THE IMPACT OF HOUSING QUALITY ON HEALTH

Office of Lead Hazard Control and Healthy Homes (OLHCHH)

U.S. Department of Housing and Urban Development (HUD)
What is OLHCHH?

- The Office of Lead Hazard Control and Healthy Homes (OLHCHH) is an office within the Department of Housing and Urban Development (HUD) that protects children and families from health and safety hazards in housing.

- The Office was established in 1991 as the Office of Lead Based Paint Poisoning Prevention.

- 5 Divisions:
  - Programs Division
  - Regional Management and Technical Services Division
  - Lead Programs Enforcement Division
  - Grant Services Division
  - Policy and Standards Division
HUD’s Mission and Strategic Goals

Mission

To create strong, sustainable, inclusive communities and quality affordable homes for all.

Strategic Goals

- Strengthen the Nation’s housing market
- Provide quality affordable rental homes
- Use housing as a platform to improve quality of life
- Build inclusive and sustainable communities
- Transform the way HUD does business

(HUD, 2014, Strategic Plan 2014-18)
OLHCHH’s Mission, Vision, and Goals

**Mission**
To help all Americans, but especially children and other vulnerable populations in low-income households, reach their full potential by making homes safe and healthy.

**Vision**
To lead the nation to a future where homes are both affordable and designed, constructed, rehabilitated, and maintained in a manner that supports the health and safety of occupants.

**Goals**
- Building a National Framework
- Creating Healthy Housing through Key Research
- Mainstreaming the Healthy Homes Approach
- Enabling Communities to Create and Sustain Healthy Homes

(OLHCHH, 2009, Healthy Homes Strategic Plan)
What is Unhealthy Housing?

Housing Problems

- Lead
- Pests
- CO
- Mold
- VOCs
- Noise
- Radiation
- Asbestos
- Entry by Intruder
- Falls
- Electrical hazards
- Fire
- Flames etc.
- Collision & entrapment
- Explosions
- Ergonomics
- Numerous Health Hazards

Health Effects

- Lead poisoning, which causes:
  - Health problems
  - Hyperactivity
  - Reduced IQ
  - Behavioral Problems
  - Learning Disabilities
- Asthma
- Cancer
- Unintentional Injuries
- Other Health Impacts

Economic Impacts

Costs to the Individual

- School absenteeism
- Academic failure
- Learning difficulties
- Lack of employment
- Life-long health problems
- Socialization problems
- Criminal record

Costs to Society

- Healthcare
- Hospitalization
- Joblessness
- Special education
- Juvenile and criminal justice

(Based on: OLHCHH, 2014, Healthy Homes Rating System Operating Guidance; Loyola University 2015)
## Housing Problems

These are some examples of housing problems surveyed in the American Housing Survey:

<table>
<thead>
<tr>
<th>Signs of rats</th>
<th>Signs of mice</th>
<th>Signs of cockroaches</th>
<th>Holes in floors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open cracks or holes (interior)</td>
<td>Broken plaster or peeling paint (interior)</td>
<td>No electrical wiring</td>
<td>Exposed wiring</td>
</tr>
<tr>
<td>Room without electric outlets</td>
<td>Flush toilet breakdowns</td>
<td>Heating problems</td>
<td>Electric fuses or breakers blown</td>
</tr>
<tr>
<td>Water supply stoppage</td>
<td>Water leaks</td>
<td>Exterior building condition problems</td>
<td>Sewage disposal breakdowns</td>
</tr>
</tbody>
</table>

*(HUD & Census, 2013, American Housing Survey)*
Hazards

These are the health and safety hazards examined by the Healthy Homes Rating System:

- Damp & Mold Growth
- Cold
- Heat
- Asbestos and man-made fibers
- Biocides
- Carbon Monoxide et al.
- Lead
- Radiation
- Uncombusted fuel
- Volatile organic compounds
- Crowding and Space
- Entry by Intruders
- Lighting
- Noise
- Domestic Hygiene etc.
- Food Safety
- Personal Hygiene
- Water Supply
- Falls in baths etc.
- Falls on the level
- Falls on stairs etc.
- Falls from windows etc.
- Electrical hazards
- Fire hazards
- Hot surfaces etc.
- Collision/Entrapment
- Ergonomics
- Explosions
- Structural collapse

(OLHCHH, 2014, Healthy Homes Rating System Operating Guidance)
Health Effects

Health and safety hazards trigger, worsen, or cause a wide range of health effects. Here are some of the most prevalent housing-related health effects:

- Asthma & allergies
- Cancer
- Lead poisoning
- Unintentional injuries
- Death
- Depression
- Anxiety
- Cardiovascular conditions
- Arthritis
- Respiratory conditions
- Genitourinary disease
- Unconsciousness
- Cognitive impairment
- Headaches
- Mental disorders
- Gastrointestinal illness
- Skin infections
- Neurological problems
- Mental retardation
- Behavioral problems

(OLHCHH, 2014, Healthy Homes Rating System Operating Guidance)
Economic Impacts

Health and safety hazards impose a considerable economic burden on Americans living in unhealthy housing and on society as a whole.

(See Gould, 2009; Trasande & Lui, 2011; Loyola University 2015)
Multiple Impacts

Housing problems cause a ripple effect of impacts.

Here is an example of how a single housing problem can lead to multiple health effects and economic impacts:
Why Does Our Work Matter?

• It helps children and other vulnerable populations reach their full potential by
  • Preventing injuries and diseases;
  • Lowering healthcare costs;
  • Increasing school and work performance; and
  • Decreasing the number of school and work days missed due to injuries and diseases.

• It frees up family expenses that would have been spent on healthcare for other critical needs, such as rent or nutritious food.

