

# **GHHI Austin Learning Network**

## **Convening & The Holly Project**

### **Pilot Program**

June 24, 2015

# History and Background of GHHI

# History of GHHI



The **Coalition to End Childhood Lead Poisoning** is a 501(c)(3) nonprofit organization that develops, implements and promotes programs and policies to eradicate childhood lead poisoning and further the creation of healthy homes. The Coalition was founded in 1986 as **Parents Against Lead**, a grassroots volunteer effort.



**Green & Healthy  
Homes Initiative®**

The **Green & Healthy Homes Initiative** was charged in 2008 by the Council on Foundations and the White House Office of Recovery to lead the national efforts to integrate lead hazard control, healthy homes and weatherization and energy efficiency work.

# [Collective] Financial Burden

**9M families live in unhealthy homes.**

Over 14 Million...

- Missed school days because of an asthma episode
- Missed work days caring for a child during an asthma episode

Percent of income spent on energy costs:

- 14-20% in low income households
- 3.5% in all other homes

Billion of tax dollars ALREADY spent annually:

- \$43B+ on lead poisoning
- \$51B+ on asthma-related illness
- \$19B+ on seniors' trip & fall injuries

# DeWayne's Story

DeWayne Davis, age 8, suffered from asthma caused by his unhealthy, energy-inefficient home which was full of asthma triggers.



