



## National Center for Healthy Housing

Creating healthy and safe homes for children through practical and proven steps.

# Who We Are...and What We Do?

March 2012



# NCHH Resources for You

- **Training**

- National Healthy Homes Training Center and Network
- Healthy Homes Specialist Credential
- EPA Renovation, Repair, and Painting Rule Accredited Training Provider
- Guidance and Technical Assistance on Program Implementation & Integration

- **Policy**

- National Safe and Healthy Housing Coalition
- State of Healthy Housing Website

- **Research**

- Program Evaluation
- Research and Documentation on Practical Strategies for Reducing Health and Safety Hazards



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# TRAINING

[www.nchh.org/Training/National-Healthy-Homes-Training-Center.aspx](http://www.nchh.org/Training/National-Healthy-Homes-Training-Center.aspx)



# Healthy Housing Training Center





## Training Center Courses

- Essentials of Healthy Homes
- Launching a Healthy Homes Initiative
- On-Line Pediatric Environmental Home Assessment
- Integrated Pest Management for Multi-Family Housing
- Community Health Workers
- Healthy Homes for Code Inspectors
- Certified Lead Renovator
- Healthy Homes for Homebuyer Counselors\*
- Health Opportunities in Energy Audits and Upgrades
- Green & Healthy Management Strategies for Multi-Family Properties\*
- Healthy Homes Advanced Course (**Coming Soon**)

\*In partnership with  
NeighborWorks America



For individuals who have demonstrated competency in the basics of the seven principles of healthy housing and how to put them into practice in homes.

- Indoor Air Quality Professionals
- Certified Home Inspectors
- Pest management Professionals
- Energy Auditors
- Lead-Based Paint Professionals
- Asbestos, Radon, and Mold Professionals
- Realtors
- Homebuyer Counselors
- Green Builders, Architects, and Developers
- Property Management Companies
- Government Agencies
- Environmental health professionals
- Code Inspectors
- Visiting nurses
- Housing Rehabilitation Specialists



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# POLICY

[www.nchh.org/Policy/National-Safe-and-Healthy-Housing-Coalition.aspx](http://www.nchh.org/Policy/National-Safe-and-Healthy-Housing-Coalition.aspx)



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## National Safe and Healthy Housing Coalition

**Mission:** To implement the most promising and realistic recommendations for a National Healthy Housing Action Plan



American Public Health Association

[www.nchh.org/Policy/National-Safe-and-Healthy-Housing-Coalition.aspx](http://www.nchh.org/Policy/National-Safe-and-Healthy-Housing-Coalition.aspx)





## Join Today!

- Visit our website:
  - [www.nchh.org/Policy/National-Safe-and-Healthy-Housing-Coalition.aspx](http://www.nchh.org/Policy/National-Safe-and-Healthy-Housing-Coalition.aspx)
  - Click on ‘Coalition membership packet’
- Participation is free and flexible



# State of the Nation's Healthy Housing



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## State of the Nation's Healthy Housing

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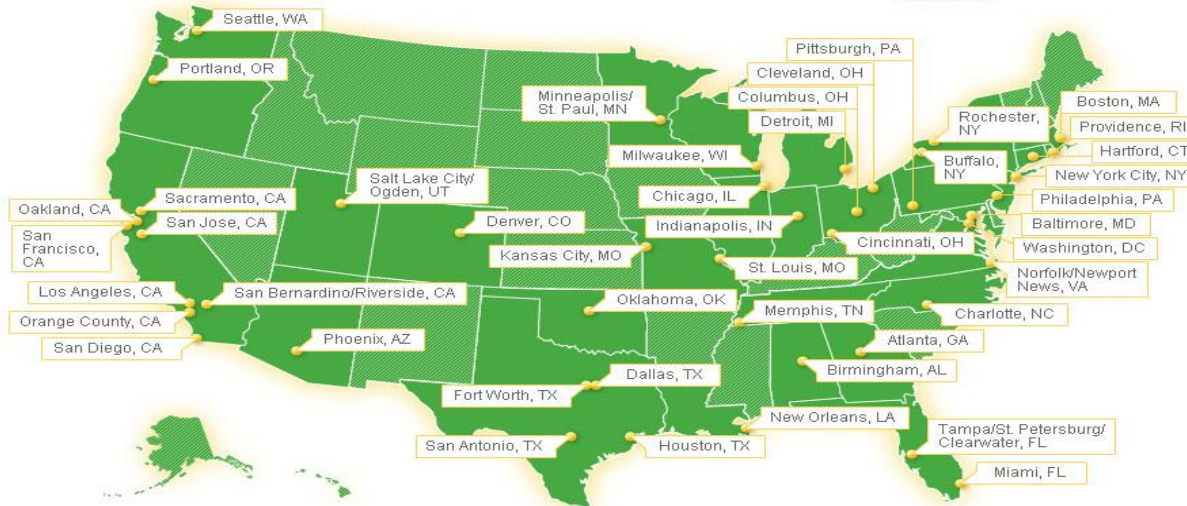
## Inside State of the Nation's Healthy Housing

