

# Healthy & Energy Efficiency Breathe EEasy Breakout Session

## EE & Healthy Housing: Opportunities for Partnership

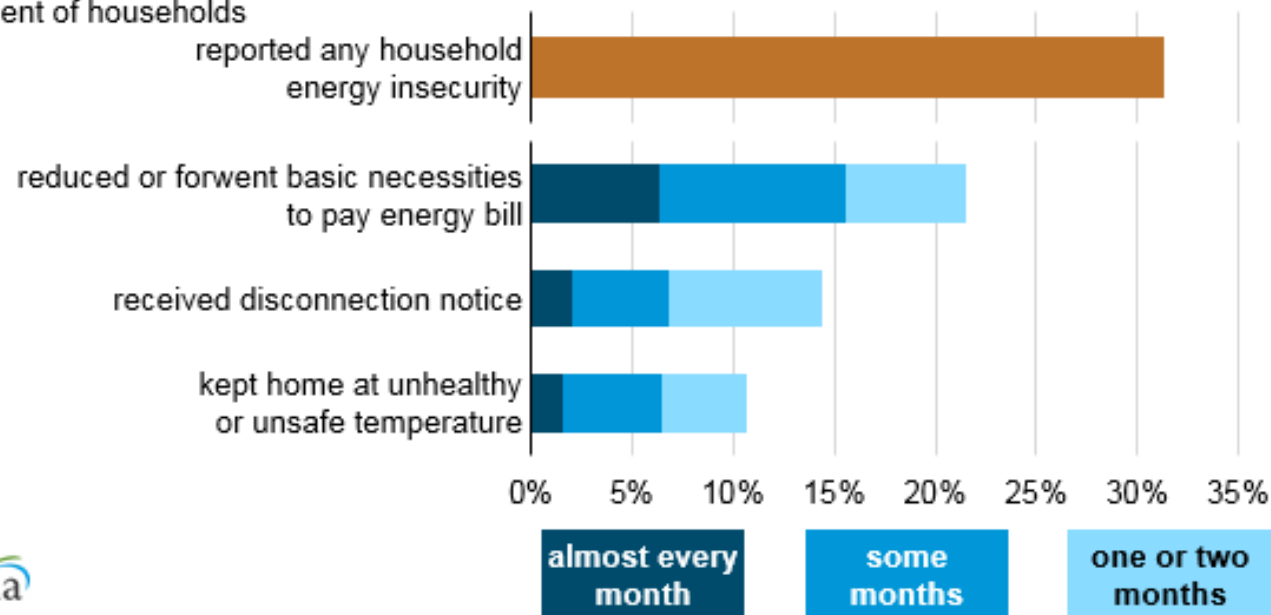
Midwest Energy Solutions Conference | February 27 | 3:30pm CT  
Presenter: Catherine Lee, AICP | Senior Site Engagement Specialist  
Green & Healthy Homes Initiative



# Family Impact of Energy Inefficiency

## One in three U.S. households faces a challenge in meeting energy needs

Households that experienced energy insecure situations, 2015  
percent of households



Source: U.S. Energy Information Administration, *Residential Energy Consumption Survey 2015*

- One in five households reduce or forgo necessities such as food and medicine to pay an energy bill
- 14% of households experience energy service disconnection annually
- 11% of households keep home at an unhealthy or unsafe temperature



# Efficiency, Health, & Extreme Weather

## 2019 Polar Vortex 27 deaths across 8 states

The INSIDE of my front door. 🥶 Indiana cold  
[pic.twitter.com/oQKcnHTO12](https://pic.twitter.com/oQKcnHTO12)  
♥ 3 9:39 AM - Jan 31, 2019



Family of nine in Wheeling,  
Illinois taken to local  
hospital after heating their  
home with a charcoal grill

# The Burden of Unhealthy and Energy Inefficient Homes

30M families live in unhealthy homes

Homes with environmental hazards are making their residents sick

14.4M missed days of school each year

Asthma is the top reason students miss school

14.2M missed days of work each year

Collateral burden of sick children is missed days of work for parents and caretakers

\$81B+ spent on asthma

\$31B+ spent on slip & fall injuries

\$50.9B+ spent on lead poisoning

Over \$100B in taxpayer funding is spent each year to address the impact of these hazards

Low income families spend 20% of monthly income on energy costs

VS.

