Restructure domains intersect. At the time of this interview, HHDSM had provided some suggested modifications to the housing code to the city planning department, and BUILD partners were awaiting approval in public meetings. Key suggested modifications included using Integrated Pest Management (IPM) methods to ensure dwellings are safe, as well as having inspectors who are certified in IPM conduct home inspections. Here, one partner discusses housing code changes that would provide greater protection for renters:

> *"Right now, it is only [for] the families we can identify and whose homes we inspect that we will flag those housing violations... Everybody else who is not part of the program for a variety of reasons was living with those hazards and really has no remedy to correct the hazards if they can't pay for them. However, if the hazards were prohibited as a matter of code, then there are more options and more leverage points to get the hazards eliminated."*

Remove

The domain of Remove was focused on the ways in which BUILD sites identify and remove institutional forms of racism, classism, sexism, heterosexism, and other direct forms of exclusion.

Two partners stated that the initiative did not identify or remove any institutional forms of exclusion. A third partner discussed that, by working on the initiative, their organization has become more aware of the "isms" and realized it must address them — "otherwise, we're just not going to be successful with what we do."

Provide

The final domain, Provide, identified ways in which the partners assessed and incorporated the unique needs of the community when providing services for their initiative. Although not intentionally addressing health equity, there were several ways their BUILD initiative addresses the domain of Provide through inclusive and culturally sensitive service delivery. The hospital partner utilized a visiting nurse organization that had "a very, very robust and extensive group of care coordinators with a wide variety of cultural backgrounds as well as a lot of variation in the types of interpretive resources and language resources that they can bring." Additional ways the initiative provided interpretive resources, helping to overcome language barriers, included the following:

The hospital clinic in the target community hired a higher proportion of bilingual providers and care coordinators to meet the needs of the neighborhood.

Housing and public works inspectors were accompanied by translators to communicate to renters the purpose of the inspectors' presence in their homes.

THOUGHTS ABOUT APPLICATION OF R4P MOVING FORWARD

Although the public health department partner was unsure how the R4P framework could be incorporated into the project, they noted that the framework "is a helpful tool and there ought to be ways we can use this for our own internal conversations because it is part of what we are trying to do. And particularly, the separation of the different levels of how inequities are removed [and how that] is different from them being addressed … [the] distinctions are helpful."

One partner felt it would be helpful to have a process for applying the framework:

> *"I'm curious as to how the application of this will really be rolled out, as a domain or as each part of the framework? I'm wondering if there's a way that can really help a community collaborative or an individual use this in a flowing process without making it too constrictive or too academic. Is there a way that this all kind of flows and becomes a very user-friendly framework for a collaborative?"*

CHARACTERISTIC EQUITY APPROACHES[3]	DESCRIPTION
Institutionalized-Equity Approach	Builds organizational structure from outset to consider equity in all policies, practices, procedures.
Equity-Add-On Approach	Engages in post hoc actions to graft equity considerations and approaches onto existing (usually non-equity-supporting) institutional frameworks.
Cultural-Matching Approach	Focuses on developing, implementing, and disseminating approaches, usually limited to education and care, that match historical, cultural, and social needs and desires of populations of color.
Diversity Approach	Focuses on including a more diverse workforce. While organization hires more people of color, it usually does not give them power or resources.
Missionary Approach	Provides evidence-based practice in traditional ways, targeted specifically to people of color, usually delivered by people of different ethnicity than population served.
"Raise-All-Boats" Approach	Focuses on improving systems of care for outcomes, with the expectation that improved systems will automatically impact all population groups and achieve equity.
Selective Approach	Chooses a population or inequity to address as sole programmatic focus, (e.g., income inequality but not racial inequities; Latinas but not African Americans).
Concerned, Non-Action Approach	Knows that inequities exist, but does not know how to incorporate equity into programmatic actions.
Low-Awareness Approach	Conducts professional work in absence of recognition or consideration of need to address inequities.

Table 3: Characteristic Equity Approaches

The HHDSM partners also were interested in delving deeper into health equity frameworks and making health equity a more explicit priority moving forward. None of the partners were familiar with the R4P framework, although the concepts were familiar to the public health department and hospital partners. After reading the framework, the hospital partner felt the concepts intuitively made sense and that the framework could help them become more intentional about their work with respect to health equity:

> ***"These are things that our BUILD collaborative and a lot of the collaboratives that I've worked with in our community have worked with and thought about. But I don't know that we've ever thought about it in this formal of a structure. Now***

3 Hogan V., Rowley D.L., White S.B., & Faustin Y. (2018). Dimensionality and R4P: A Health Equity Framework for Research Planning and Evaluation in African American Populations. MCHJ, 22, 147–153.

maybe we probably should have; then we could have been a little more intentional and maybe it could have helped structure our work. ”

Partners were asked to share whether they had any plans to incorporate health equity in future work. They shared that they planned to do so by continuing to seek changes around housing code:

“ *Two things: First, our goal in terms of protecting tenants in their individual relationships with landlords. The focus is to alter the power imbalance that exists between landlords and tenants. It may not be on a systemic level, but it's clearly on an individual level that in a dynamic in which one party has all the power and the other party has zero power then inequities are a natural byproduct. So I think our efforts to sort of alleviate some of that power imbalances goes towards addressing the inequities. Second involves seeking ways we can change housing code policy, with a similar goal of changing policy to put in law protections that many of our more vulnerable families would never be able to negotiate by themselves without changes in the law.* ”

ASSESSING EQUITY CAPACITY

Based on Characteristic Equity Approaches developed by Hogan et al. (see Table 3 on previous page), HHDSM falls into several categories. One category that applies is the Cultural-Matching Approach, which “focuses on developing, implementing, and disseminating approaches, usually limited to education and care, that match historical, cultural, and social needs and desires” of the marginalized population. The initiative had a core educational component and provided translators that accompanied home inspectors as well as care coordinators with a variety of cultural and linguistic backgrounds.

