Green & Healthy Homes Initiative

Ruth Ann Norton

June 23, 2015
Green & Healthy Homes Initiative

GHHI is dedicated to breaking the link between unhealthy housing and unhealthy families.

The GHHI model replaces stand-alone housing intervention programs with an integrated, whole-house approach that aligns resources, braids funding and coordinates partnerships to produce healthy, safe and energy efficient homes.

GHHI improves health, economic and social outcomes for low income children, families and seniors.
GHHI National Scaling

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www.ghhi.org
Healing a Fractured Delivery System
GHHI Process

National Efforts
- DOE, HUD, CDC, CMS
- Healthy Homes Work Group
- Strategy for Action

Funding Streams
- Federal
- State
- Private
- Philanthropy

Partners
- Single application
- Common eligibility
- Single audit, improvements, education and data
GHHI - A Model That Benefits Families

- Learning Network & Collaborative
- Single Intake System
- Comprehensive Assessment
- Coordinated Services
- Integrated Interventions
- Cross-Trained Workers
- Shared Data

Root cause remediation for:
- Indoor air quality
- Pest Management
- Mold/mildew/moisture
- Other environmental health triggers
## Coordinated Interventions Sample

<table>
<thead>
<tr>
<th>Green</th>
<th>Health &amp; Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Audit</td>
<td>Health &amp; Safety Assessment</td>
</tr>
<tr>
<td>Weatherization</td>
<td>Lead Hazard Reduction</td>
</tr>
<tr>
<td>Insulation</td>
<td>Asthma Trigger Reduction</td>
</tr>
<tr>
<td>Reducing Air Infiltration &amp; Leakage</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>Energy Efficiency Measures</td>
<td>Trip &amp; Fall Risk Reduction</td>
</tr>
<tr>
<td>Remediating Gas Leaks &amp; CO</td>
<td>Fire &amp; Injury Prevention Measures</td>
</tr>
<tr>
<td>Energy Efficiency Education</td>
<td>Health &amp; Safety Education</td>
</tr>
</tbody>
</table>
One Family’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 and furnace

Defective gutters = water leaks

Chipping paint = lead hazard

Broken tile = safety hazard

Broken ducts = higher heating bills

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A Solution Through Braiding

An integrated approach cost 25% less to implement ($12,057 vs $16,096), has kept DeWayne out of the hospital for asthma related visits, improved his school attendance and reduced the family’s monthly heating bills – and helped his mother achieve as well.

- Remove old carpets
- Remediate mold, install dehumidifier
- Install Energy Star windows
- Install furnace and hot water heater
- Replace broken gutters
- Stabilize chipping paint
- Resurface uneven floors
- Seal ducts, blow insulation

HUD (HHDP)
Philanthropy
DOE (WAP)
## Healthy Homes Demonstration Project

### Mean Change and Percent Reduction of Key Outcomes

200 units completed with 139 respondents completing 6 month post intervention health surveys

<table>
<thead>
<tr>
<th>In the past 6 months (N=139)</th>
<th>Intake Mean (StdDev)</th>
<th>6 Month Mean (StdDev)</th>
<th>Pre Post Mean Change (StdDev)</th>
<th>One-sided t test</th>
<th>Percent Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalizations</td>
<td>0.364288 (0.923013)</td>
<td>0.141791 (0.53667)</td>
<td>0.238806 (0.824248)</td>
<td>0.0008</td>
<td>65.5%</td>
</tr>
<tr>
<td>ER Visits</td>
<td>0.942857 (1.22193)</td>
<td>0.701493 (1.097022)</td>
<td>0.261194 (1.250137)</td>
<td>0.015</td>
<td>27.7%</td>
</tr>
<tr>
<td>Physician Visits</td>
<td>1.76258 (1.462491)</td>
<td>1.340909 (1.413293)</td>
<td>0.389313 (1.460098)</td>
<td>0.002</td>
<td>22%</td>
</tr>
<tr>
<td>Calls to Physicians</td>
<td>2 (1.498792)</td>
<td>1.481203 (1.490381)</td>
<td>0.515152 (1.565296)</td>
<td>0.0002</td>
<td>26%</td>
</tr>
<tr>
<td>Work days missed</td>
<td>2.76259 (1.954492)</td>
<td>1.736842 (1.85413)</td>
<td>1.037879 (2.057959)</td>
<td>0.0000</td>
<td>37%</td>
</tr>
<tr>
<td>School/ daycare missed</td>
<td>2.372093 (2.008069)</td>
<td>1.787402 (2.091669)</td>
<td>0.647059 (1.998254)</td>
<td>0.0002</td>
<td>27%</td>
</tr>
</tbody>
</table>

*Environmental Justice, Vol 7. Number 6, 2014*
Impact: Building a Business Case

Green & Healthy Homes Initiative: Improving Health, Economic and Social Outcomes Through Integrated Housing Intervention

- 66% reduction in asthma-related client hospitalizations
- 28% reduction in asthma ER visits
- 50% increase in participants never having to visit the doctor’s office due to asthma episodes
- 62% increase in participants reporting asthma-related perfect attendance for their child (0 school absences due to asthma episodes)
- 88% increase in participants reporting never having to miss a day of work due to their child’s asthma episodes

Environmental Justice, Vol 7. Number 6, 2014
The Full Conversation

Green & Healthy Homes Initiative

& Family Health

& Energy Efficiency

& Housing Affordability

& Education Outcomes

& Public Sector Innovation

& Opportunity
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
Project Timeline

Month 1
- Asset/Gap Analysis
- Identify Learning Network

Month 2
- Develop and Implement Work Plan

Month 3
- Convene Learning Network
- Single Intake Portal
- Begin Home Assessments, Integrated Interventions

Month 4
- Develop Data and Evaluation Plan

Month 5
- Interview and Select Outcome Broker

Month 6
- Compact Signing

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Questions?

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