• It saves money and lives.
  • Studies have shown that lead and healthy homes interventions are effective and are more cost-effective than conventional maintenance.

(See Maqbook et al., 2015; Gould, 2009)
For every $1 spent on asthma reduction programs\(^1\)

For every $1 spent on lead hazard control programs\(^2\)

For every $1 spent on radon mitigation programs\(^3\)

Inputs

Return On Investment (ROI)

…there is a return of between $5.30 and $14.00.

…there is a return of between $17 and $221.

…there is a return of $4.95.

Outcomes

- Reduced healthcare costs
- Increased school attendance
- Increased employment attendance
- Increased income due to attendance
- Fewer deaths

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1. (Nurmagambetov et al., 2011)
2. (Gould, 2009)
3. (Healthy Housing Solutions, 2014)
What Does OLHCHH Do Now?

Grants for Producing Lead-Safe and Healthy Housing Units
• OLHCHH provides and monitors funding to states and local governments to produce lead-safe and healthy housing units

Technical Studies Grants (a.k.a. Research Grants)
• OLHCHH provides and monitors funding to grantees to research methods, costs, and health benefits of making homes safe and healthy

Enforcement
• OLHCHH enforces the Lead-Based Paint Disclosure Rule and works with HUD program offices on compliance with the Lead Safe Housing Rule

Guidance and Performance Criteria
• OLHCHH develops and promotes development of healthy homes guidance and performance criteria

Outreach
• OLHCHH provides education and outreach to homeowners, tenants, and stakeholders on how to make homes safe and healthy
OLHCHH Grant Programs

• **Grants for Producing Lead-Safe and Healthy Housing Units**
  • 2 grant programs:
    • Lead Based Paint Hazard Control Grants
    • Lead Hazard Reduction Demonstration Grants
  • Grantees (“Lead & Healthy Homes Grantees”)
    • Grantees of these programs are state, local, or tribal governments.

• **Technical Studies Grants (a.k.a. Research Grants)**
  • 2 grant programs:
    • Healthy Homes Technical Studies Grants
    • Lead Technical Studies Grants
  • Grantees (“Technical Studies Grantees”)
    • Grantees are academic institutions and state, local, and tribal governments.
Grantee Program Impact

- Visible Evidence
- Policy
- Political Engagement
- Advocacy
- Capacity
- Data/ Evidence Base
Building Community Value

• Completed units, happy customers
• Capacity
  • Train housing inspectors, code officials, home visitor programs, contractor pools
• Data/Evidence Base
  • Design program intake to collect key variables that can be reported together to show impact and need, share and data match to show scope and scale
• Advocacy
  • School
  • Health Care Providers
  • Insurance Programs
Building Community Value cont.

- Political Engagement
  - Show the Units
  - Show the numbers of what is left to be done and who is at risk or impacted now
  - Provide best practice solutions to sustain efforts beyond the grant-think bigger than grant money

- Policy
  - Policy that protects and identifies units that are at risk, unassessed, unmediated target housing.
  - Fee for service programs, rental licensing programs
Assess Gaps and Drive Component Programs

Common Gaps in Grant Programs: BL Testing, Capacity, Data incomplete or not reportable, policy development and partner skills, gap partners to cover non lead cost/needs

Some possible partners to fill gaps: Medical and Nursing Schools, American Society of Home Inspectors, Community Benefits Program, Pay For Success, Medicaid Waiver HSI program opportunities, National Outreach Campaigns
Our Lead & Healthy Homes Grantees

- Currently, there are **128** active lead and healthy homes grantees representing all **10** HUD Regions
  - Active grants nationwide in 34 states totaling $407,177,389.60 at work in communities.

- Since 1993, our grantees have made over 190,000 housing units lead-safe or healthy for residents.

- Amount of current funding awarded > $400 million

*The states shaded in pink are states with active lead hazard control or healthy homes grants. Many states have more than one active grant.*

(Healthy Homes Grant Management System data pull, 12/1/2015)
## Hazards Identified by Lead & Healthy Homes Grantees

*Of the 6,588 units completed by our lead and healthy homes grantees in FY15...*

<table>
<thead>
<tr>
<th>Type of hazard addressed</th>
<th># of housing units in which type of hazard was addressed</th>
<th># in target population benefiting from intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>6,588 housing units¹</td>
<td>6,537 children under 6 lived² in housing units where lead hazards were addressed.</td>
</tr>
<tr>
<td>Asthma and Allergy</td>
<td>1,588 housing units¹</td>
<td>2,948 children under 18 lived in housing units where asthma and allergy hazards were addressed.</td>
</tr>
<tr>
<td>Unintentional Injury</td>
<td>1,516 housing units¹</td>
<td>6,293 adults and children lived in housing units where unintentional injury hazards were addressed.</td>
</tr>
</tbody>
</table>

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1. (Healthy Homes Grant Management System data pull and analysis; in some cases, a multiplier was used to ensure consistency with previously reported data)
2. For purposes of this slide, “lived” includes visiting children under 6.
Healthy Home Basics App

Everyone deserves a safe and Healthy Home- OLHCHH launched a comprehensive app to engage consumers and stakeholders to take first steps towards making their home safe and healthy.

[App screenshot]

Download on the AppStore

[Android download button]
Three new infographics were added to our website to further visualize healthy homes activities for consumers- Check them out online now!
National Healthy Homes Month

Healthy Homes: Just What the Doctor Ordered!
2017 National Healthy Homes Month!
Lead Based Paint Abatement: Before and After
Lead Based Paint Abatement: Before and After
Healthy Homes Intervention: Before
Healthy Home Intervention: After
References


References (Cont.)


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References (Cont.)


• Oster, Colditz, & Kelley. 1984. National Cancer Institute statistics of 14,400 annual radon lung cancer deaths
