



Green & Healthy Homes Initiative[®]

Advancing Energy Efficiency and Decarbonization to Improve Health and Resilience

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About GHHI



Vision

Addressing the social determinants of health and racial equity through healthy housing.



Mission

GHHI is dedicated to addressing the social determinants of health and the advancement of racial and health equity through the creation of healthy, safe and energy efficient homes. By delivering a standard of excellence in its work, GHHI aims to eradicate the negative health impacts of unhealthy housing and unjust policies for children, seniors and families to ensure better health, economic and social outcomes in historically disinvested communities – with an emphasis on communities of color.



34 Million Families Live In Unhealthy Homes In The US

Lead poisoning costs \$43B+ annually

Primary cause is lead-based paint in homes built before lead paint was banned in 1978

Leads to learning disabilities, ADHD, lower IQ, higher crime rates, lower lifetime earnings

Asthma costs \$81B+ annually

40% of asthma episodes caused by triggers in the home

Primary reason kids miss school-14.4M days

3rd leading reason kids are hospitalized



Fall hazards cost \$50B+ annually

30% of adults age 65+ fall annually, mostly at home

Energy inefficiencies cost \$20B annually

Energy burden for low-income households 3x higher than that of other households

Housing Quality Is A Matter Of Health, Racial and Economic Equity



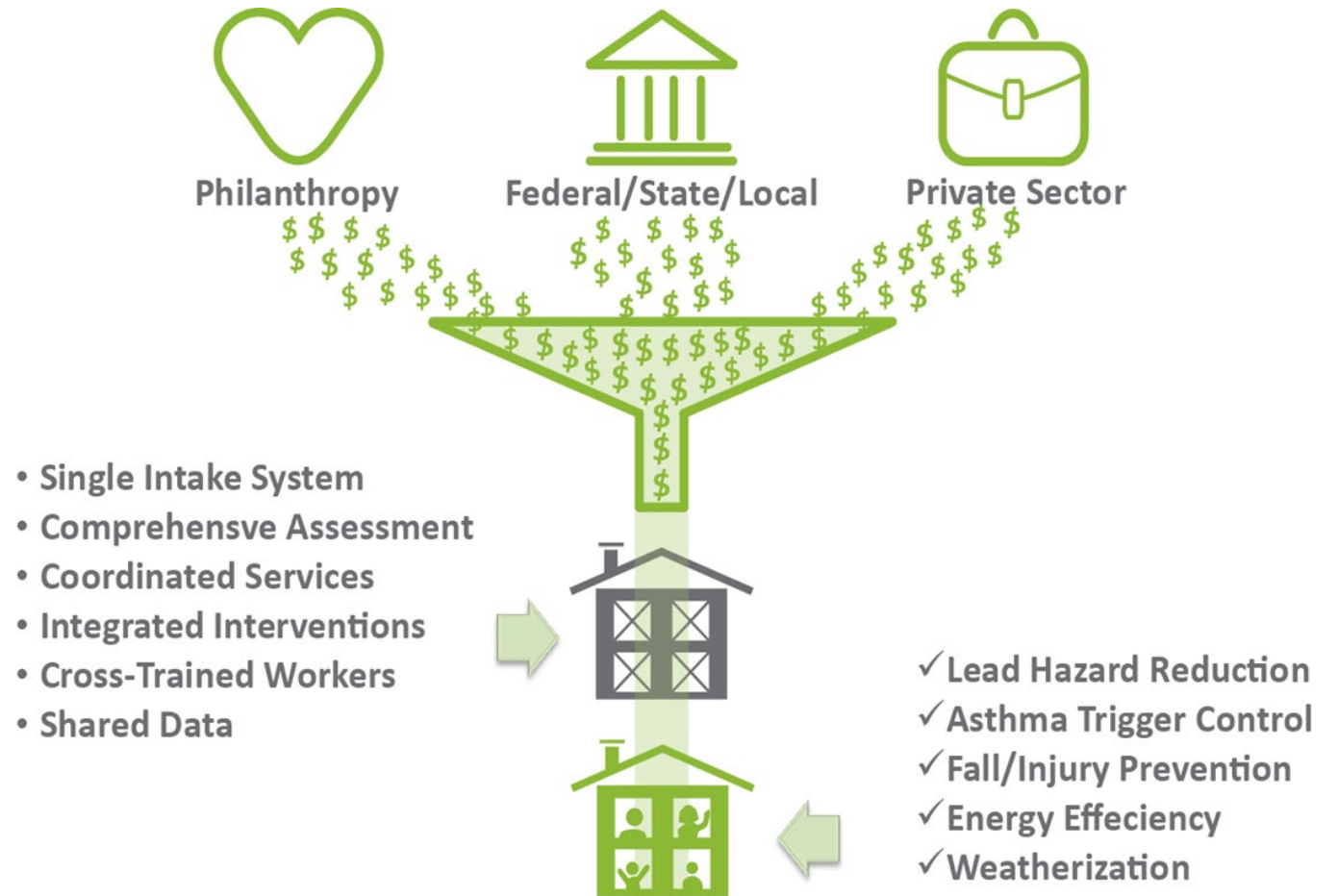
- Communities of color are more likely to live in unhealthy homes, causing disproportionate rates of lead poisoning, asthma episodes, energy insecurity, and severe economic effects exacerbated by the affordable housing crisis.
- Making homes healthier is a preventive measure. Energy efficiency and appliance electrification interventions can reduce carbon emissions but also impact health by improving indoor air quality, reducing extreme heat and cold, and addressing safety risks such as carbon monoxide poisoning.