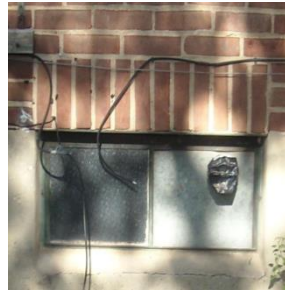
Old carpets =  
allergens



Water leaks =  
mold hazards



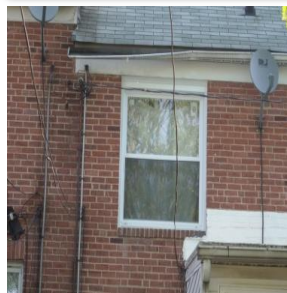
Deteriorated  
windows = air leaks



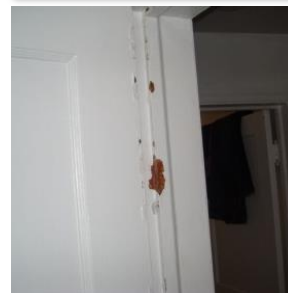
Broken hot water  
heater & furnace



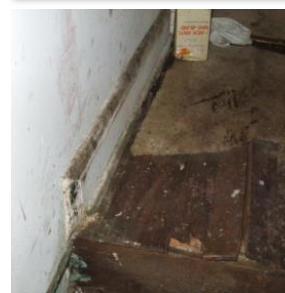
Defective gutters =  
water leaks



Chipping paint =  
lead hazard



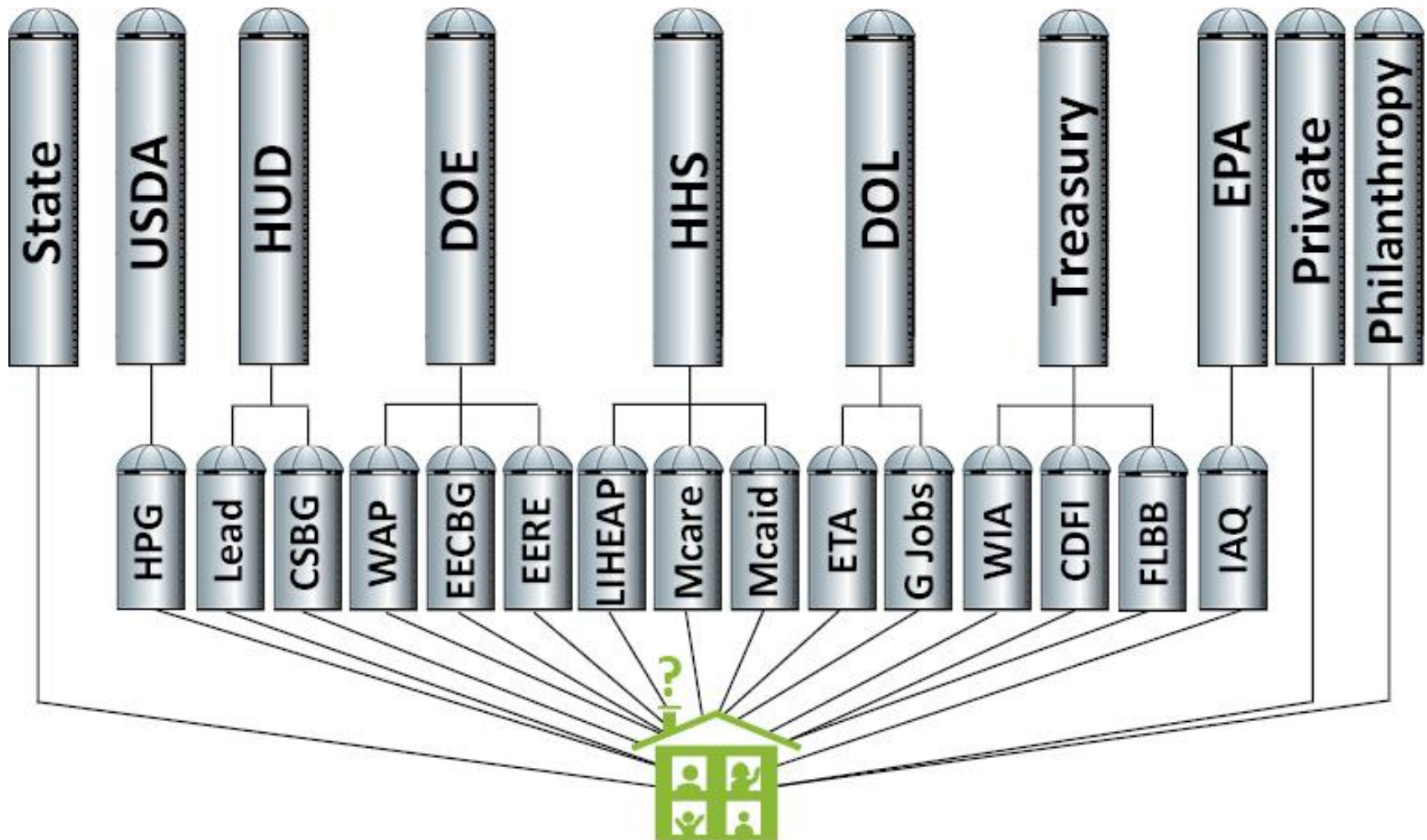
Broken tile =  
safety hazard



Broken ducts =  
higher heating bills



# A Fractured Delivery System



# The Strategy



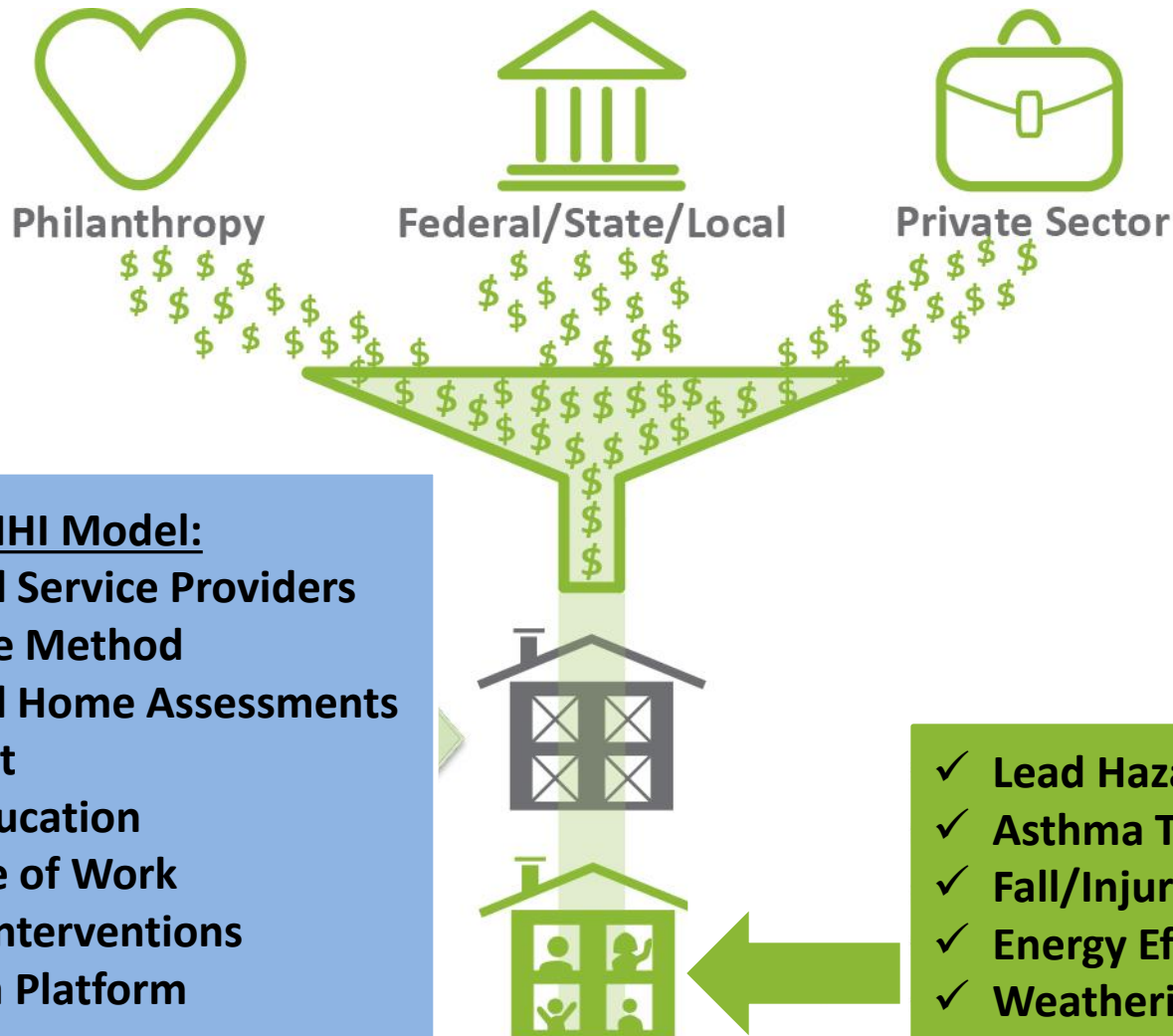
Align

Braid

Coordinate



# The “No Wrong Door” Model



## The *Optimal* GHHI Model:

1. Coordinated Service Providers
2. Single Intake Method
3. Coordinated Home Assessments
4. Energy Audit
5. Resident Education
6. Single Scope of Work
7. Integrated Interventions