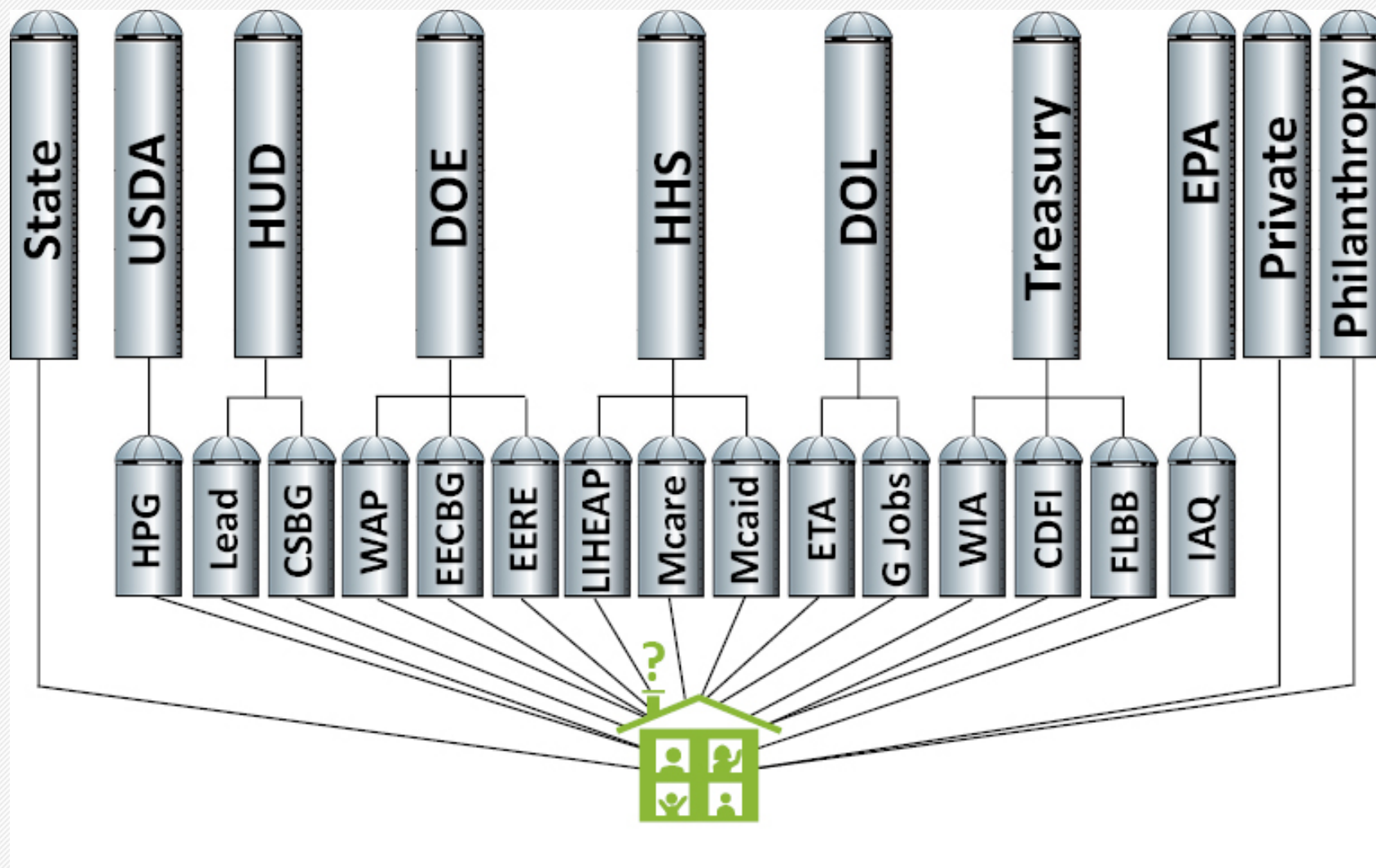
3.5% in other households



## GHHI Practical Experience & National Scaling



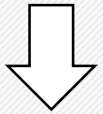
# Transforming a Fractured Service Delivery System