GHHI Model: Aligning Resources to Advance Holistic Retrofits

Align
Services & funding

Braid
Relevant resources

Coordinate
Service delivery



GHHI's Whole-House Strategy

Comprehensive, integrated resident education, assessment, and housing interventions



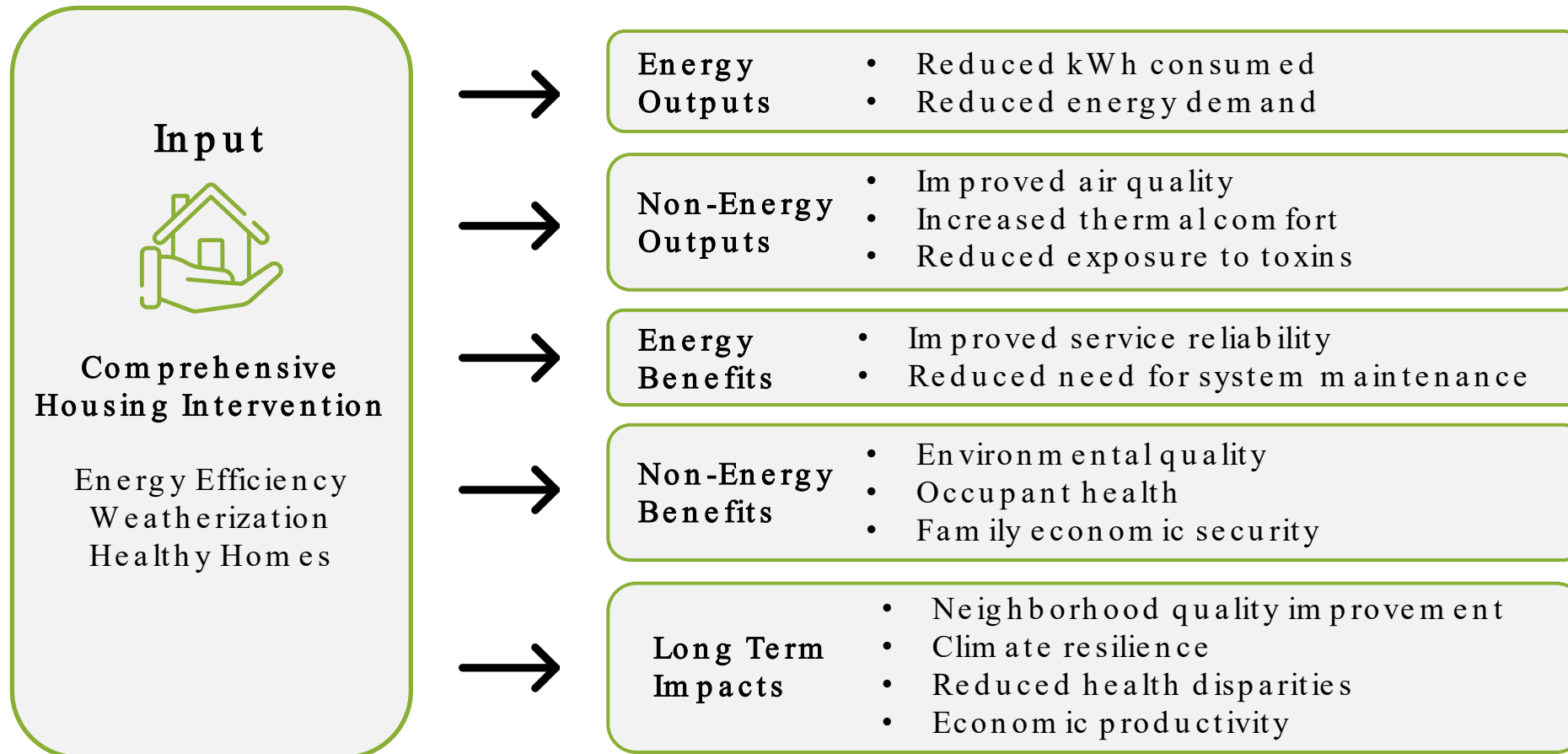
Hazard Recognition, Risk Assessment, Risk Management, and Phased Scope of Work to Address Multiple Intervention Needs:

