

Best Practices and Lessons Learned

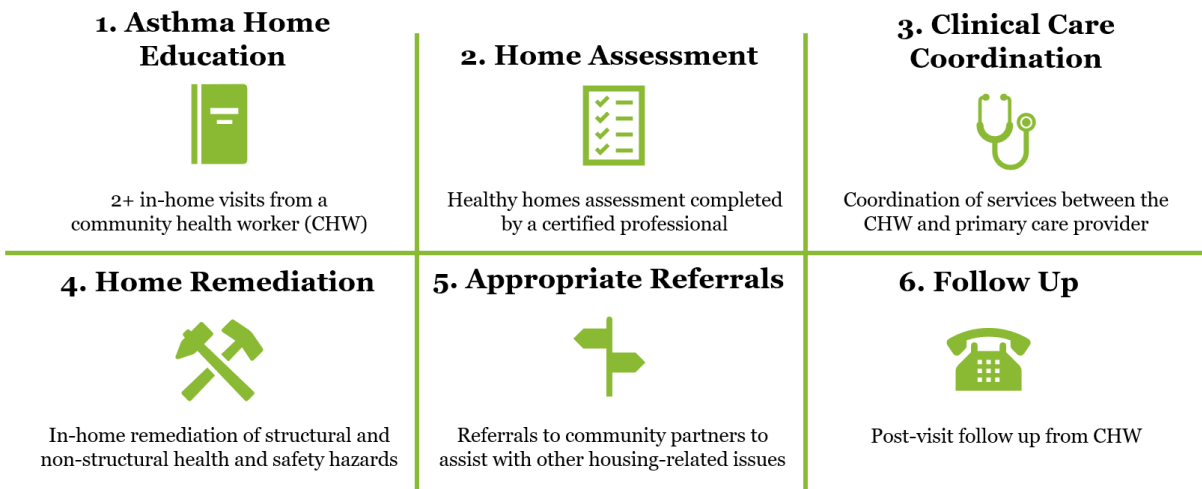
Qualitative Analysis of the Chattanooga, TN Asthma Pilot Program

Pilot Background

Partners in Chattanooga recognized the opportunity to improve health outcomes locally through the design and implementation of a comprehensive asthma intervention program. In 2018, a feasibility study was conducted in partnership with the Green & Healthy Homes Initiative (GHHI) to assess the capacity of local providers to integrate in-home asthma education and trigger remediation services into the existing clinical care structure. Following the study, a core team representing healthcare, healthy housing, and local utility interests was formed to pilot services. Pilot partners included:

Organization	Pilot Role / Responsibilities
	A pediatric clinic with trained community health workers; provides asthma home education visits and clinical care connection.
	One of four Comprehensive Regional Pediatric Centers; provides clinical care connection and health care expertise.
	Local non-profit that works to advance the sustainability of living, working, and building in Chattanooga; coordinates program services between partners
	Oversees the Home Energy Upgrade program and provides utility expertise.
	A publicly owned electric power provider; provides home assessments and remediation services through the Home Energy Upgrade program.
	National non-profit working in communities to break the link between unhealthy housing and unhealthy families; provided technical assistance.

Pilot design incorporated:



The pilot, which served 16 clients over a five-month period in 2019, sought to test the service delivery model and partner capacity for a full-scale comprehensive asthma program.

Data Collection and Qualitative Analysis

Objectives

To inform project partners' continued efforts to make quality improvements and obtain sustained funding for the comprehensive asthma program in Chattanooga, GHHI conducted semi-structured interviews with key stakeholders regarding the pilot experience. Identified objectives were to:

- a) Assess partner experience with the service-delivery model to identify strengths, weaknesses, and recommendations for improvement.
- b) Examine partner relationships as they contribute to the pilot outcomes.
- c) Explore opportunities for outreach to support sustained program financing and growth of service capacity.
- d) Inform program design for full-scale comprehensive asthma program in Chattanooga.

Recruitment Strategy

A total of nine pilot partners were contacted via email to participate in the interview process. Partners contacted for participation were identified through a group discussion at the last weekly

team meeting, in which representatives from GHHI, LifeSpring Community Health, and green|spaces were in attendance. Partners contacted were representative of:

Organization	Participants Solicited
LifeSpring Community Health	1 Executive 2 Program Staff
green spaces	1 Executive 1 Program Manager
EPB	1 Program Manager 2 Program Staff
GHHI	1 Program Manager

No participants were identified for recruitment from Children’s Hospital at Erlanger or the Tennessee Valley Authority (TVA). Of the nine individuals contacted, seven responded and completed the interview process.