# The GHHI Model: No Wrong Door

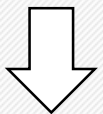
**Align**

services & funding



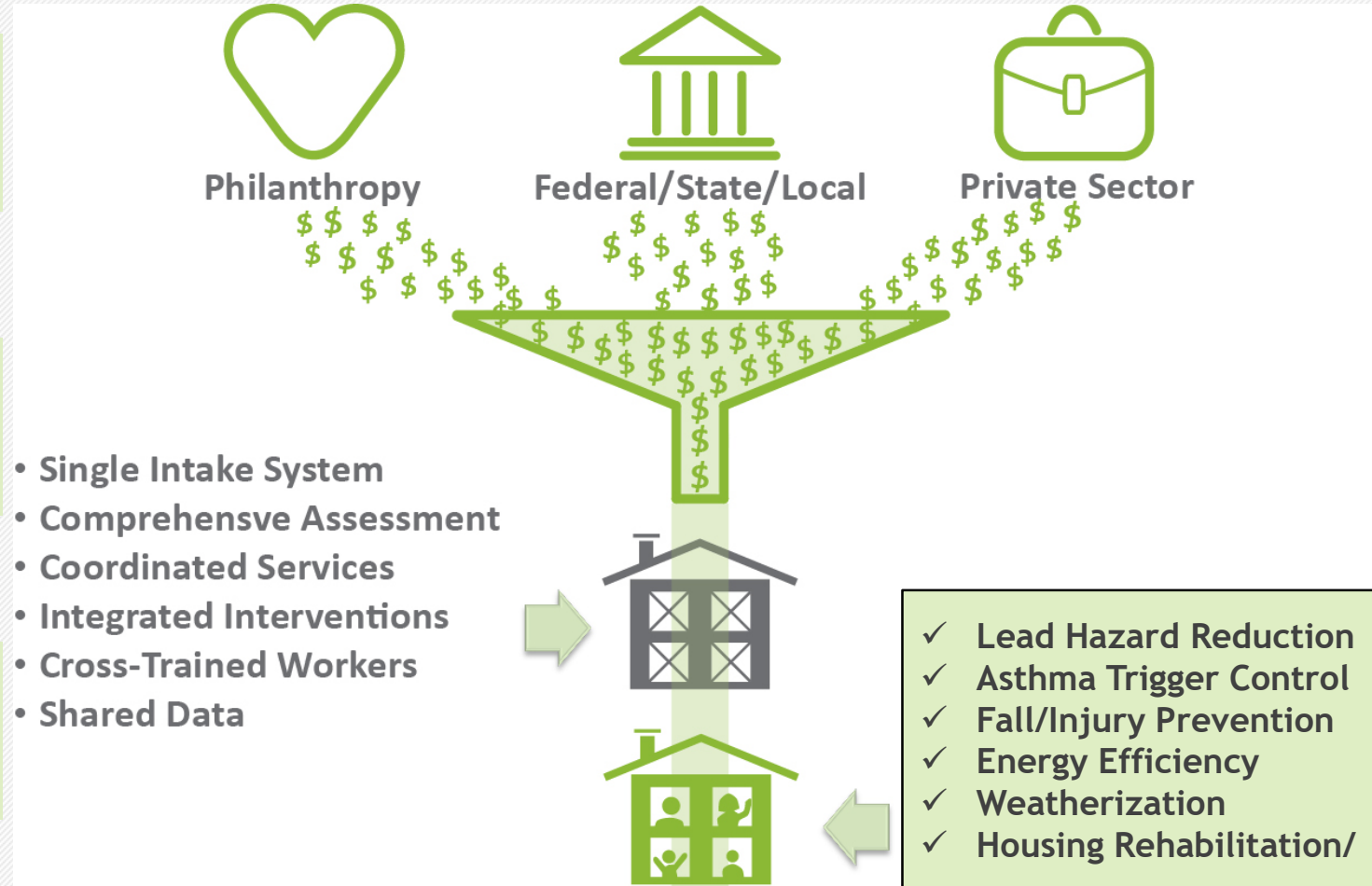
**Braid**

relevant resources

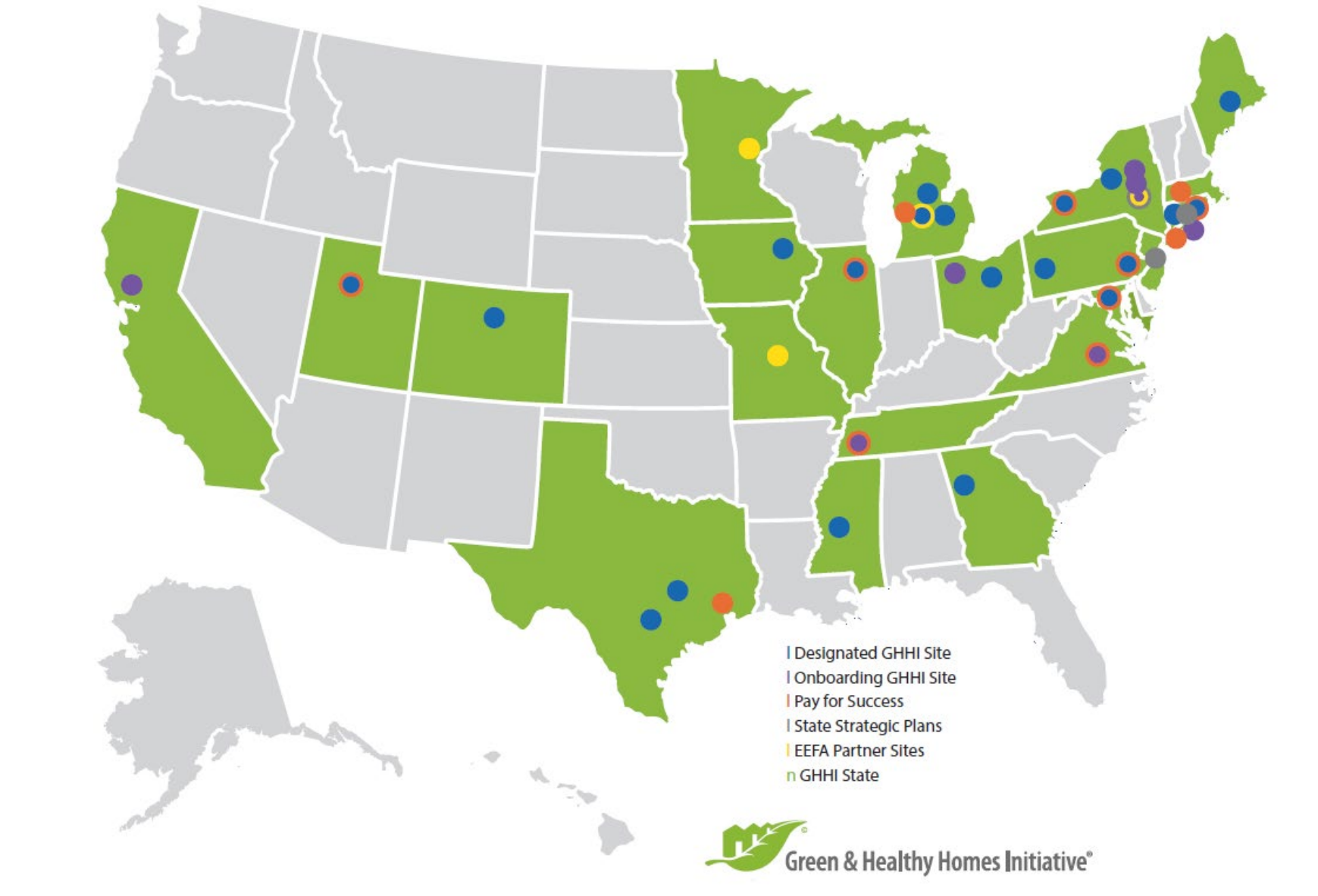


**Coordinate**

service delivery



# GHHI National Technical Assistance





# The Whole-Home Strategy:

## Assessors, Educators, and Crews Address Housing Issues Holistically

- Energy efficiency and weatherization
- Elimination of Lead Hazards
- Asthma Trigger Reduction
- Integrated Pest Management
- Mold and moisture remediation
- Injury prevention measures, including:
  - Carbon monoxide and smoke detectors
  - Cabinet locks and electrical outlet covers
  - Trip and fall reduction measures
- Radon, asbestos, and home-based env. hazard remediation





