

Environmental Law Institute State IAQ Workshop

HUD Office of Lead Hazard Control
and Healthy Homes

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US Dept Housing & Urban Development

The United States Department of Housing and Urban Development (HUD) is responsible for overseeing the nation's housing and community development policies

HUD has embraced “health in all policies” approach

Annual budget of approximately \$70 billion

Medium-sized agency

Is HUD a health agency? Not exactly, but...



HUD's Mission and Vision

HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all

HUD Strategic Goals (FY 2022-2026)

- 1- Support Underserved Communities
- 2- Ensure Access to and Increase the Production of Affordable Housing
- 3- Promote Homeownership
- 4- Advance Sustainable Communities
- 5- Strengthen HUD's Internal Capacity



HUD Housing Assistance Programs

Public Housing (PH), Housing Choice Voucher (HCV) and Multifamily (MF)
10 million individuals receive assistance in 4½ million housing units; 4 million children

Housing assistance is not an entitlement: Housing assistance does not serve everyone who is eligible. Only one quarter of those eligible actually receive assistance.

Elderly and disabled make up over half of tenant households

Housing expenses crowd out other expenses

Program Eligibility: Citizenship, gross income, and household size

Race/Ethnicity: 64% Minority; 17% Hispanic



HUD's FY22- 25 Strategic Plan

Strategic Goal 4: Advance Sustainable Communities

Advance sustainable communities by strengthening climate resilience and energy efficiency, promoting environmental justice, and recognizing housing's role as essential to health.

4A: Invest in Climate Resilience and Carbon Reduction

Invest in climate resilience, energy efficiency, and renewable energy across HUD programs.

☆ 4B: Strengthen Environmental Justice

Reduce exposure to health risks, environmental hazards, and substandard housing, especially for low-income households and communities of color.

4C: Integrate Healthcare and Housing

Advance policies that recognize housing's role as essential to health.

Strategies under Strategic Objective 4B

Under Strategic Objective 4B, Strengthen Environmental Justice, are several Strategies:

- Increase community awareness of lead & other health & safety hazards in homes.
- Align and enforce HUD-assisted housing inspections and mitigation measures.
- Continue to prioritize comprehensive reductions in Americans' exposure to lead.
- Minimize residential radon exposure.
- Update HUD's environmental review regulations and policies.
- Target lead and healthy homes programs through data quality improvements.
- Leverage HUD's relationships with stakeholders.
- Advance the Federal research agenda on effects, evaluations, and control of lead and other health and safety hazards in housing.



What is the OLHCHH?

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

In addition to the Immediate Office of the Director, the OLHCHH has 5 divisions:

Programs Division

Program and Regulatory Support Division

Policy and Standards Division

Grant Services Division

Business Operations Division



8 Principles of Healthy Homes

The Eight Principles of a Healthy Home

HUD's Office of Lead Hazard Control and Healthy Homes defines [Eight Principles of a Healthy Home](#).

1 Keep it dry:

Prevent water from entering the home through leaks in roofing systems, prevent rainwater from entering the home due to poor drainage, and check interior plumbing for any leaking.



@Keep it pest-free:

All pests look for food, water, and shelter. Seal cracks and openings throughout the home; store food in pest-resistant containers. If needed, use sticky-traps and baits in closed containers, along with least-toxic pesticides such as boric acid powder.



9 Keep it clean: Control the source of dust and contaminants,

by creating smooth and cleanable surfaces, reducing clutter, and using effective wet-cleaning methods.



6 Keep it contaminant-free:

Reduce lead-related hazards in pre-1978 homes by fixing deteriorated paint and keeping floors and window areas clean

using a wet-cleaning approach. Test the home for radon, a naturally occurring dangerous gas that enters homes through soil, crawlspaces, and foundation cracks. Install a radon removal system if levels above the EPA action level are detected.



3 Keep it safe:

Store poisons out of the reach of children and properly label. Secure loose rugs and keep children's play areas free from hard or sharp surfaces. Install smoke and carbon monoxide detectors and keep fire extinguishers on hand.



7 Keep it well maintained:

Inspect, clean, and repair the home routinely. Take care of minor repairs and problems before they become large repairs and problems.