Setting

Interviews were completed over the phone, using UberConference and WhatsApp. Interviews averaged 25-45 minutes to accommodate the availability and time constraints of participants.

Analysis

All interviews were recorded using Uber Conference or computer recording software to allow for review and transcription. Transcription was completed by GHHI staff following each interview. Thematic coding was completed using Taguette, a web-based qualitative data analysis program, to assess and compare participant responses. Codes were organized by frequency to identify distinct themes across the interview. These themes are identified and discussed as follows.

Best Practices

Unity towards a Common Goal

The diverse partners engaged in the pilot demonstration of comprehensive asthma services in Chattanooga each brought unique skillsets and expertise to the program, including knowledge of healthy homes, home remediation, and healthcare, familiarity with community networks, and capacity to bridge cultural and language barriers. United in the common goal of helping others live

healthier lives, they were able to effectively work together to provide home-based asthma education and trigger remediation services.

“I think people care about these issues and that’s the main reason it gains traction when it does, it’s that we’re all motivated to see the embetterment of our community.”

In interviews, partners acknowledged the differences between organizations, with a specific focus on silos by sector. Exploration of participant familiarity with other partners prior to the pilot supported this, identifying prior collaboration between the utility / energy efficiency entities (TVA, EPB, and green|spaces) and the healthcare entities (LifeSpring Community Health and Children’s Hospital at Erlanger) but not across sectors. Cross-sector familiarity was often limited to name recognition. Despite this, partners lauded the capacity of the organizations to blend and integrate their services during the pilot.

“You can take a couple of different backgrounds and blend them together with one goal in mind that’s to help somebody. My main goal on it was to help them with their energy efficiency in the comfort of their home, where LifeSpring’s goal was to help them with the asthma. And so you’re taking different organizations with different walks of life and blending them together for one result.”

Collaboration between the pilot partners has been impactful in Chattanooga. Community health workers in direct contact with program clients highlighted that the successful partnership rooted in united, community-based service, has excited clients and motivated enrollment. A continued program should capitalize on these cross-sector relationships and ensure that diverse stakeholders with differing expertise are included.

“I think it’s really neat how many organizations were able to work together. Even when we would describe that to families, they would be really excited about being part of a program that had so much-buy-in from different local and national organizations.”

Building Relationships in the Community

Providing direct services in client homes is a great challenge. Notably, partners experienced the most difficulty in efforts to provide home remediation services. Due to a lack of pre-existing relationships with pilot participants, some showed skepticism about the services. Trust is essential given that health workers and home assessors are required to be inside the participants home. Partners also noted that clients were hesitant to apply for remediation assistance through the program, citing fears that there “was a catch to it.”

“One of the hardest things about doing weatherization work, whether it be through a power cooperative like EPB or any of the others is a lot of times these customers, or clients you may want to call them clients, they always think there’s a catch to it. That there’s going to be a fee attached to the end that they don’t know about.”

By partnering with the client’s primary care provider, LifeSpring Community Health, EPB was able to leverage the provider’s history of interaction with the client and understanding of cultural and language barriers to facilitate the smooth provision of services. The trust established between the patient and provider worked to make patients more comfortable with the program and pilot partners.

“And the good thing about working through the health workers is that most of the time, like last spring, these health workers already had established relationships with them. So when they say ‘hey, we got some guys here that we think can help you,’ it’s like they’re more receptive to letting us come in and do the work.”

“I think we brought the knowledge of the patients and of the cultural and language barriers. And just the fact that they knew us and were comfortable with us - that accessibility of helping them feel safe and able to speak to us, and through that being able to be assisted by places like green|spaces and EPB.”

As noted through the interview process, EPB also worked with compassion and commitment to the clients served. They made efforts to develop their own relationships with the clients and worked to meet the unique needs present in each situation. In some cases, staff spoke Spanish to reduce the need for translation. They also followed up with clients to ensure the services were provided in a timely and complete manner. This worked to reinforce positive client experiences and distribute client trust among all partners. Partners should continue to include trust and relationship building into the model and ensure that all participants feel comfortable with all project partners. This will increase both enrollment and completion of the program.