# The GHHI Differentiator: Cross-trained Teams

## Environmental Health Educator

- Conduct in-home resident education
- Coordinate pre and post client health surveys
- Coordinate follow-up client services

## Energy Auditor-Environmental Assessor

- Conduct pre-intervention environmental assessments
- Conduct energy audits
- Develop comprehensive scopes of work
- Conduct post-intervention quality control

## Multi-Functional Contractors

- Address the hazards identified on scopes of work
- Results in increased team capacity
- Exposes opportunity for job training and economic development for residents of low-income communities

***\*\*Center for Employment Opportunities study in Buffalo found that workers who were cross trained in weatherization and healthy homes skills were able to earn \$4-8 more per hour***



# The Strategy in Action for Cities:

## National Results

### GHHI Baltimore

- 66% reduction in asthma-related hospitalizations
- 62% increase in asthma-related perfect school attendance
- 88% increase in never missing work due to their child's asthma
- 99% decline in childhood lead poisoning in Baltimore City

### GHHI Philadelphia\*

- 70% fewer asthma-related client hospitalizations
- 76% fewer asthma-related client ED visits

### GHHI Cleveland\*\*

- 58% reduction in asthma-related client hospitalizations
- 63% reduction in asthma-related client ED visits

\*Philadelphia research work done by Philadelphia Department of Health

\*\*Cleveland research work done by Environmental Health Watch and Dr. Dearborn, Case Western Reserve University Medical School/University Hospitals



# Strategy in Action for Families:

## The Obianuka Family

### Pre-Intervention Situation:

- Homeowner family of five with a daughter who had severe asthma; average of 1 asthma related hospitalizations and 5 ED visits per year
- Conditions - Lack of kitchen and bathroom venting causing high moisture levels, mouse infestation and dust mites, chipping lead paint hazards; Lack of adequate heat due to needed furnace boiler replacement

**Costs: \$16,035 - Asthma Specific Costs: \$4,059**

**Partners:** Baltimore City Community Development Block Grant, the Maryland Energy Administration, and the Weinberg Foundation