- › Lead-based paint hazards
- › Asthma triggers (Mold, pests, VOCs)
- › Injury hazards (Falls, fire, poisoning, etc.)
- › Radon and asbestos hazards
- › Energy efficiency/weatherization issues
- › Electrification/decarbonization
- › Housing rehabilitation



Conducted by cross-trained housing assessors, educators, and contractors addressing housing issues holistically

Holistic Housing Interventions Produce **Broad Impacts**



Utilize Innovative Funding to Create Sustainable Services for **SDOH** Impact at Scale

Hospital Investment:

Lancaster General Hospital (LGH)

\$50M in LGH hospital funds are being invested to in lead remediation in 2,800 homes in Lancaster County, PA

Health Care Investments and Partnerships:

Health insurer and healthcare provider investments in preventive lead, asthma and household injury services

Amerigroup, BCBS, Affinity by Molina



Sustainable Financing Examples

Public-Private Partnership:

Michigan Lead Fund

State's initial \$2M for loan loss reserve estimated to have 30x multiplier in loan activity and will leverage private investment

Government:

CHIP Health Services Initiatives (HSI)

States use administrative dollars and enhanced federal match to fund lead abatement, asthma care management, and other non-covered services
State examples of lead/healthy homes HSI: CA, IN, MD, MI, OH, WI

Implementation of the Whole House Model



Healthy Homes Program Model

Referrals + Outreach



Referrals from and outreach coordinated with diverse set of local partners

Single-Stream Intake



Intake coordinator obtains consent, completes surveys, and schedules appointment for baseline home visit

Resident Education + Referrals



Community health worker (CHW) (or health educator/ equivalent) conducts home visits in-person or virtually, providing patient-centered education.

Comprehensive Assessment



Environmental assessor (EA) identifies health and safety hazards and develops scope of work.

Housing Intervention



Program staff and/or subcontractors perform repairs/ improvements.

Quality Assurance



EA conducts a quality assurance inspection to ensure services accord with best practices.

Follow Up + Close Out

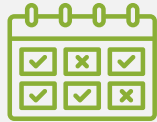


CHW conducts case follow-up via phone with client at 3/6/9/12 months post-intervention.

Results of GHHI's Whole-House Approach in Baltimore



66% reduction in asthma-related hospitalizations



62% increase in asthma-related perfect school attendance



88% increase in parents not missing work due to their child's asthma condition



Over \$2,000 in Medicaid savings for children with asthma within 12 months compared to control group



\$404 average annual energy cost reduction per home

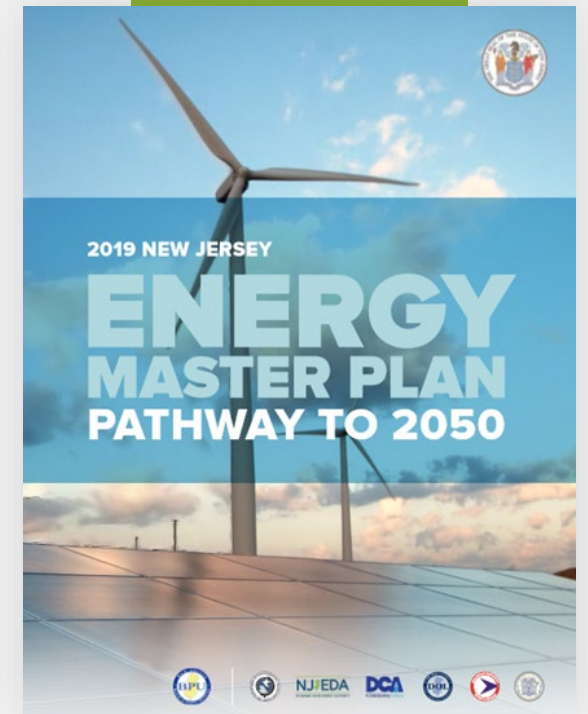
New Jersey Whole House Program

Vision

To meet the state's climate goals by scaling up and coordinating residential energy efficiency services and healthy homes programs in the state, particularly for limited income residents, Black and Brown residents, older adults, and residents of underserved, and under-resourced communities.