4 Keep it well ventilated:

Ventilate bathrooms and kitchens and use whole-house ventilation for supplying fresh air to reduce the concentration of contaminants in the home.



-Keep it thermally controlled:

Houses that do not maintain adequate temperatures may place the safety of residents at increased risk from exposure to extreme cold or heat.



These Funds Transform Communities and Support Research

- Lead Hazard Reduction Grant Program (LHR)
- The Healthy Homes Production Program (HHP)
- Older Adult Home Modification (OAHMP)
- Healthy Homes and Weatherization grant program (HHWCD)
- Radon Testing and Mitigation grant program
- Lead and Healthy Homes Technical Studies grants programs (LTS and HHTS)



BEFORE



AFTER

Lead & Healthy Homes Technical Studies Grant Program

HUD OLHCHH

Purpose

Lead Technical Studies

- Evaluation of the effectiveness of specific residential lead hazard control interventions.
- Studies of soil treatments to reduce lead bioavailability
- Analysis of available data and databases.

Healthy Homes Technical Studies

- Developing cost-effective methods for preventing/controlling mold and excess moisture
- Injury prevention measures
- Implementing indoor environmental interventions to improve asthma mgmt.



OLHCHH TECHNICAL STUDIES

- 50** active lead and healthy homes technical studies grantees in **22** states
- Open to public and higher education institutions, and nonprofit firms
 - Amount of current funding awarded: > \$30 M

The studies address key issues such as:

- Cost effectiveness of home asthma interventions
- Potential health benefits of green construction/rehab
- Integrated Pest Management (IPM) approaches to controlling bedbugs and cockroaches in low-income multifamily housing
- Studying the impact of energy upgrades on indoor environmental quality

(Healthy Homes Grant Management System data pull, 5/23/2022)

Examples of Supported Research In-Progress

Pest Management

- NC State U. + VA Tech U.: Are conducting separate implementation research studies of cockroach control in public housing in Baltimore and in urban and rural housing in NC
- Rutgers University: Assessing comparative efficacy of 3 approaches to mouse control in multifamily housing, including the impact on mouse allergen levels.
- Puerto Rico Science, Technology & Research Trust. Mosquito Screens and Dengue Prevention in Puerto Rican Housing
- University of South Dakota. Assessing the risk of emerging infectious disease transmission by bed bugs.

Lead in Water Assessment

- University of Iowa. Healthy homes need healthy water: Developing and implementing a lead in drinking water assessment tool.

Lead in Dust

- Quan Tech, Inc. Evaluation of Floor Dust Sampling for Lead Clearance Testing at 10 μ g/ft².

Examples of Supported Research In-Progress

Mold

- U of Tulsa: Validating a DNA-Based Mold Classification Tool for Assessing Remediation Clearance.
- Berkeley Air Monitoring Group: Characterizing indoor air quality improvements associated with electric heating, cooking, and filtration appliance.

Home Asthma/COPD Interventions

- National Center for Healthy Housing, Inc. Passive House Asthma Mitigation by Optimizing Unique Building Systems (The PHAMOUS Study).
- MA Dept. of Public Health: researching the efficacy of CHW-led interventions in homes of low-income adults with poorly controlled asthma.
- Illinois Institute of Technology: studying housing factors that exacerbate COPD and assessing the impact of portable HEPA air filters in improving health and IAQ.

Smoke-free Housing

- Harvard University: conducting implementation research on evidence-based approaches to implementing smoke-free policies in HUD-assisted multifamily housing.

Technical Studies Grants: Some Key Results

Asthma: U. of Cincinnati researchers found that mold exposure at age 1 was associated with the development of asthma by age 6.

Fall prevention: Washington U. researchers showed that home interventions reduced falls among high risk, low-income seniors.

Green construction: Harvard U. investigators reported lower concentrations of IAQ contaminants and reduced “sick building syndrome” among residents in units that had undergone green rehab

Weatherization + Healthy Homes Interventions: National Center for Healthy Housing (NCHH) researchers demonstrated that combined Weatherization + Healthy Homes interventions could improve children’s asthma control and caregivers’ quality of life.