### Results & Outcomes:

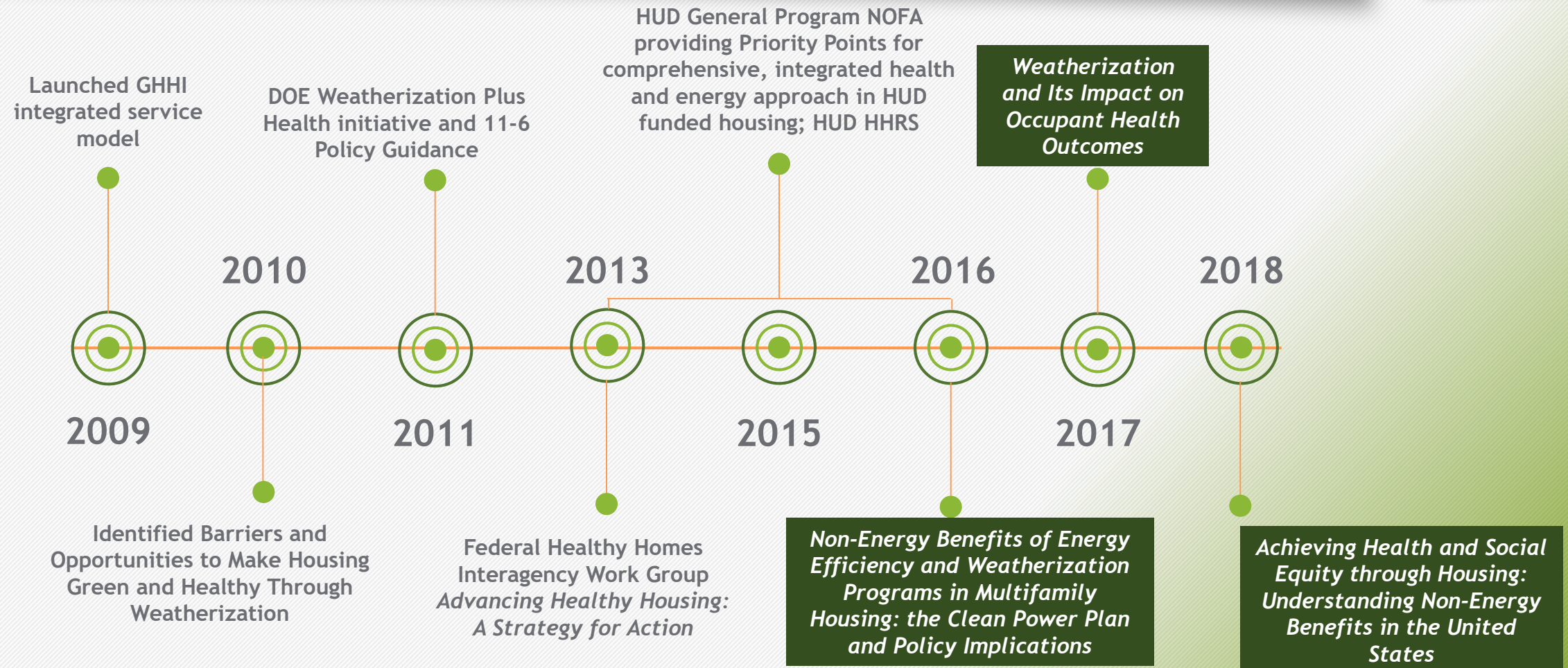
- Allergens and lead and safety hazards remediated; Home weatherized and boiler replaced;
- Daughter was not hospitalized nor did she go to the emergency room due to asthma episodes in the 12 months post-intervention
- Asthma symptom free days changed from 0 per month to 29 days per month
- Annual energy cost savings of \$407





# Applying Lessons to Research & Policy

## Quantifying the Non-Energy Benefits and Building Field Capacity







# The Pathways for Non-Energy Benefits

GHHI research shows that weatherization and healthy housing interventions can:

- Confer positive non-energy benefits at the individual and community levels
- Address social determinants of health and reduce health inequities
- Drive cost savings by improving economic, health and environmental outcomes
- Increase integration of programs and services, benefiting families, service providers and government agencies