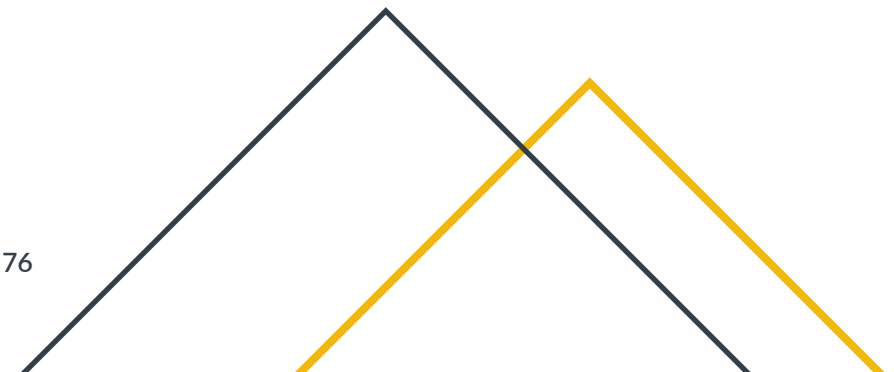
Another applicable category is the “Raise-All-Boats” Approach, which “focuses on improving systems of care for specific outcomes [(e.g., asthma)], with the expectation that improved systems will automatically impact all population groups and achieve equity.” The initiative worked to improve rental code that provided a health benefit to all families in the city and not just the target community.

KEY TAKEAWAYS & LESSONS LEARNED // HEALTH EQUITY

When asked whether health equity comes to the forefront when thinking of BUILD, all partners agreed that it did not.

That said, the partners believed that equity was inherently a core, foundational part of their intervention and expressed strong interest in incorporating it as a more explicit element as they moved on to the second cohort of BUILD.

A deeper dive into the principle might include, but not be limited to having intentional conversations within the partnership about how to address health equity and reaching consensus on the best process to achieve it.



ADDITIONAL LEARNINGS

In addition to the key learnings described previously, there were also other insights generated from the various interviews that sites may choose to consider:

1. Involve community members early in the process.

2. Offer BUILD awardees TA opportunities specific to their project.

Reflecting on their own community engagement processes and where there had been room for improvement, one partner recommended involving community members from the initiative's inception. They acknowledged the difficulty in doing so, however, stating that it was hard to coordinate several families' schedules and that meetings could be an added burden for families that already have work and family obligations.

Partners were also asked to speak about the TA opportunities that they might find useful as they continued their sustainability work. The CBO partner spoke about how they'd like to have opportunities to "find better or at least best practices for things like rental codes, landlord-tenant laws, things that are out there that we can talk to folks [about] from a policy standpoint without having to reinvent the wheel." The health department partner stated that they would like help to identify "creative ways of raising money."

Additionally, the partner explained that because they have come this far with minimal resident engagement, they really think it would be beneficial to learn how to create a space that allows for significant/meaningful resident participation moving forward. The hospital partner felt that it would be helpful to have an opportunity to dive deep into analytics and explore ROI in this area. The partner continued to explain:

> *"We're a coalition of folks that have some very, very diverse backgrounds in what we do. It was even very difficult for us as the three hospitals to get together and identify what we would want to look at for outcomes in a chart audit that would be fairly consistent. And that was with folks that have very, very limited research background taking a look at this. We've been able to hire some external evaluators that have looked for more outcomes and return on investment, finding how to do/track these in meaningful ways. And I think that's something that would be helpful to our group."*

CONCLUSION & NEXT STEPS

The HHDSM partners spoke about the long-term systemic change that BUILD helped to achieve.

Specifically, they spoke about how they believed they were successful in establishing a presence and credibility in the community and in building a case for looking at housing as a cost-effective medical remedy for asthma.

They described how their work "laid the groundwork for a broader conversation around what other illnesses, what other health conditions in addition to asthma really have a nonclinical remedy."

Key players in the sustainability efforts for HHDSM are the original core partners: the CBO, the hospitals/health systems, and the local health department. They explained that their long-range sustainability plan involves engaging third-party funders because "education and remediation for pediatric asthma is going to [be] truly sustainable in the long run if the cost of it is treated no differently than the cost of treatment." The hospital partner spoke of how the project really pushed the partnership and greater community to appreciate the impact of housing conditions on health outcomes. They explained:

> *"I think one of the bigger outcomes is the ability to demonstrate across the board to community members, to healthcare administrators, how interconnected so much of the work that we do is in the health of people. Again, the idea that by just identifying one kid with asthma, looking at their house and what we can change in the environment, and then what that does... this can change all the other environments for the people that are living there, for the neighbors, for the community. The other thing is starting to show the power of upstream investments. Especially investing in health issues and trying to mitigate them before they come down the pike. So I think those are probably two of the biggest things."*

What really helped to facilitate these outcomes, they explained, was getting feedback from providers and then validation from the families that the intervention is actually working. Members

shared that they will continue working with their partners and that they were also working to strengthen relationships with new partners, such as the American Academy of Pediatrics, in order "to broaden the discussion and number of stakeholders who can see the connection between housing and health outcomes." Another partner looking to deepen its involvement is the national organization Rebuilding Together, which hopes to expand the scope of issues addressed beyond environmental asthma.

HHDSM submitted a proposal to advance its initiative for the the second BUILD cohort and has been selected to continue this work as part of BUILD.

FINAL THOUGHTS

The BUILD award offered HHDSM an opportunity to develop creative, bold, and upstream solutions to address the high rate of pediatric asthma incidence.