Examples of Health Inequities Related to Housing

Condition	Magnitude	Disparate Impact?
Asthma	22.6 million in U.S. with current asthma	Asthma prevalence of 11.8% if in poverty vs. 7.3% if not. Prevalence of 13.5% for Black children vs. 6.4% for White children.
Radon exposure	~ 9.2 million homes with elevated radon levels ~ 21,000 lung cancer deaths/yr.	Low-income homeowners are less likely to test for radon.

National Radon Action Plan

- Plan developed by public-private partnership chaired by EPA/Indoor Env. Division and American Lung Association, with HUD/OLHCHH, CDC/NCEH, and 8 nonprofits, as a follow-on to the Federal Radon Action Plan.
- Approach (each with multiple actions):
 - Build in radon risk reduction across the entire housing sector.
 - Provide incentives and support for radon risk reduction.
 - Test and mitigate using professional radon services.
 - Increase visibility.

National Radon Action Plan

HUD implementing actions include:

- OLHCHH and Office of Multifamily Housing developed radon policy in 2013 for most program participants; scope updated and expanded in 2020.
- Office of Healthcare Programs established a similar requirement.
- OLHCHH and MF helped FHFA require Fannie Mae and Freddie Mac to require insured MF mortgagees comply with national consensus standards for radon testing and mitigation (i.e., the HUD MF program requirements).
- OLHCHH requires radon testing/mitigation by its HH Production grantees.

HUD's Proposed Departmentwide Radon Policy

1. Stems from HUD's environmental review regulations:
24 CFR parts 50 and 58:
 - HUD's regulations and processes for implementing NEPA
 - Also includes site a contamination requirement, which requires a "contamination analysis" to be done to safeguard against site contamination hazards
2. As a radioactive substance, radon would have to be considered in the contamination analysis done as part of HUD environmental reviews

HUD's Proposed Department wide Radon Policy

3. Testing would **not** be required, but mitigation would be required when testing or another method of analysis shows radon levels ≥ 4.0 pCi/L
4. The policy would apply **only** to HUD funded or assisted projects and **only** to HUD projects subject to HUD's contamination regulations
 - Projects at the Categorically Excluded subject to ("CEST"), Environmental Assessment, and Environmental Impact Statement levels of NEPA review would be subject to the policy
 - It would exclude buildings with no enclosed areas having ground contact; buildings that are not residential and will not be occupied for more than 4 hours per day; and buildings with existing mitigation systems where radon levels are < 4 pCi/L

Radon Grant Program Funding at a Glance

	FY21 (\$4M)	FY22 (\$5M)	FY23 & FY24 (\$5M + FY24 funds, so far)
TOTAL AMOUNT REQUESTED	\$9.1M	\$8.5M	\$3.1M
NEW AWARDS	~\$4M (9 AWARDS)	~\$5M (10 AWARDS)	TBD
Min # of Residents Protected From Risk of Radon Exposure	10,700 RESIDENTS, INCLUDING CHILDREN.	11,500 RESIDENTS, INCLUDING CHILDREN.	TBD

ZONE	LEGAL NAME	STATE	FY21 RTMPH FUNDING RECEIVED	ZONE	LEGAL NAME	STATE	FY22 RTMPH FUNDING RECEIVED
1	Lebanon County Housing Authority	PA	\$600,000	1	Huntsville HA	AL	\$558,800
2	Cuyahoga Metropolitan Housing Authority	OH	\$599,734	2	Lake County	IL	\$593,670
1	Rockford Housing Authority	IL	\$220,126	1&2	East Chicago	IN	\$561,786
1	Independence Housing Authority	MO	\$509,444	1	City of Topeka	KS	\$435,750
1	Rockville Housing Authority	MD	\$157,870	1	Bowling Green	KY	\$484,483
2	Inkster Housing Commission	MI	\$504,797	1	Louisville Metro	KY	\$600,000
2	Rock Hill Housing Authority	SC	\$600,000	1	City of Lee's Summit	MO	\$425,952
1	Albany Housing Authority	NY	\$600,000	1	Springfield Metropolitan	OH	\$590,435
1	Fort Wayne Housing Authority	IN	\$190,324	2	Newport	TN	\$253,650
				1	Roanoke	VA	\$449,000