8. Shared Data Platform

- ✓ Lead Hazard Reduction
- ✓ Asthma Trigger Control
- ✓ Fall/Injury Prevention
- ✓ Energy Efficiency
- ✓ Weatherization

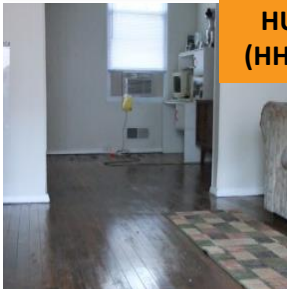


# A Solution Through Braiding

- Interventions in DeWayne's home cost 25% less (\$12k vs \$16k)
- DeWayne hasn't returned to the hospital for asthma related visits
- DeWayne's school attendance has improved
- The family's monthly heating bills have been decreased



Remove old carpets



HUD  
(HHDP)

Remediate mold,  
install dehumidifier



HUD  
(HHDP)

Install Energy Star  
windows



HUD  
(HHDP)

Install furnace &  
hot water heater



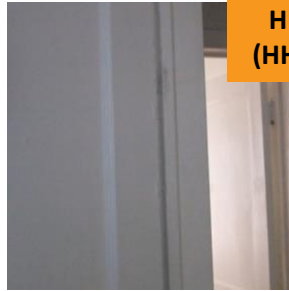
Philanthropy

Replace broken  
gutters



HUD  
(HHDP)

Stabilize chipping  
paint



HUD  
(HHDP)

Resurface uneven  
floors



HUD  
(HHDP)

Seal ducts,  
blow insulation



DOE  
(WAP)