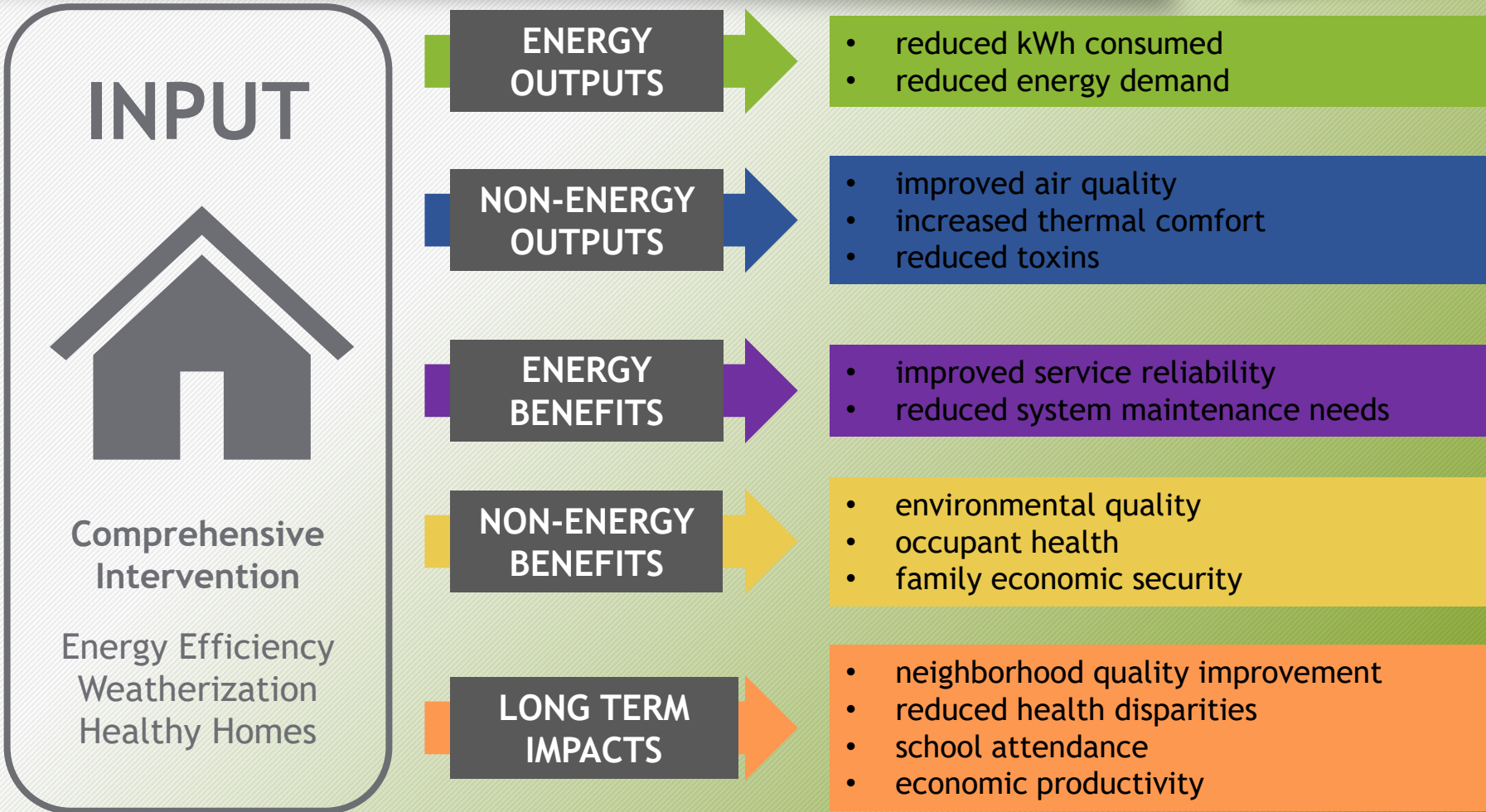


# Health Impacts of Weatherization

### Achieving Health and Social Equity through Housing:

Understanding the Impact of Non Energy Benefits in the United States



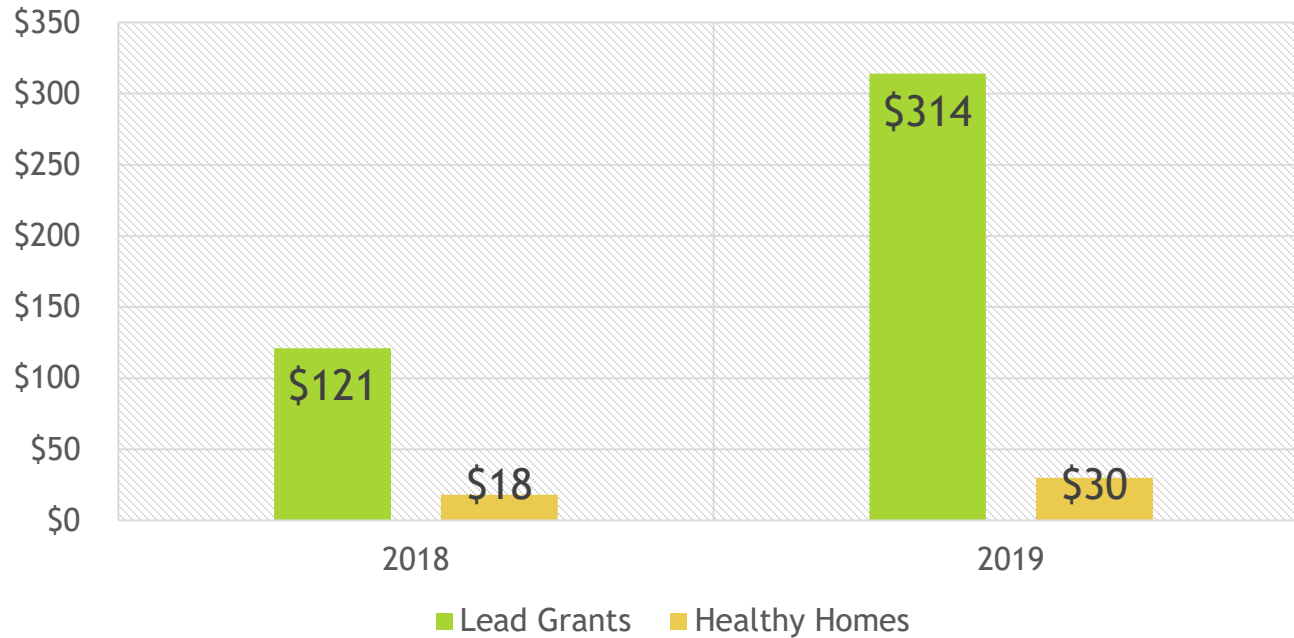




## Collaboration Opportunities for Energy + Health



## HUD OLHCHH RECENT LEAD & HEALTHY HOMES GRANT ALLOCATIONS BY YEAR (millions)



- 48 to 77 jurisdictions
- 7 “High Impact Neighborhoods” conduct lead hazard control and healthy homes work intensively in a targeted neighborhood
- Bonus points to further drive public investment in Opportunity Zones to leverage neighborhood revitalization efforts

## 2019 HUD Lead Hazard Reduction grants





### Benefits to WAP

- Reduced deferrals for health and safety hazards
- Lead hazard control programs can cover costs of:
  - Lead risk assessments
  - Lead hazard control
  - Lead supervisor/quality control
  - Lead clearance testing

## FUNDING BRAIDING MODELS

### Single Family

WAP + HUD LEAD + HUD  
HEALTHY HOMES  
SUPPLEMENTAL

### Multifamily (private)

WAP + HUD LEAD + HUD  
HEALTHY HOMES  
SUPPLEMENTAL

### Multifamily (public)

WAP + NON-HUD LEAD  
PROGRAM FUNDS

Federal funding sources for program alignment



# Partnering with Healthcare and Housing

## Medicaid/CHIP Innovations Funding Homes

### Michigan

- \$119 million in CHIP funds for lead hazard remediation and related services; workforce development

### Maryland

- \$14.4 million in CHIP funds for asthma trigger and lead hazard remediation

### Ohio & Indiana

- \$5 million (OH) & \$3 million (IN) CHIP funds for lead testing and remediation