In two years, HHDSM members built a cross-sector, interdisciplinary, and integrated partnership that has successfully begun to address housing as an upstream factor that extends beyond healthcare and individual behavior. As such, HHDSM's work is attempting to create systemic change, which has laid the foundation as they prepare to participate in the second BUILD cohort.

Through their experience with the first cohort of BUILD, the partners were able to demonstrate feasibility with the implementation of their housing initiatives. As they transition to the second cohort of BUILD, policy and advocacy will be critical to sustaining and expanding their efforts. Perhaps the greatest success of HHDSM's BUILD initiative lies in its integrated data systems and sustainability efforts in advocating for managed care organizations to be a critical component in continuing the work.

APPENDIX A

ABOUT BUILD

BUILD seeks to contribute to the creation of a new norm in the U.S., one that puts multisector, community-driven partnerships at the center of health in order to reduce health disparities caused by system-based or social inequity.

Awardees include community based organizations, local health departments, and hospitals and health systems that developed partnerships to apply the BUILD principles.

To date, BUILD has supported 37 projects in 21 states and Washington, DC.

BUILD AWARDS

Eighteen community partnerships from across the country focused on a wide variety of upstream factors and became part of the first BUILD cohort of community awardees from 2015 to 2017.

Each community collaborative served as a pilot program to address root causes of disease (also commonly referred to as the social determinants of health) in their local area by leveraging multisector partnerships.

Seven implementation awardees received $250,000, technical assistance, and individual support over two years to strengthen existing partnerships, accelerate more advanced health data and analytics initiatives, and expand their impact. Eleven planning awardees received $75,000 and technical assistance to kick-start still-nascent projects addressing specific health challenges with a committed group of community partners. Ten of the planning awardees went on to receive implementation awards and funding to continue their efforts.

The partnering hospitals and health system(s) in each implementation award have also committed a 1:1 match with financial and in-kind support to advance the partnership's goals.

To learn more about BUILD, please visit buildhealthchallenge.org.