# National Outcomes

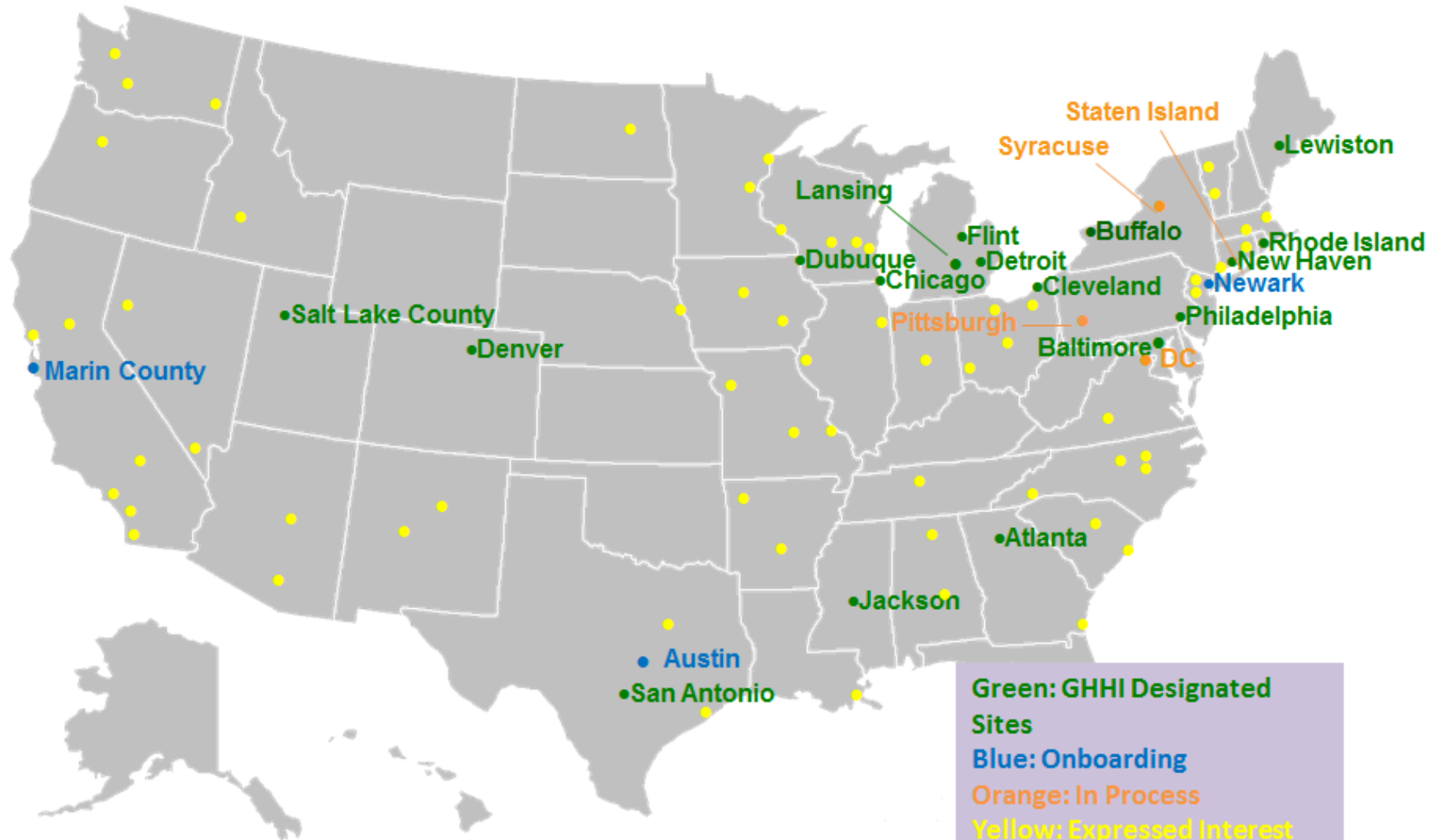
**5,500+ GHHI units completed in Phase One.**

- 66-70% reduction in asthma-related hospitalizations
- 50% increase in not visiting the doctor's office for asthma episodes
- 62% increase in perfect attendance (0 absences due to asthma)
- 88% increase in not missing work for child's asthma episodes
- \$404 average annual reduction of energy costs
- Up to 20-25% decrease in costs to government programs
- 1,100+ persons trained for the Green & Healthy Homes Workforce with a \$4K - \$8K increase in wages