Similarly, one contact person should be established and kept throughout the entire process to serve as a trusted resource for any questions or concerns.

“So families who spoke Spanish, he spoke to them and there was no need for translation. That was something that was really awesome to see. It just made him very, very hospitable. That was the strength for green|spaces - they were more hospitable, just making sure

that the families are taken care of for the needs of the installations that they need to. The work is done really fast, at least from what I've seen, and they follow up with families too."

Commitment of Core Team Leadership to Pilot Success

The development and implementation comprehensive services to address community health needs is a large undertaking that requires the dedication and collaboration of many partners. Prior to the pilot, Chattanooga did not have a comprehensive asthma home visiting program despite being ranked on of the most challenging cities in the US to live with the disease ¹.

Throughout the interview process, partners praised the commitment and dedication of core team leaders, notably Michael Walton of green|spaces and Michele Pickett of LifeSpring Community Health. They described the work of these individuals as key to the successful launch and integration of program operations, highlighting that without their commitment, the program would not have come to fruition.

"The main one that sticks out to me is the dedication of the core team... There were definitely a lot of moving pieces and building a program from scratch with \$50,000 is not easy. It's definitely a feat... Just their commitment, and their resourcefulness, and their dedication to the mission – everything about it was what made the pilot happen."

Specific mention was made of the strategic resourcefulness and ingenuity of Michael Walton and the green|spaces team, as participants credited them for the group's ability to work through challenges identified during the pilot.

"When we ran into the problem of most of the participants not being home owners, that was not a dead-end for him and his team. They were willing to work and try to figure out and strategize ways we could help families even if they didn't own their home. That's been a very valuable strength, and even as the pilot ends, we intend to keep working with them."

In addition, respondents cited Michele Pickett's leadership and oversight of the community health workers as integral to the provision of in-home services.

"But she is just super committed, very organized... internally she has kept the ship going. If it wasn't for her, the community health worker stuff would have fallen apart."

¹ Asthma & Allergy Foundation of America. "Asthma Capitals 2019: The Most Challenging Places to Live with Asthma." 2019

Feedback provided also stressed the impact of action-oriented mentality and persistence as characteristics demonstrated by both pilot leadership and staff as critical to success.

“You know, if we hadn't had strong partners, strong leadership, and everyone with enough zeal and want to, then it would have never lifted off. I've been on committees before where you talk about doing stuff, and you talk about it, you talk about it, you talk about it some more, and then you put it on the back burner and then It never happens. I guess persistency is one of them - the top things. They gotta have partners that are persistent, who can keep the ball moving to be able to overcome the hurdles and the obstacles that get in the way.”

Strong, dedicated partners are hard to come by and this project has many. Although pilot funding has slowed, partners should work to keep the momentum going by continuing to meet periodically to discuss fundraising opportunities and a TennCare strategy.

Lessons Learned

Communications

Though overall support for the modes of communication used by partners throughout the pilot process was high, frequently noted service delivery challenges point to some barriers to effective communication. This was identified in both inter-organization communication and as part of external community outreach and recruitment efforts.

Between organizations, confusion around eligibility for EPB's Home Energy Upgrade program exacerbated difficulties with enrollment. Community health workers noted that this led to problems managing client service expectations.

“At first, at the beginning of the pilot, we didn't know who... with which family fits with which [program].”

“I know at the beginning - before I was working with it - they had a problem feeling like they came in with the program and were offering families a lot in terms of home repair stuff. Then it was hard as they were realizing that families weren't qualified. So, making sure that you're not overpromising or getting families' hopes up for more than the program will ultimately be able to help with.”

“...we need to do our job better from the front end. Identifying the criteria and the eligibility so we don't offer this to families that aren't ever going to be eligible to receive it.”

During the pilot, partners took steps to remedy this problem by meeting in person to review program eligibility requirements. Partners noted that this type of meeting was beneficial and helped them better understand the eligibility requirements.

“At some point, I asked Michael to come over to the clinic and meet with us. That was excellent. That I wish we had done from day one.”