BUILD HEALTH CHALLENGE SITES

PORTLAND, OR

BUILDing Health and Equity in East Portland

Expanding access to affordable housing, green space, and healthy food

SEATTLE, WA

Seattle Chinatown-International District

Improving economic development, housing, and safety

DES MOINES, IA

Healthy Homes Des Moines

Reducing pediatric asthma through home improvements and education

OAKLAND, CA

San Pablo Area Revitalization Collaborative

Revitalizing local businesses and expanding affordable housing

ONTARIO, CA

The Healthy Ontario Initiative

Developing "health hubs" to foster strong bodies and communities

LOS ANGELES, CA

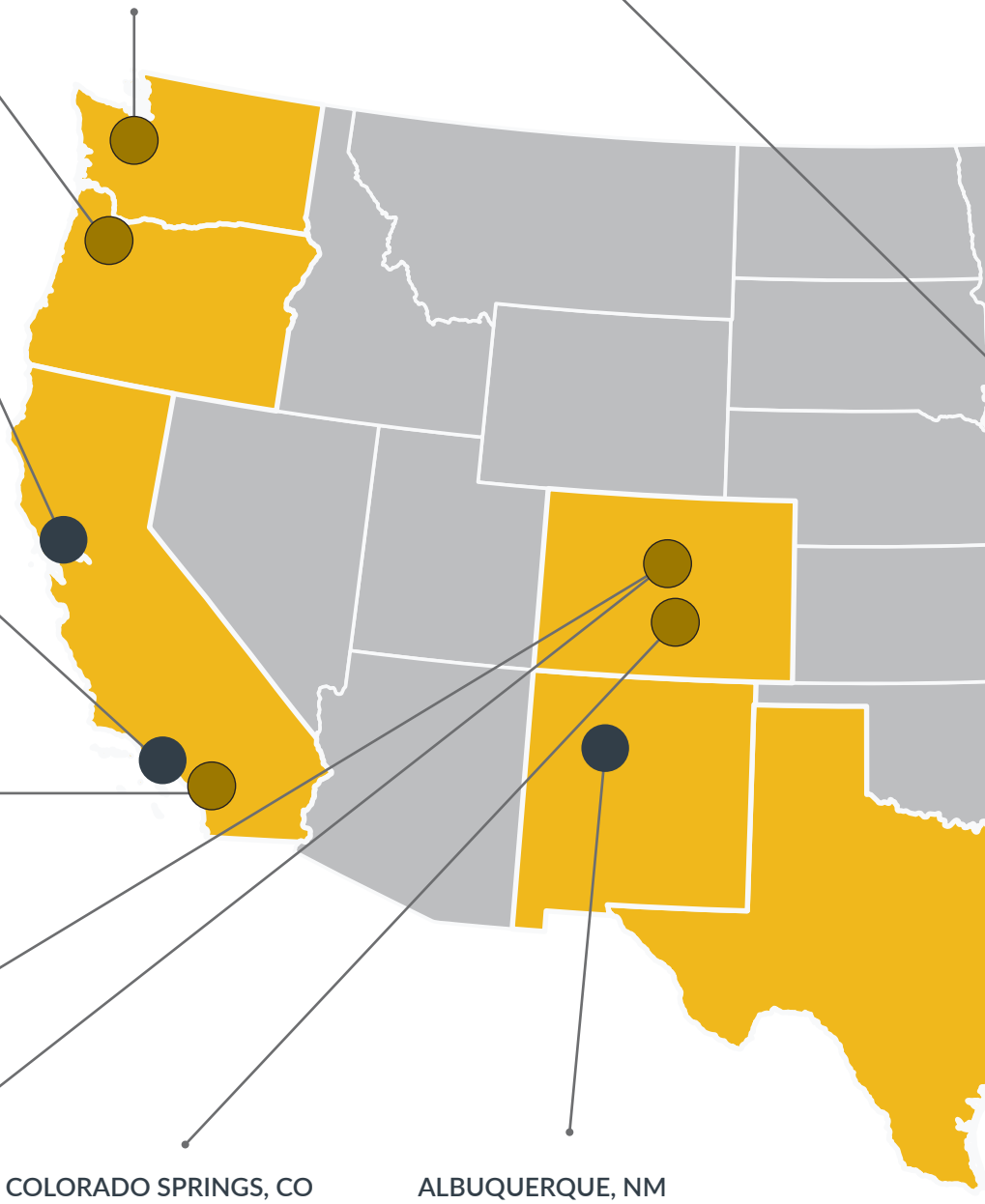
Youth-Driven Healthy South Los Angeles

Mobilizing youth ambassadors to advance community wellness

DENVER, CO

East5ide Unified

Creating safer, healthier communities for children



AURORA, CO

Increasing Access to Behavioral Health Screening and Support in Aurora

Eliminating health disparities by age five

COLORADO SPRINGS, CO

Project ACCESS

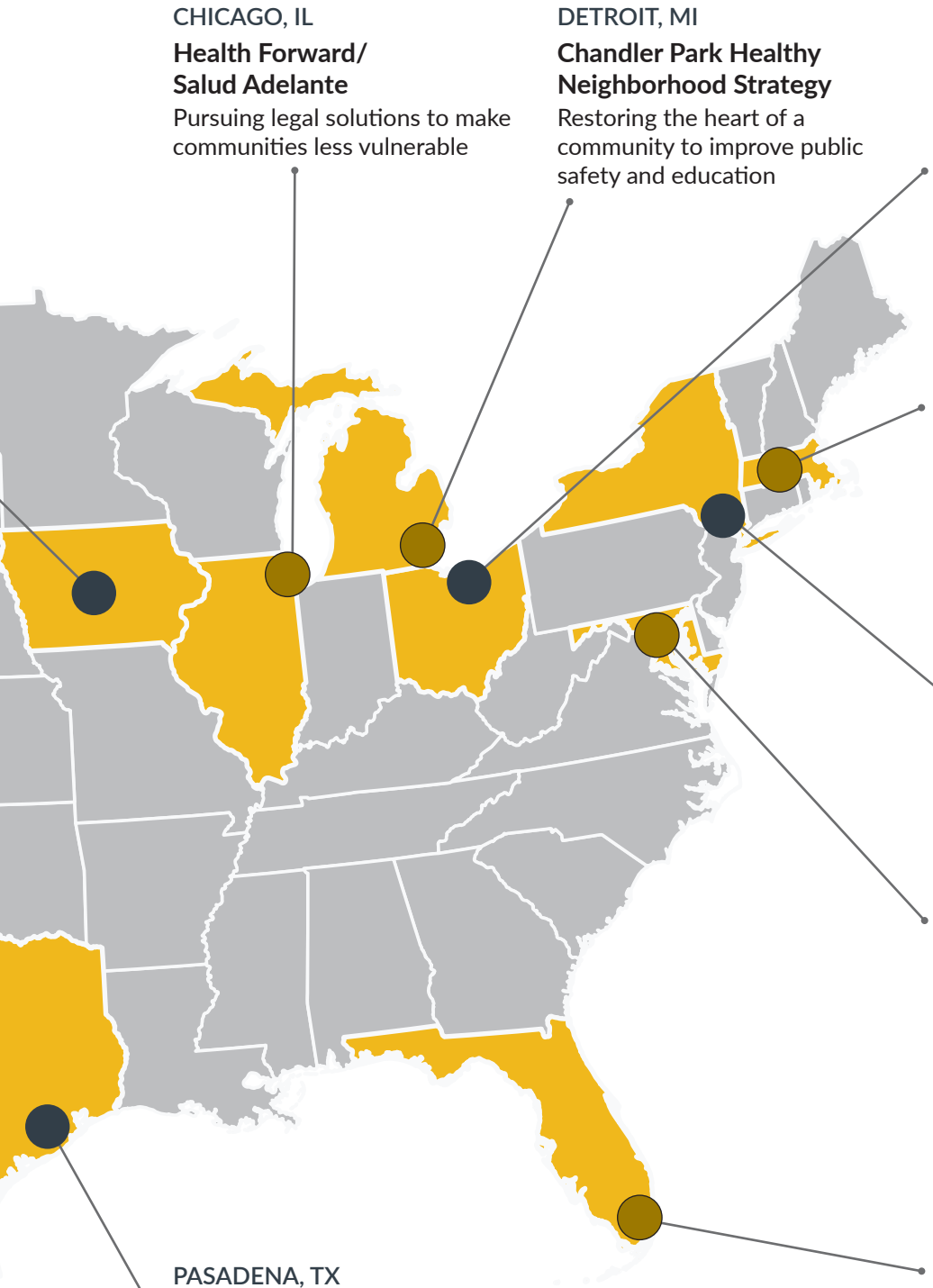
Preventing neighborhood violence by engaging community members