# National Partners



# National Scaling



# The Full Conversation

## Green & Healthy Homes Initiative

& Family Health

& Energy Efficiency

& Housing Affordability

& Education Outcomes

& Public Sector Innovation

& Opportunity

# GHHI's Future

- 60 GHHI program sites by 2017
- 300,000 housing units meeting GHHI Standards
- 5 Social Impact Bonds/Pay for Success (asthma) by 2016
- Development of Medicaid/Insurance Payment Models to reimburse environmental interventions
- Capturing the impact of green & healthy homes on educational outcomes and family stability

# PFS Overview

## Pay for Success

Contract structure where payment is based on the outcomes that a social service produces, rather than funding based solely on the delivery of services.

## Social Impact Financing / SIBs

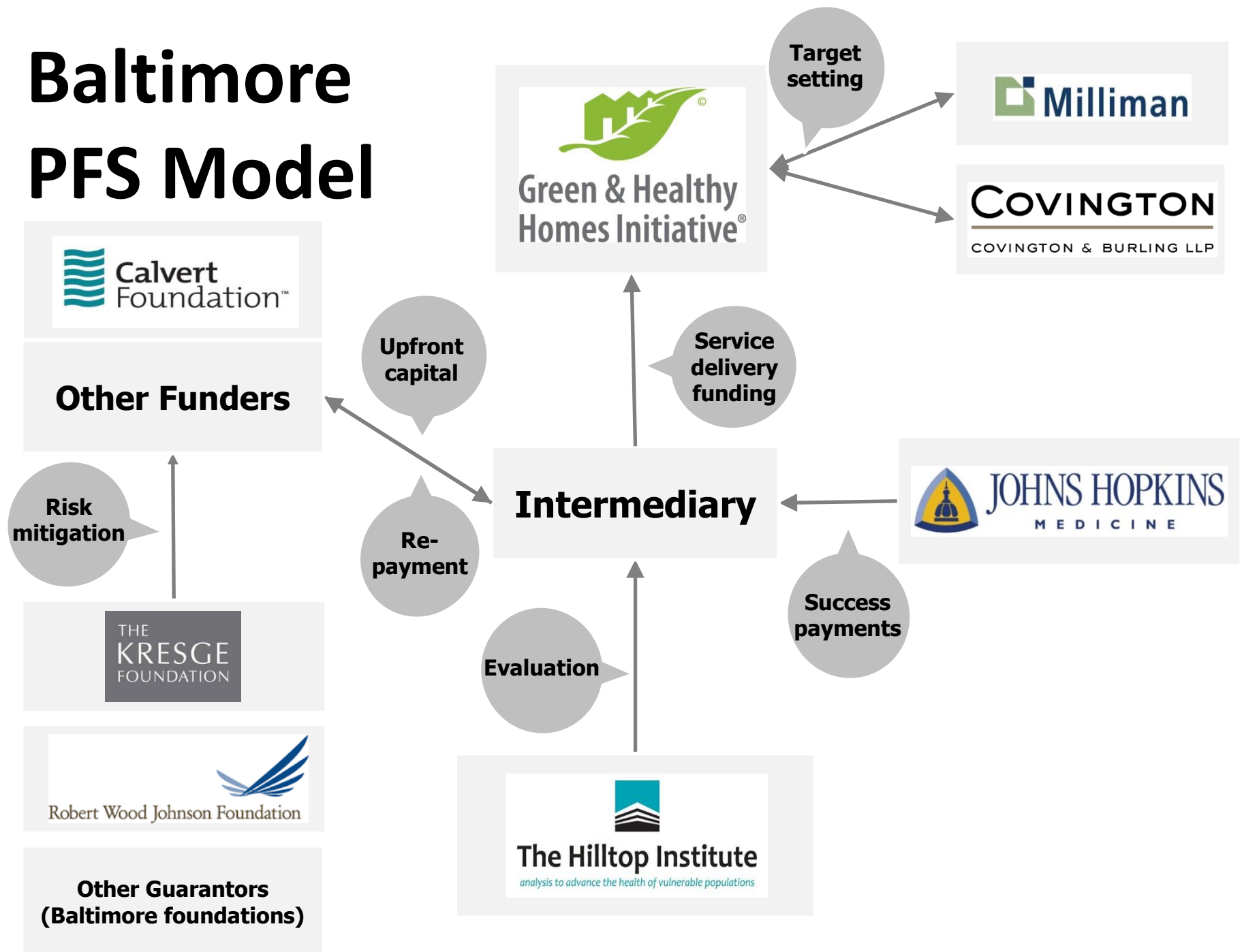
A financing tool for addressing the time gap that occurs from when the service needs to be financed and when the impact, or success of that service occurs.