Asthma Disparities Action Plan

- Plan developed by Children's Environmental Health Task Force's Asthma Disparities Working Group co-chaired HUD/OLHCHH, EPA, and HHS, with five additional agency members.
- Strategies (each with multiple priority actions):
 - Reduce barriers to the implementation of guidelines-based asthma management.
 - Enhance capacity to deliver integrated, comprehensive asthma care to children in communities with racial and ethnic asthma disparities.
 - Improve capacity to identify the children most impacted by asthma disparities.
 - Accelerate efforts to identify and test interventions that may prevent the onset of asthma among ethnic and racial minority children.

Asthma Disparities Action Plan (2)

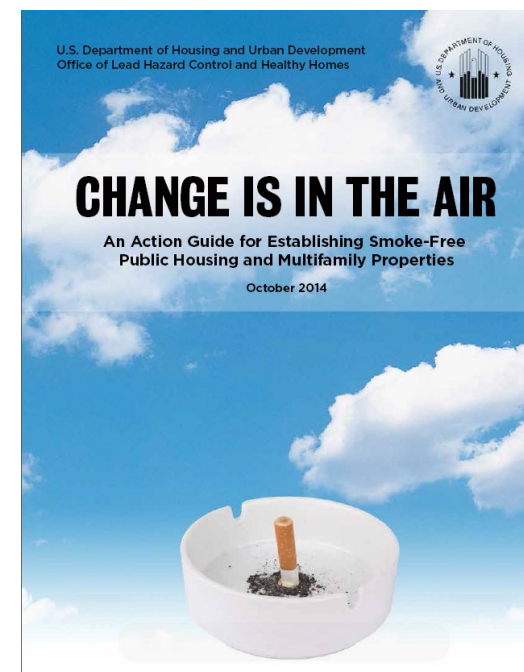
HUD implementing actions by the OLHCHH include:

- **Sponsoring “asthma summits”** across the country to promote health insurance reimbursing home asthma assessments and lower-level interventions. Ongoing pilot programs established in several locations.
- **Developing guidance for organizations** interested in establishing home intervention programs for children with poorly controlled asthma.
- **Funding research on various aspects of home interventions** for both children and adults with asthma, including the use of community health workers to conduct interventions in public housing.
- **Initiating an effort to promote smoke free housing** which eventually led to PIH’s requiring public housing to be smoke-free.
- **Supporting the delivery of technical assistance on pest control** (to avoid allergies and asthma) to public housing agencies, tribes, and multifamily housing providers through an IAA with USDA.

Cross-Cutting Initiatives

Smoke-free Public Housing

- The Office of Public and Indian Housing (PIH) issued a 2016 rule to make the HUD's public housing stock (developments, scattered site home) smoke-free.
- OLHCHH & PIH have worked together closely to promote smoke-free public housing.
- OLHCHH & PIH developed smoke-free housing tool kits for public housing agency management and residents
- OLHCHH & PIH developed the Change is in the Air action guide for public and multifamily housing (<http://portal.hud.gov/hudportal/documents/huddoc?id=SmokeFreeActionGuide.pdf>)



Cross-Cutting Initiatives (Cont.)

Medicaid Reimbursements for Lead Poisoning Follow-Up and Home-Based Asthma Assessments

- OLHCHH has collaborated with other agencies, practitioners, and insurance payers to expand Medicaid services and private insurance to provide healthcare financing for lead poisoning follow-up and home-based asthma services.
- OLHCHH is conducting asthma summits to promote insurance reimbursements for asthma home assessments and interventions
- OLHCHH is developing data use agreement templates for jurisdictions to share information on asthma cases and housing where may asthma cases have occurred.

Cross-Cutting Initiatives (Cont.)