ALBUQUERQUE, NM

Addressing Healthcare's Blindside in Albuquerque's South Side

Pioneering data-driven approaches to wellness

18 community partnerships in 14 states



CHICAGO, IL

Health Forward/ Salud Adelante

Pursuing legal solutions to make communities less vulnerable

DETROIT, MI

Chandler Park Healthy Neighborhood Strategy

Restoring the heart of a community to improve public safety and education

CLEVELAND, OH

Engaging the Community in New Approaches to Healthy Housing

Remediating lead-poisoned housing stock

SPRINGFIELD, MA

Healthy Hill Initiative

Spurring economic development and public safety

BRONX, NY

The Bronx Healthy Buildings Program

Retrofitting housing for sustainable health improvements

BALTIMORE, MD

Healing Together: Preventing Youth Violence in Upton/Druid Heights

Empowering youth leaders to stand against violence

PASADENA, TX

The Harris County BUILD Health Partnership

Mitigating food insecurity by redesigning the local food system

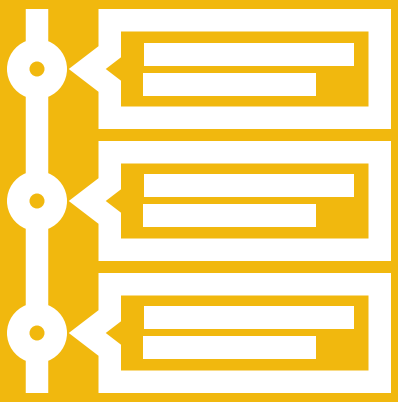
PLANNING AWARDEES

IMPLEMENTATION AWARDEES

LIBERTY CITY, FL

Building a Healthy and Resilient Liberty City

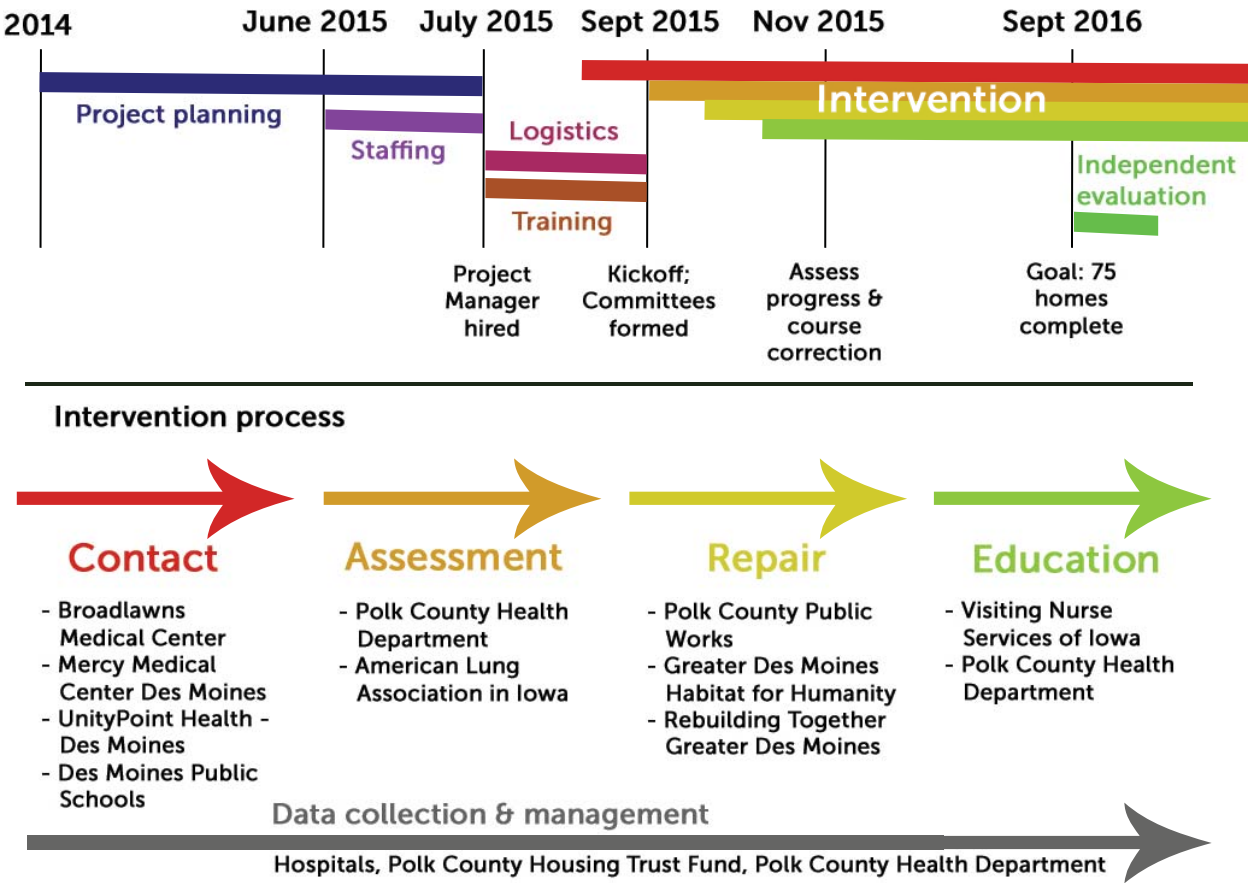
Breaking the cycle of violence at all ages



APPENDIX B

HHDSM TIMELINE

OVERALL PROJECT TIMELINE



APPENDIX C

PARTNERSHIP AGREEMENTS & MOUS

HEALTHY HOMES EAST BANK
MEMORANDUM OF UNDERSTANDING

Beginning July 1, 2015 and lasting until June 30, 2017 the undersigned organizations ("Partners"), along with other organizations that may later sign this Memorandum of Understanding ("MOU"), will work together under the name of Healthy Homes East Bank ("HHEB") in a collaborative effort to improve the lives and health of persons living in the Des Moines Iowa neighborhoods of Martin Luther King Jr. Park, Capitol East and Capitol View (collectively known as the "East Bank" or "EB"). The purpose of this MOU is to signify the commitment of the Partners to HHEB.

The Goal

The primary goal of HHEB is to improve the health of children living in the East Bank through the physical improvement of the homes in which they live and through modification of behaviors and choices that negatively impact their health. A secondary goal of HHEB is to measure and express the financial benefit to the community realized by improvement in the children's health.