## Basic PFS Setup

Private investors pay the upfront costs for providing social services and government agencies or private institutions repay investors with a return on their investment if the program achieves agreed-upon outcomes (such as decreased healthcare expenditures).



# Baltimore PFS Model



# Launched PFS projects in U.S.

| Location          | Issue            | Budget   | Time Frame  |
|-------------------|------------------|----------|---|
| Massachusetts     | Juvenile Justice | \$21.3 M | 6 years   |
| Salt Lake County  | Early Education  | ~\$7 M   | 1 year, additional years based on pending funding |
| State of New York | Adult Recidivism | \$13.5 M | 5 ½ years   |
| New York City     | Juvenile Justice | \$16.8 M | 4 years   |

Asthma PFS projects developing in Fresno and Alameda County, CA

# Business Case: Home Interventions

- HHS's economic review of published studies showed a return of \$5.30 to \$14 for each \$1 invested in environmental asthma interventions
- MN Dept. of Health's Reducing Environmental Triggers of Asthma program produces cost savings of \$1,960 per patient over 1-yr period
- Seattle King County Healthy Homes II Project found additional benefits of adding environmental trigger reduction above education alone
- Costs of ER visit can be \$500-\$1100. Cost of hospitalization can be \$5000-\$12,000
- Intervention intensity can be stratified by disease severity
- HUD has found lead poisoning interventions have \$17-\$221 ROI (majority from lifetime earnings)

# How PFS can set up long term sustainable funding for GHHI

## Today...



There are millions of homes across the country that are contributing to the poor health of their residents



GHHI finds these homes and 'braids' public and private funding from numerous sources to provide the necessary improvements



This intervention yields proven results, including reduced medical expenses, yet the beneficiaries of these savings are not involved

## ...the long-term goal



There are millions of homes across the country that are contributing to the poor health of their residents



The medical field recognizes the home as a key part of the continuum of care and payers provide funding for home improvements



This funding is provided to GHHI through a more streamlined process so they can scale their operations and serve more homes

**Our assumption is that large public and private payers will not shift funding until the intervention is proven at scale**

# Learning Networks Across the United States

# GHHI Providence Learning Network

- RI Office of Energy Resources
- National Grid
- Providence Community Action
- RI Department of Health
- Neighborhood Health Plan
- Brown University
- Building Futures
- Amos House
- OIC
- Community Health Workers Association
- Providence Plan
- Childhood Lead Action Project
- Apeiron Institute for Sustainable Living
- LISC- RI
- Energy Efficiency Resource Management Council

# GHHI Providence Program Flow

**Community  
Outreach,  
Education and  
Program  
Registration**



**Whole Home  
Energy & Health  
Audit**



**Organization of  
Intervention/  
Retrofit Plan**



**Intervention  
Completed**



**Post  
Intervention  
Audit**



**Post Intervention  
Behavior  
Education and  
Data Collection**



# Developing GHHI Austin

# The Need in Austin

**360,291 Housing Units in Austin, TX**

**Occupied housing units: 92%**

**Built before 1980: 40% of homes -- 142,406**

**Built before 1940: 2.7% of homes -- 9,603**

## **Severe Housing Problems:**

18,570 owner-occupies homes

54,035 rental units

- Incomplete kitchen facilities
- Incomplete plumbing facilities
- More than 1 person per room
- Cost burden greater than 50%

# The Key is Integration

## Elements of a Green & Healthy Home

**Dry**

**Well Ventilated**

**Contaminant Free**

**Pest Free**

**Well Maintained**

**Safe**

**Clean**

**Energy Efficient**

# Becoming a GHHI Site

1. Asset and Gap Analysis
2. **Local Learning Network Convening**
3. Outcome Broker Selection
4. Work Plan Development
5. Compact Signing
6. Data and Evaluation Plan
7. GHHI Designation

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