Washington’s Weatherization Plus Health Program

Michael Furze
Assistant Director, Energy Division
Washington State Department of Commerce
We strengthen communities

The Department of Commerce touches every aspect of community and economic development. We work with local governments, businesses and civic leaders to strengthen communities so all residents may thrive and prosper.
Weatherization Plus Health Benefits

Achieving Health and Social Equity through Housing:
Understanding the Impact of Non Energy Benefits in the United States

Home RX: The Health Benefits of Home Performance
A Review of the Current Evidence

Ely Jacobs, DOE
Nancy Reddy, NCHH
Shawn Talon, Talon Environmental Strategies
Jonathan Cohen, US Department of Energy (DOE)
December 2016

An E4The Future, Inc. White Paper

Department of Commerce
Where We Have Been

1/1/2006 - 12/21/2013
Opportunity Council HUD Healthy Homes

6/30/2009 - 6/30/2012
King County Wx+H Pilot

4/1/2016 - 7/1/2017
Legislature MM Wx+H Authorized

6/30/2015
Wx+H Enhanced Pilot

7/30/2018 - 6/30/2019
Wx+H Round 2

Jan 06 - Dec 19
Today
4/1/2016 - 7/1/2017
Wx+H Enhanced Pilot

6/30/2018 - 6/30/2019
Wx+H Round 2

Jan-19 - Apr-19
2019 Legislative Session
# Low-Income Weatherization in Washington

<table>
<thead>
<tr>
<th>Weatherization</th>
<th>Plus Health</th>
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<tbody>
<tr>
<td><strong>$20-25 Million</strong></td>
<td><strong>$1.4 Million</strong> 2018-2019</td>
</tr>
<tr>
<td><strong>2,500-3,000 unit/year</strong></td>
<td><strong>2.3 Million Wx+H Pilot</strong></td>
</tr>
<tr>
<td><strong>28 Agencies</strong></td>
<td><strong>+250 units</strong> Additional Wx+H Measures</td>
</tr>
<tr>
<td><strong>8 Pilot Agencies</strong></td>
<td><strong>15 Agencies</strong></td>
</tr>
</tbody>
</table>
Where are we headed?

Build more relationships with local medical community

Develop approaches for integrating Wx+H services

Show the benefits of integrated Wx+H services

Increase capacity to deliver services

The vision is clear
What does it look like?

**Wx+Health**
- Mold remediation
- Advanced ventilation
- Pest & dust mite remediation
- Walk-off mats • Carpet removal
- Accessibility • Resident education
- Asbestos, lead & radon remediation

**Basic Weatherization**
- Insulation • Space heating • Water heating
- Air sealing • Windows/doors • Basic ventilation
- Programmable thermostats • Carbon monoxide monitors
- Evaluate presence of moisture & mold • Combustion safety

Wx+Health builds on basic weatherization strategies

Courtesy of Vermont Department of Health, Weatherization + Health, 2018
# Weatherization + Health - Program Components

<table>
<thead>
<tr>
<th>Traditional Weatherization</th>
<th>Education</th>
<th>Additional Healthy Homes Measures ($4000+)</th>
<th>Client Support Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>New heating systems or repairs</td>
<td>Energy and Healthy Homes Education</td>
<td>Hard Surface Flooring</td>
<td>Filtered (HEPA) vacuum</td>
</tr>
<tr>
<td>Increased ventilation</td>
<td>Condition specific health education (CHW)</td>
<td>Duct cleaning or deep cleaning</td>
<td>Green Cleaning Kits</td>
</tr>
<tr>
<td>Insulation</td>
<td>Advanced ventilation</td>
<td>Mattress dust-mite covers</td>
<td>Mattress dust-mite covers</td>
</tr>
<tr>
<td>Air Sealing</td>
<td>Roofs, repairs, mold abatement, and plumbing</td>
<td>Air filters</td>
<td>Humidity gauges (CHW)</td>
</tr>
<tr>
<td>Low Cost (pipe wrap, showerheads, lighting)</td>
<td></td>
<td>Medication Spacers/Nebulizers (CHW)</td>
<td>Medication Spacers/Nebulizers (CHW)</td>
</tr>
</tbody>
</table>

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**Results: Leveraging Weatherization Services**

### WX+H INSTALLED MEASURE COSTS BY FUND SOURCE

<table>
<thead>
<tr>
<th></th>
<th>Enhanced</th>
<th>Basic</th>
<th>MM</th>
<th>LIHEAP</th>
<th>DOE</th>
<th>BPA</th>
<th>Utility</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPREHENSIVE M=$13,972</td>
<td>22%</td>
<td>16%</td>
<td>22%</td>
<td>11%</td>
<td>4%</td>
<td>22%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>HH ONLY M=$3,288</td>
<td>88%</td>
<td>1%</td>
<td>2%</td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOW COST HH</td>
<td>84%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3%</td>
</tr>
</tbody>
</table>

**LOW COST HH**

- Enhanced: 84%
- Basic: 3%
- Utility: 14%

**COMPREHENSIVE M=$13,972**

- Enhanced: 22%
- Basic: 16%
- Utility: 1%
- Other: 2%

**HH ONLY M=$3,288**

- Enhanced: 88%
- Basic: 1%
- Utility: 2%
- Other: 9%

**LOW COST HH**

- Enhanced: 84%
- Basic: 3%
- Utility: 14%
Initial Results Are Promising

Taking Action
86% of households getting follow up home assessments reported taking 2 or more actions to reduce environmental triggers.

Respiratory Control
65% reported improvement (47% significant improvement in ACT scores). The percentage of those with respiratory issues conditions under control went from 42% to 67%.

Quality of Life
70% Reported an improvement in Quality of Life as measured by AQLQ and CCQ (38% of improvements were significant).

Fewer Medical Visits
One year after initial services, study participants reported 4 fewer urgent care visits, 15 fewer ER visits, and 6 fewer hospital admissions.
What worked?

**Basic Weatherization**
- Primary focus is energy efficiency measures.
- All projects and measures meet energy efficiency cost effectiveness tests.
- Modest allowances for health, safety and repairs needed to complete project.
- Prioritization based on income, energy burden, age and disability.

**Wx+H 1.0**
- Additional funding and assessment for support healthy homes measures.
- Energy efficiency cost effectiveness requirements and repair and H+S caps relaxed.
- Limited healthy homes education to address environmental “building” triggers.
- Client health needs are included in prioritization.

**Wx+H 2.0**
- Client health needs are a primary driver.
- Client case management focuses on coordinated services.
- Wx is a service provided to some households.
- Education and behavioral interventions.
- Strong community and medical or public health partners to deliver behavioral interventions.
Can This Model be Replicated?

1. Need to do something different
2. Pioneers to lead the effort
3. Willingness and leadership to do something different
4. Flexible Funding
The Future

Near

- Continuation funding from for 18/19 biennium, approved but less than pilot (All 8 grantees continuing to provide services, and 7 new agencies)
- Continue to leverage federal funds and increase state funding
- Continue to assess opportunities for flexibility with current program funding

Farther

Document health impacts for funders and make Wx+H 1.0 services available statewide

Farthest

Build capacity with weatherization and community health providers to move program to a Wx+H 2.0 model.
Resources and References


Presented by:

Michael Furze
Washington State Department of Commerce
(360) 725-2950
Michael.furze@commerce.wa.gov