The Program

HHEB will specifically look to identify EB households with children experiencing respiratory distress associated with pediatric asthma; test those households for conditions that may be improved through family education and through home repair and follow up with appropriate supportive services and mitigation of household conditions ("the Intervention") that aggravate the patient's condition. After the Intervention, HHEB will follow up with the household and through other Partners having contact with the household to quantify any and all improvements in the patient's condition with the goal of determining and documenting the impact of the Intervention.

Management of the Program

HHEB will be managed by two committees composed of representatives from the Partners. The first is the Strategic Committee. Any signatory to this MOU may send a representative to the Strategic Committee. The Strategic Committee is tasked with directing and evaluating the overall work of the Intervention. The Committee is responsible for facilitating communication among Partners, discussing ways to improve the delivery of the Intervention and troubleshooting problems or concerns as they arise during the term of this MOU.

The second committee is the Management Committee. The Management Committee is composed of one representative from each of the following organizations:

Broadlawns Medical Center
Mercy Medical Center
Unity Point Health- Des Moines
Visiting Nurses Services
Mid-Iowa Health Foundation
Polk County Health Department
Polk County Housing Trust Fund

This Committee is responsible for the financial management of HHEB. It is responsible for approving and monitoring the HHEB budget, approving the reports submitted to HHEB funders and directing the HHEB fiscal agent. It is also responsible for insuring the Partners are notified of and are in compliance with their responsibilities under the Intervention.

Fiscal Agent

The Polk County Housing Trust Fund shall be the fiscal agent for HHEB. The fiscal agent shall be the depository for all funds for HHEB. The fiscal agent may comingle the funds of HHEB but shall maintain separate books of account, reconciled monthly, of all funds, payments and liabilities of HHEB. It will also act as the employer for the Project Manager of HHEB.

Project Manager

The fiscal agent has hired a Project Manager ("PM") to be responsible for the daily affairs of HHEB and to manage communication among Partners, in the wider community and assist with the execution of The Intervention. The salary and benefits for the PM shall be paid exclusively from the assets of HHEB.

Obligation of the Partners

HHEB Partners agree to:

- Identify themselves as a HHEB Partner when participating in any part of the Intervention
- Promote HHEB in Partner's communication vehicles such as Newsletters and social media
- Participate, whenever possible in HHEB sponsored events and HHEB sponsored education initiatives
- Send a representative to Strategic Committee meetings

- Work cooperatively with other Partners, the Management Committee, PM and fiscal agent to maximize the impact of the Intervention
- Continually assess and communicate ways in which the Intervention and HHEB can be improved
- Track outcomes of specific work performed by the Partner as requested by the PM
- Identify and introduce potential partners to participate in HHEB

This MOU is effective on the date executed by the Partner and remains effective through the duration of the Intervention or 6/30/17, whichever is later. Partners may withdraw its participation from HHEB upon written notice to the Management Committee with a copy of said notice sent to the Project Manager. This MOU can be signed in counterparts, and the collection of all counterparts shall constitute the complete document.

DATED _____

_____, Partner Organization

_____

by, _____

HEALTHY HOMES | east bank

Healthy Homes of East Bank (HHEB) DMPS Release Form

Eligible patients are ages 2 – 12 residing in the 50316 zip code with a six-month history of persistent asthma and suspicion that respiratory symptoms are triggered by household environment.

Child's Name: _____	**Interpreter needed?** ☐ **Yes** ☐ **No**
Age_____ **Birth Date** _____	**If yes what language?** _____
☐ **Male** ☐ **Female**	**Name of Parents/Caregivers:**
Address: _____	_____
_____	**Lives with:** ☐ 1 parent ☐ 2 parents
Phone: _____ **- Home**	☐ Other – Relationship _____
_____ **- Cell**	Contact information: _____
Number of bedrooms _____	**Is family currently involved with other community services? Yes** ☐ **No** ☐
Other individuals living in the home:	If yes, in what services is the family involved?

Yes	No	Identified Needs:
☐	☐	Do you have a medical home? If yes, who is your provider? _____
☐	☐	Do you have an asthma action plan or an understanding of how to manage your asthma?
☐	☐	Do you rent your home? If yes, who is your landlord? _____
☐	☐	Do you own your home?
☐	☐	Do you have smokers in your home?
☐	☐	Do you have pets in your home?
☐	☐	Do you have carpet in your home?
☐	☐	Have you had problems with water damage or leaks in your home?

What questions and concerns do you have today?

_____

REFERRAL INFORMATION

Please fax ATTN: HHEB 515-280-7623 or email kierstenc@vnsia.org

Referring Professional: _____

Referring Emergency Room/Clinic: _____ **Phone Number**_____

RELEASE INFORMATION (signature or verbal consent required) Date _____

I give _____ permission to contact Healthy Homes of East Bank.

Signature _____ Relationship to child _____

VERBAL CONSENT A verbal agreement was made between the following parties:

_____ and _____ Date _____

Partnership Agreement
Iowa Legal Aid and Healthy Homes Des Moines

Between: Iowa Legal Aid and Polk County Housing Trust Fund (PCHTF) as the fiscal agent for Healthy Homes Des Moines (HHDSM)

Time Period: January 1 2017 to December 31, 2017

Purpose:
The purpose of this agreement is to describe the relationship for the partnership between Iowa Legal Aid and HHDSM. The overall project goal is for Iowa Legal Aid to participate with HHDSM to provide tenancy protections for tenant families by means of agreements between the tenant and their landlord.

Iowa Legal Aid will:

1. Accept approximately 15 HHDSM program referrals for a 12-month period.
2. Investigate the clients' circumstances, specific proposed Healthy Homes repairs, and provide necessary legal advice to clients.
3. Communicate and negotiate with landlords to complete and execute a lease agreement.
4. Draft lease or other agreements to be entered into by Tenant and Landlord which will primarily require lease terms for assisted tenants up to two years, depending on individual needs and circumstances. During this Lease term, the agreement will expressly prohibit assisted tenants from being evicted without cause.