Outstanding concerns regarding clarification of the eligibility requirements were not raised by the participants but were made clear when a respondent explained that the presence of a senior citizen in the home was a requirement for EPB services. This conflicts with the actual eligibility requirements according to EPB, which are solely income-based.

“For poverty-level families, I don’t think they would be eligible unless they have an elderly family member in the home – then they would be eligible for EPB.”

“... like one of the pathways through EPB you have to have a senior in the home, someone over 60. A lot of our homes didn’t have that.”

Written clarification of eligibility requirements between pilot partners is needed to clear up discrepancies and successfully reach the full spectrum of eligible clients for services moving forward.

Communication between partners regarding the status of client applications and service timelines was also raised during the interviews. Partner feedback indicates that it was difficult for the community health workers to obtain feedback on client applications, outstanding documentation needed, and project timelines for the EPB Home Energy Upgrade program. Furthermore, partners were not clear of who was responsible for follow-up with client regarding outstanding documentation – community health worker or EPB assessors.

“In the beginning, I think, we just submitted the applications and kind of waited to see. And sometimes EPB used another company to process the applications. They would send information back to the family about what was missing, and the community health workers were trying to find that stuff and get it sent in. About midway, through our weekly calls, we decided to create a tracker - a spreadsheet - where we were tracking what the status of each of the applicants were. And that was helpful. And then, really in the summer - so we’re almost towards the end - Michael and his group said, ‘we’ll just look at the tracker and find what’s missing in the applications and we’ll follow up with that.’ So, at first it was not sure whose responsibility it was to make sure all the application documents

were in. We kinda thought it was ours, but we were having a hard time getting it all in or knowing.”

“Yes, mostly with EPB. It was kind of hard to stay in touch with them. There was no well communication. We had to go through Michael from green|spaces if we didn’t hear anything from them. We heard the information from Kiersten or from Michael. Other than that... that’s where we could hear from them, from my experience.”

Partners did work to implement and use an Excel spreadsheet to track client progress through the application process when challenges were identified during the pilot. Though the spreadsheet helped alleviate some confusion, partners noted use of the spreadsheet was not consistent across organizations. As partners continue to work together to provide services, effort should be made to clarify and document designated client follow-up responsibilities and improve use of data sharing tools across organizations.

External communication concerns highlighted the need for document translation. Community health workers noted that all materials provided for client education and program application needed to be translated into Spanish to meet the needs of many clients eligible for services. Additional languages spoken included Arabic and French. Language barriers made it difficult for clients to successfully complete the EPB Home Energy Upgrade application on their own and may have prohibited program uptake by eligible families.

“...mostly the stuff were in English and the challenge was to translate everything in Spanish. That was kind of taking mostly our hours to translate for Spanish-speaker families.”

“Independently some of them could finish half of it. Because of the education level that they are, whenever they had a question, that’s where I jumped in. Probably about 50% we jump in and helping them fill out that assessment. Part of it is the language barrier and educational barriers that are also there too because some of them don’t know how to read, so we have to read the application for them.”

Partner concerns also recognized the need to ensure program materials were in familiar, simplified terminology, as opposed to complex medical terminology. When coupled with language barriers, the use of medical terminology complicated client comprehension of educational materials on asthma management and trigger remediation. Future improvements to the program should incorporate changes to materials and trainings that acknowledge and address these concerns.

“We had to have like a basic English and not too much medical terminology. Like, it has to be medical terminology, but it has to be basic enough where they understand where you are coming from and what you are trying to deliver. So, speak in very basic English for families to understand. The education and the message we are trying to get across, we need to give them basic English for them to understand.”

External Challenges

Partners also identified additional systemic challenges that complicated the provision of services, including poor local housing stock, lack of legal protections for renters, limited resources for immigrant families, and low access to clinical care / insurance coverage.

In homes with eligible clients, partners noted that structural remediation work was often inhibited by the overwhelmingly poor conditions present overall. Though some remediation efforts could be pursued, utility and energy partners highlighted the resulting complications, including delays, increased costs, and negated impact of the financial investment in the home.

“The houses that are being flagged for these how health problems are in such bad condition that it's ...The work that's needed on them just goes far beyond just weatherization and really gets into just a lot of other traits. I think having the money and capacity to really fix up a house to where it needs to be to make it a healthy place to live is just a big task.”