### Missouri

- Medicaid funding allowable for Asthma resident education; Environmental assessment services

### Oregon

- Rule 1115 Waiver allowing for flexible services including asthma home visiting resident education

### Rhode Island

- Rule 1115 Waiver allowing for lead remediation

### Virginia

- Rule 1115 Waiver for asthma interventions



# Local Policies for Rental Housing

## Detroit to make changes to its rental registry ordinance due to limited compliance

*The city had hoped to bring all rentals into compliance in two years, but that timeline has proved unrealistic*

By **Sarah Alvarez** | Nov 8, 2019, 10:41am EST



Photo by **Michelle Gerard**

## Best Practices in Emerging Programs

- Registration of all rental properties
- Landlord education opportunities
- Ordinances focused on health, safety, and thermal regulation
- Inspections for enforcement of property maintenance codes & lead safety
- Proactive inspections, controls to curb evictions
- Funding support for non-capitalized landlords



# Call to Action

**Capitalize on the Opportunities to Integrate Energy, Health and Housing Sectors**

**Capture Broader Impact Data on Health, Social and Educational Outcomes to Justify Investments & Engage with Non-Traditional Partners**

**Develop Diverse Partnerships to Align Funding and Programs**

**Share Successful Models to Support Scaling of Best Practices**

**Support Local Policy Development for Property Maintenance that Mitigates Displacement**



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