Polk County Housing Trust Fund on behalf of HHDSM will:

1. Refer rental households with unresponsive landlords that need two-year leases to Iowa Legal Aid.
2. Review and approve all draft agreements intended to benefit tenant families under this proposal.

Terms of the contract:

1. Payments under this Agreement will be in effect for a period from January 1, 2017 and terminating December 31, 2017.
2. Polk County Housing Trust Fund agrees to pay Iowa Legal Aid for services referenced above in accordance with the provisions set forth below:
    - The contracted amount to Iowa Legal Aid is $510 per home plus interpretation services for up to 15 homes between January 1, 2017 and December 31, 2017.
    - Iowa Legal Aid will invoice the Polk County Housing Trust Fund on a monthly basis for services done in that period.
3. The Agreement can be modified only in writing and when signed and agreed by both parties.
4. During the agreement period, either party may cancel this Agreement without cause by giving the other party thirty (30) days written notice of intent to terminate.

5. Immediate termination of the Agreement may occur if either party fails to comply with the terms outlined under responsibilities of this Agreement and/or it negatively impacts the ability of the Polk County Housing Trust Fund or Iowa Legal Aid to ensure the provision of quality services or comply with federal or state reporting requirements.
6. This Agreement may be terminated or modified in the event that adequate funds are not appropriated or available, or the current amount needs to be reduced.
7. Indemnification. To the extent authorized by law, Iowa Legal Aid agrees to indemnify and hold harmless Polk County Housing Trust Fund, its directors, officers, employees and agents from and against any and all claims, actions, damages or loss arising as a result of employee's performance under this Agreement, but only to the extent that such claims, actions, damages or loss are not due to the acts or omissions of Iowa Legal Aid. To the extent authorized by law, Polk County Housing Trust Fund agrees to indemnify and hold harmless Iowa Legal Aid, its directors, officers, employees and agents from and against any and all claims, actions, damages, or loss arising as a result of Polk County Housing Trust Fund performance under this Agreement, but only to the extent that such claims, actions, damages or loss are not due to acts or omissions of the Polk County Housing Trust Fund.
8. Any notices shall be sent to the following addresses:

If to Iowa Legal Aid
Iowa Legal Aid
1700 S 1st Ave #10
Iowa City, IA 52240
ATTN: Charles Hill
Managing Attorney

If to Polk County Housing Trust Fund
Polk County Housing Trust Fund
108 3rd Street Suite 350
Des Moines, IA 50309
ATTN: Eric Burmeister
Executive Director

For: Iowa Legal Aid

Name

Managing Attorney

Date

For: Polk County Housing Trust Fund

Name

Executive Director

Date

VIVA EAST BANK! PARTNERS COALITION
IMPLEMENTATION PHASE MEMORANDUM OF UNDERSTANDING

EFFECTIVE DATE: July 1, 2015

Polk County Housing Trust Fund (hereinafter "Partner") has reviewed the Viva East Bank! Prospectus below that outlines a mission, vision and goals for work to be completed in Des Moines' East Bank neighborhoods and determined that it desires to be a partner of the Viva East Bank! Partners Coalition. The governing body of the Partner has authorized the Partner to enter into this Memorandum of Understanding.

PURPOSE

The purpose of this Memorandum of Understanding ("MOU") is to signify the commitment of the members of the Viva East Bank! Partners Coalition to work together to create transformational change in the Des Moines neighborhoods of Martin Luther King Jr. Park, Capitol East, and Capitol Park (the East Bank) as outlined in the Neighborhood Revitalization Plans.

COALITION STRUCTURE AND VISION

The Viva East Bank! Partners Coalition will operate as a neighborhood-focused, voluntary collaboration of public and private stakeholders in partnership with neighborhood residents to achieve the mutually agreed upon vision:

> *The East Bank Neighborhoods have a high quality of life, including a healthy real estate market with diverse housing options, viable businesses, quality educational opportunities and recreational amenities, and are viewed by neighborhood residents and by the community-at-large as attractive places that people choose to live and work.*

A smaller steering committee serves as the decision-making body when critical or time-sensitive issues need to be addressed, and will help assemble resources for project implementation. Priority area, procedural and special issue work groups address specific topics or projects and monitor progress toward priority area-specific outcomes. A project management team will assist with coordination, communication, grant writing and administration, data tracking, resident engagement activities, and neighborhood capacity building.

MISSION

To enhance the quality of life, reposition the real estate markets and reshape the images of the East Bank by building on the neighborhoods' unique assets and cultural diversity and through implementation of cross-sectoral work plans carried out by partner organizations that are designed to achieve the overarching, shared goals of Viva.

SHARED STRATEGIC GOALS

a. Improve the perception of and experience in the East Bank.
b. Increase demand for living in the East Bank.
c. Strengthen and support the engagement of existing residents to support behaviors, events and projects that result in proud and cohesive neighborhoods.
d. Effectively connect the East Bank neighborhoods and individual residents to resources in order to achieve the goals outlined in the Neighborhood Revitalization Plans (see Appendix A for each neighborhood's priority areas and corresponding goals).