How?

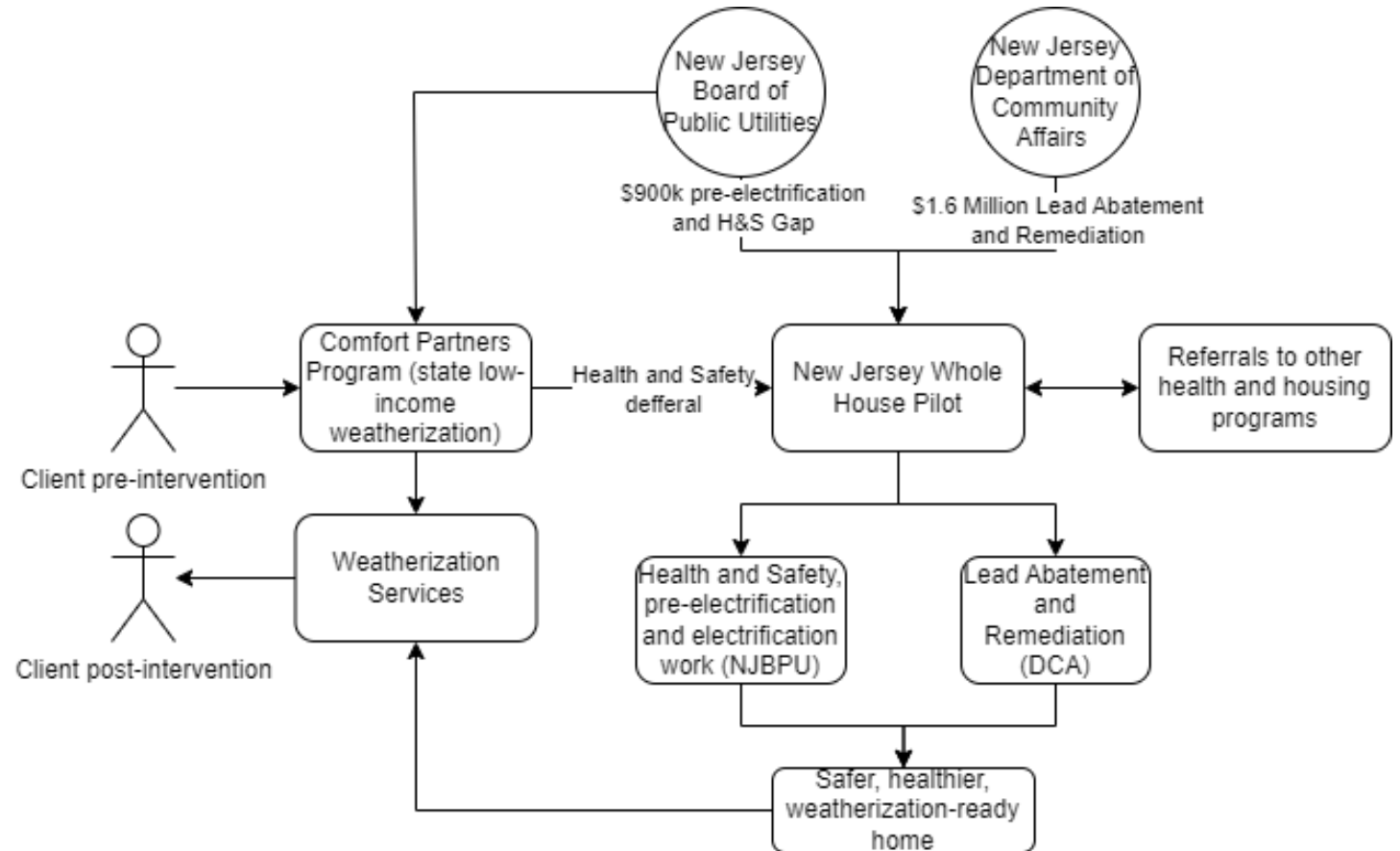
- › Evidence-based housing interventions
- › Support housing stability and affordability through lower energy burdens
- › Address lead and safety hazards and improve energy efficiency in 100 pilot homes using integrated model
- › Support transformative impacts, including economic stability, career advancement, and improved health outcomes through holistic housing interventions



New Jersey Whole House Program

Partnership with state weatherization service

- NJ Whole House (NJWHP) receives referrals directly from Comfort Partners, the state's weatherization program
- In partnership with Comfort Partners and the Board of Public Utilities, GHHA administers Health and Safety Repairs to make home weatherization ready
- NJ WHP braids Department of Community Affairs Lead Abatement dollars and coordinates or braids other healthy homes programs for client
- Client is referred back to Comfort Partners



Detroit Home Repair Fund

What is the Detroit Home Repair Fund?