Partners note that such conditions stem from limited legal protections guaranteed to renters in Chattanooga. In some cases, they argue, relocation may be more effective than remediation in impacting the health outcomes for the identified client.

“There's a lack of good policy solutions in Chattanooga to protect renters from abhorrent housing conditions. People are living in some really, really terrible environments and they can't do anything about it because of the lack of available healthy, high performance, available housing. And the City is unwilling to raise that bar.”

“The second thing that I think was discovered was the need for relocation assistance in addition to, or in lieu of, remediation assistance. And some cases it wouldn't have made sense to put a few thousand dollars into a house that for all practical purposes would have been torn down. In that case, I would rather use that money to pay for somebody's security deposit in another unit, somewhere else, or to create some sort of incentive program for housing placement.”

Additional effort is needed to identify suitable partnerships and support relocation on an as-needed basis.

Though immigration status did not prohibit clients from receiving services through the program, partners encountered significant difficulty assisting immigrant families with local referrals.

“I think the greatest challenge was with our families who were undocumented. There was nothing to offer these families.”

“So, they can’t use Chattanooga Housing Authority. Housing Choice Vouchers aren’t available. Other sort of subsidized housing options aren’t available. They can’t buy a house or it’s difficult for them to buy a house. And the legal leverage they have over landlords is limited. Some of that’s because of their immigration status and some of that’s just because there is limited leverage tenants have over landlords in the state of Tennessee.”

Partners identified a need to factor consideration for these families into the planning process and develop strategies for provision of services as available.

Access to medications via insurance coverage was also identified as an external challenge that inhibited the program’s success. The in-home services provided by the pilot are intended to build upon the clinical care and management of asthma provided in the medical setting. Community health workers note that many clients enrolled in the program were unable to afford appropriate medications to suppress asthma symptoms due to a lack of insurance coverage. Without access to needed prescription medications, clients were not able to fully capitalize on program education and services.

“They’re also uninsured. So, most of our patients who were uninsured, it was hard for them to find inhalers.”

For patients that are eligible, community health workers could assist the family in applying for Medicaid or another form of government health insurance or refer them to someone who can help.

While the solutions to some of these challenges fall beyond the scope of services provided by the pilot, partners noted the importance of factoring these hurdles into the service delivery model and being prepared to make appropriate referrals to help clients in need.

General Recommendations for Continued Success

The body of this document contains our recommendations specific to each finding from the interviews. This section outlines three general recommendations for partners to consider:

Increased Involvement of Direct Service Staff and Community Members

Increased participation of direct service providers (community health workers, home assessors, etc.) should be prioritized in future partner meetings. As the direct providers, these team members have the greatest understanding of the communities served, challenges faced, and opportunities to improve. They can help inform changes to the service delivery model that will increase participation, improve partner collaboration, and scale outcomes in Chattanooga while focusing on the provision of client-centered care. Partners should also consider involving community members in the planning process to the extent feasible, especially those that received services in the pilot.

Development of a Program Operations Guide

To improve inter-organization clarity regarding programmatic roles and responsibilities, preserve the integrity of program design, and prepare for scaled implementation, it is recommended that partners develop a program operations guide. This guide would describe the designated responsibilities of identified staff and outline operational processes from client identification through post-intervention follow-up. It would also denote evaluation metrics and data management / analysis guidelines to ensure timely assessment of program outcomes.

Exploration of Collaboratively Identified Opportunities for Outreach

Throughout the interview process, partners brainstormed opportunities to expand service partners, financial support, and community awareness of the comprehensive asthma intervention in Chattanooga. Partners should continue to meet to discuss strategy for outreach. The following is a composite list of potential partners, funders, and outreach strategies compiled from the interviews, and serves as a reference for continued outreach in support of sustained and expanded program services:

Potential Partners	Chattanooga Asthma & Allergy Clinic Hamilton County Public Schools Local Contractors & Builders
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	Local Health Clinics Erlanger Specialists – re: Pulmonologist Hamilton County Health Department
Potential Funders	TennCare City of Chattanooga The Lyndhurst Foundation The Benwood Foundation The Community Foundation
Potential Outreach Strategies	Health Fairs Distribution of Materials at ED Discharge or in Schools American Academy of Pediatrics–Tennessee Chapter (TNAAP)