BENEFITS TO PARTNER ORGANIZATION

The Partner is entering into this MOU because it believes that a true collective impact approach is necessary to achieve comprehensive and sustainable change in the East Bank. Additional benefits include:

- Opportunity to collaborate and network with similar organizations as well as across sectors to advance Partner's own mission in support of Viva's shared strategic goals
- Access to shared data and progress measurements; acknowledgement of contribution to attaining outcomes
- Joint fundraising to expand Partner capacity with relation to work plan(s)
- Recognition as a Viva East Bank Partner in publicity and marketing material

OBLIGATIONS OF PARTNER ORGANIZATION

By executing this MOU, the Partner agrees to the following:

- Identify themselves as a member of the Viva East Bank! Partners Coalition,
- Have representation on the Coalition (as identified in Appendix B) and actively participate in the following Work Group(s),
    1. Housing
    2. Healthy Homes East Bank Project
- Work cooperatively toward achieving the shared outcomes of Viva East Bank! and work plans developed by the Partner's Work Group(s).,
- Contribute staffing and other necessary resources toward neighborhood transformation as outlined in the work plans developed by the Partner's Work Group(s),
- Track agency/organization related outcomes as identified in the Neighborhood Revitalization Plans and Priority Area Work Plans,
- Continually assess ways to link residents of the target area with existing services provided by the Coalition Member Organization, and
- Incorporate opportunities to increase residents' knowledge and skills in order to strengthen the neighborhoods' capacity.
- To support collaborative fundraising activities undertaken by Viva East Bank! on behalf of all members of the Coalition and to avoid competing for funding for activities in the three neighborhoods that could be construed as duplicative by funders.

TERM OF THIS MEMORANDUM OF UNDERSTANDING

This MOU shall become effective on the date above and shall remain in force for the duration of Viva East Bank! or October 31, 2016, whichever is later. Partner organizations may withdraw from the Coalition upon written notice to the Steering Committee.

IN WITNESS WHEREOF, the parties have executed this Agreement on the ____ day of _____, 2015.

EXECUTIVE DIRECTOR

_____

Eric Burmeister
Executive Director

BOARD APPROVAL (Meeting Minutes Included)

_____

Debbie Fisher
Board Chair

APPENDIX A: Priority Areas and Corresponding Goals, by Neighborhood

Capitol East

Priority Area: Housing

- Improve the quality of the housing stock for homeowners and renters.
- Provide neighborhood opportunities for home repair.
- Promote redevelopment and creation of new housing in the neighborhood.

Priority Area: Infrastructure

- Create neighborhood 'gateway' corridor along E. 14th St. / E. 15th St. from I-235 to Stewart Square and the south edge of Dean Ave.
- Improve overall pedestrian safety in the neighborhood and decrease pedestrian accidents.
- Enhance overall neighborhood appearance and maintain and improve existing parks.
- Address infrastructure repairs identified by residents.

Priority Area: Youth

- Create a youth volunteer corps.
- Promote mentorship opportunities.
- Encourage parent and family involvement in youth activities.
- Expand opportunities for extracurricular activities and youth programming.

Priority Area: Community Building

- Increase capacity of the Neighborhood Association.
- Strengthen partnership with police liaison program in neighborhood.
- Promote multicultural appreciation.
- Expand community gathering spaces.

Priority Area: East Grand Commercial Corridor

- Create a distinct urban identity.
- Facilitate and expand commercial investment.
- Create a business association.
- Explore support for a community plaza on the East Grand corridor.

Capitol Park

Priority Area: Housing

- Promote home repair and other housing related classes for homeowners, landlords, and renters
- Promote livability of Capitol Park.
- Improve the quality of housing in Capitol Park.

Priority Area: Community Building

- Build Capitol Park Neighborhood Association capacity.
- Strengthen relationship with Lutheran Hospital.

Priority Area: Crime and Safety

- Improve lighting throughout Capitol Park.
- Strengthen relationship with Des Moines Police Department.

Priority Area: Neighborhood Appearance

- Increase business occupancy rates.
- Boost the bikeability of Capitol Park.
- Raise the profile and improve the image of Capitol Park.
- Address vacancy, including Wallace School and other private properties.
- Improve conditions of infrastructure.

- Improve the appearance of Neal Smith Trail from Cleveland Trailhead to South of University Avenue overpass.
- Beautify and enhance existing public space.

Priority Area: Youth

- Collaborate with East Bank neighborhood associations to increase offerings of and participation in family-centered classes and activities.
- Build citywide alliances to enhance athletic programming for youth.
- Promote career development.
- Cooperate with citywide partners to increase offerings of youth arts programming.

Martin Luther King Jr. Park

Priority Area: Safety

- Safety was identified not as a standalone priority area, but one that goes across all priority areas – meaning, that safety should be a consideration throughout the neighborhood plan.

Priority Area: Community Life

- Ensure residents of all ages and abilities have convenient access to healthy lifestyle choices.
- Bring neighbors and families together through community events.
- Expand the Community Education opportunities available in and around the neighborhood.
- Ensure that residents are aware of what is going on.

Priority Area: Infrastructure Improvements

- Improve conditions of existing infrastructure.
- Address traffic safety issues.
- Improve connectivity.

Priority Area: Housing

- Improve the overall condition of existing housing.
- Provide more housing choices in the neighborhood.
- Enhance overall neighborhood appearance.

Priority Area: Neighborhood Edges, Land Use, and Zoning

- Improve aesthetics around the edges of the neighborhood.
- Protect and support existing land uses in MLK Jr. Park that have been deemed desirable to retain.
- Promote a more appropriate mix of commercial and residential development along E. 14th Street and E. University Avenue.
- Reach consensus on the future land use designations for the area south of E. University Avenue between E. 16th Street and I-235.
- Improve the buffer between the neighborhood and the railroad tracks.
- Improve connectivity.

Priority Area: Youth

- Provide structures programs and activities for youth that: build character, are educational, and/or teach life skills.
- Build a culture of respect, pride, and responsibility among area youth.
- Ensure residents are aware of available programs.

Priority Area: Parks

- Create a safe, inclusive gathering space for all residents of the community to interact.
- Make ML King Jr. Park a center for neighborhood information, where people can come to find out what is going on.
- Improve the functionality of the park for area residents.

The BUILD HEALTH Challenge

www.buildhealthchallenge.org