The Detroit Home Repair Fund (DHRF) is a multi-sector investment to improve the housing conditions of Detroiters. Eligible families receive assistance in repairing health & safety-related hazards in their homes including roofs, windows, stairs, plumbing, HVAC systems, and more.

Funded By:



Managed By:



Green & Healthy Homes Initiative®



Administered through Detroit-based Community Development Organizations (CDOs):



Health and Housing in Detroit

Detroit's housing stock is aging and the community has experienced disinvestment

- Median year built: 1939
- An estimated 2-4 billion in repair costs
- 10.9% of Black households live in inadequate housing in metro Detroit compared to 2.8% of white households

Health conditions worsened by poor housing conditions

<u>Unintentional injury</u> <u>(per 10k)</u>	<u>Asthma Hospitalizations</u> <u>(per 10k)</u>	<u>Elevated Blood Lead</u> <u>Levels</u>
<ul style="list-style-type: none">• 63.7 Detroit City• 53.3 Wayne County• 42.9 Michigan	<ul style="list-style-type: none">• 5.8 white children• 31.9 Black children• 12.0 white adults• 40.8 Black adults	<ul style="list-style-type: none">• Detroit: 8% (children under 6)• Some zip-codes greater than 18%



Compounding layers of need

Single-family homes: largest share in Detroit when compared to other large cities

- Over 60% of homes are single-family detached in Detroit
 - 20% in Chicago
 - 10% in Baltimore

Population Characteristics

48.3% Home ownership	14.1% Age 65+	77.9% Black or African American
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- 32.9% householders in Detroit are age 65+ (U.S. Census).
- Avg age DHRF participant: 61

GHHI in Detroit

Detroit Home Repair Fund



11 Community Development Organizations



Training in whole home assessments, hazard prioritization, data management



Analysis of health outcomes through pre/post surveys



Leverage multiple funding streams



3 Years | 1,000 Homes | \$20 Million

Home Repair Task Force

42 Organizations



City-wide home repair coordination



GHHI Leadership in several subcommittees

Lead Advocacy

New State Law: Universal Lead Testing

City lead ordinance

Michigan Lead Prevention Fund

How does the Detroit Home Repair Fund help?

1

INTAKE/HEALTH QUESTIONNAIRE

CDO conducts basic intake, including collection of relevant health information

2

COMPREHENSIVE HOME ASSESSMENT

CDO performs home inspection

3

SCOPE OF WORK

CDO prioritizes repairs needs of the occupants

4

REPAIRS

CDO works with contractor(s) to have repairs completed

5

FOLLOW-UP HEALTH QUESTIONNAIRES

CDO administers at 3- & 6-months post repair

Expected Outcomes

\$20 million investment | 3 Years | 1,000 homes impacted



Lead to 4,000 changed lives for those residing in improved housing conditions.



Ensure that 600 children avoid lead exposure, which has an economic value of \$26.6M across healthcare, education, and criminal justice systems, individual earnings, and income tax revenue.



Reduce hospital use for asthma, saving \$3.5M in healthcare costs.



Improve the lives of 640 older adults, reducing fall risk and potential saving \$8.0M in healthcare costs.



Weatherize 800 homes, creating \$23.9M in benefits from utility bill savings and reduced thermal stress.



Create 102 career opportunities, including for individuals in underrepresented backgrounds in the sector.

Upcoming at GHHI


- › **Buildings Upgrade Prize (Buildings UP)**
 - Dept. Of Energy prize competition to develop a community-based electrification initiative
 - Working in East Baltimore to plan, pilot, and implement whole-home electrification, community engagement, and workforce development
- › **Thriving Communities Grant Making Program : Region 3 Capacity Building**
- › Support for implementation of **City of Milwaukee** ARPA funded of Lead Hazard Reduction and Energy Efficiency Coordination Demonstration Program

Questions?

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