- **Participation on Federal and Interagency Workgroups, including:**
 - Chairing Lead Exposure and Prevention Advisory Committee that advises HHS
 - Co-Chairing Lead Subcommittee of Children's Environmental Health Task Force that issued the Federal Lead Action Plan, now promoting its implementation
 - Steering Committee of the Federal Action Plan to Reduce Asthma Disparities, now promoting its implementation
 - Chaired Healthy People 2020 Federal Interagency Workgroup
 - Participating in National Radon Action Plan Leadership Council

HUD: National Standards for the Physical Inspection of Real Estate (NSPIRE)

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



NATIONAL STANDARDS FOR THE PHYSICAL INSPECTION OF REAL ESTATE

HUD is aligning its inspection protocols across its rental assistance programs

HUD has different programs, which have had different inspection standards, protocols, and processes; these programs include:

- Public Housing

- Multifamily Housing

- Housing Choice Vouchers (HCV)

- and other programs

There are NSPIRE Standards that are directly relevant to Indoor Air Quality, such as:

Infestation of pests, including cockroaches, mice and rats



Mold – visual inspection, with different levels

And other Standards:

https://www.hud.gov/program_offices/public_indian_housing/react/nspire/standards

Upcoming: NSPIRE will inspect for smoke alarms required under the Consolidated Appropriations Act, 2023

This requires smoke alarm installation following NFPA 72.

Requires sealed smoke alarms, with ten-year battery or hardwired, in each bedroom and on each level

OLHCHH Outreach Approaches in Support of the Office's Mission – FY 2023

The OLHCHH uses a variety of products, methods, channels and platforms to engage stakeholders, e.g.:

- Advised potential applicants that we were including Health Equity as the chief judging criterion this year's HUD Secretary's Award for Excellence in Healthy Homes.
- Developed and implemented specific communications during National Healthy Homes Month in June (annual national marketing campaign conducted by OLHCHH), to create awareness of OLHCHH resources relevant to this audience.
 - Social media posts on housing-related health safety hazards
 - Posted on the OLHCHH website customized for the Month



Achieving Healthy Housing: Next Steps

Some strategies

- Strengthen housing codes and improve enforcement
- Enhance enforcement of HUD regulations, and improve standards health and safety conditions in HUD-assisted housing (NSPIRE)
- Improve coordination between existing programs
- Fund more large-scale low intensity programs
- New construction: Green building standards, EPA's IndoorAir PLUS, and other innovative programs

Achieving Healthy Housing: Next Steps (Cont'd)

- Continue implementing activities to fulfill the goals outlined in the:
 - *Healthy Homes Strategy for Action,*
 - *Federal Lead Action Plan,*
 - *National Radon Action Plan,* and
 - *Asthma Disparities Action Plan*
- Continue to providing funding for grant programs (research grants and grants for producing lead-safe and healthy units)
- Continue to monitor enforcement and compliance with the Lead Safe Housing Rule, Lead Disclosure Rule, and EPA Renovation, Repair, and Painting (RRP) Rule
- Expand the Healthy Homes Grants Management System (HHGMS) to include a more robust evaluation and review of “outcomes”

Opportunities for Collaboration in FY2024

LHHTS NOFO Outreach

- We Need your Support to Disseminate the FY 2023 Lead and Healthy Homes Technical Studies Notice of Funding Opportunity (NOFO) (FR-6700-N-15)
- **Applications due 10/31/2023**
- **Download package from [Grants.gov](https://www.grants.gov)**



FY 2022-23 OLHCHH Regulatory Activities

Lead Safe Housing Rule implementation:

- CPD's CDBG, HOME, and HOPWA programs: 5,984 pre-1978 units made lead safe re >\$5 K in rehabilitation assistance in FY22; 5566 in 1Q-3Q FY23
- PIH's Public Housing program: OLHCHH, PIH, OGC, DOJ, EPA continue overseeing NYCHA \$2.2 B settlement agreement on lead, mold, pests, elevator safety, heating

Lead Disclosure Rule implementation:

- 140 units made lead-safe or verified lead-based paint free re settlement agreements

Lead safety regulatory outreach and technical assistance for program stakeholders:

- Over 800 persons participated in webinars and technical education

Regulatory development:

- Continued working with EPA on proposed Dust Lead hazard and Clearance Levels, Lead and Copper Rule Revisions
- Updating HUD Lead Disclosure Rule, Lead Safe Housing Rule