MSA

Metric

Ranking

Study Design



**State of Healthy Housing  
Ranking of Communities by Healthy Housing Quality - All Units in MSA**

Rank	Metropolitan Area	Survey year	Legend
1	Charlotte, NC	2002	Most Healthy
2	Anaheim-Santa Ana (Orange County), CA	2002	Most Healthy
2	Atlanta, GA	2004	Most Healthy
4	Sacramento, CA	2004	Most Healthy
4	Tampa-Saint Petersburg-Clearwater, FL	2007	Most Healthy
6	Miami-Hialeah, FL	2007	Most Healthy
6	Minneapolis-Saint Paul, MN	2007	Most Healthy
8	San Jose, CA	1998	Fair
9	San Bernardino-Riverside (metro surveys), CA	2002	Fair
9	Washington, DC	2007	Fair
11	Phoenix, AZ	2002	Fair
11	Chicago, IL	2003	Fair
13	San Diego, CA	2002	Fair
13	Saint Louis, MO	2004	Fair
13	Portland, OR	2002	Fair
16	Denver, CO	2004	Fair
16	Providence, RI	1998	Fair
18	Kansas City, MO	2002	Fair
18	Cincinnati, OH	1998	Fair
18	Seattle, WA	2004	Fair
21	Hartford, CT	2004	Fair
21	Detroit, MI	2003	Fair
21	Rochester, NY	1998	Fair
24	Indianapolis, IN	2004	Fair
24	Buffalo, NY	2002	Fair
24	Columbus, OH	2002	Fair
24	Pittsburgh, PA	2004	Fair
24	Milwaukee, WI	2002	Fair
29	Boston, MA	2007	Most Unhealthy
29	Baltimore, MD	2007	Most Unhealthy
29	Philadelphia, PA	2003	Most Unhealthy
32	Salt Lake City-Ogden, UT	1998	Most Unhealthy
32	Norfolk/Newport News, VA	1998	Most Unhealthy
34	Houston, TX	2007	Most Unhealthy
35	Birmingham, AL	1998	Most Unhealthy
35	Cleveland, OH	2004	Most Unhealthy
35	Oklahoma City, OK	2004	Most Unhealthy
35	Fort Worth-Arlington, TX	2002	Most Unhealthy
39	Los Angeles-Long Beach, CA	2003	Most Unhealthy
39	Memphis, TN	2004	Most Unhealthy
39	San Antonio, TX	2004	Most Unhealthy
39	Dallas, TX	2002	Most Unhealthy
43	New York City, NY	2003	Most Unhealthy
44	San Francisco, CA	1998	Most Unhealthy
45	Oakland, CA	1998	Most Unhealthy

Atlanta – 2nd

Minneapolis-St. Paul – 6th

Washington, D.C – 9th

Phoenix- 11th

St. Louis – 13th

Portland – 13th

Denver – 16th

Providence – 16th

Detroit – 21st

Milwaukee - 24th

Boston – 29th

Los Angeles – 39th

Memphis – 39th

NYC – 43rd

San Francisco – 44th



# Green and Healthy Housing Resources

- Fact Sheets and Case Studies
  - Radon-Resistant Construction: Low-Rise Multi-Family Housing
  - Reasons to Explore Smoke-Free Housing
  - Improving Ventilation in Multi-Family Buildings
  - Green and Healthy Housing Priorities for Homeowners





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# NCHH RESOURCES



[www.nchh.org/store.aspx](http://www.nchh.org/store.aspx)



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# RESEARCH



## NCHH Research Objectives

- Develop/validate standardized sets of healthy homes improvements that are practical, cost-effective, health protective, and accessible for different types of housing and different housing transactions
- Calculate the cost of HH improvements and related health benefits
- Standardize data collection HH methods and sample procedures (including laboratory procedures)
- Identify trends in housing and the systematic community level changes that may have produced those trends
- Create valid HH inspection process and recommendations for healthy homes treatments



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# What Works?



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## Housing Interventions and Health: A Review of the Evidence



January 2009  
National Center for Healthy Housing





## Expert Panel Review

- Sponsored by CDC
- Over 60 experts examined available evidence of how housing changes (interventions) affected health outcomes
  - Biological agents
  - Pest allergens, Mold & Moisture, Pests
  - Chemicals
    - Radon, Lead, Particles, Pesticides, VOCs
  - Water & Sewage Treatment
  - Injuries
    - Falls, Fire, Scalds
  - Community-Level Effects



# Effective Interventions (Clinical and/or Environmental Exposure)

- Lead Hazard Control
- Multi-Faceted Tailored Asthma Interventions
- Integrated Pest Management
- Radon Sub-slab Mitigation
- Mold and Moisture Control
- Smoking Bans
- Installing Smoke Alarms
- Lowering Hot Water Temperature
- 4-sided Fencing (Pools)
- Rental Subsidies (Section 8 Vouchers)



Source: *Journal of Public Health Management and Practice*

**TABLE 1 • Summary of Intervention Findings**

Panel	Sufficient Evidence for Implementation	Needs More Field Evaluation	Needs Formative Research	No Evidence/Ineffective
Interior Biological Agents (Toxins)	<ol style="list-style-type: none"> <li>Multifaceted, in-home, tailored interventions for asthma (reduce exposure to triggers, decrease symptoms and health care use, improve quality of life)</li> <li>Cockroach control through integrated pest management (reduce allergens)</li> <li>Combined elimination of moisture intrusion and leaks and removal of moldy items</li> </ol>	<ol style="list-style-type: none"> <li>Improved insulation (reduce moisture and mold exposure and improve general and respiratory health status)</li> <li>Repeated vacuuming and steam cleaning of carpeting and furnishings (reduce allergens)</li> <li>HEPA air filtration (to reduce asthma)</li> <li>Ventilation and dehumidification</li> </ol>	<ol style="list-style-type: none"> <li>One-time professional cleaning</li> </ol>	<ol style="list-style-type: none"> <li>Bedding encasement and/or sheet and/or upholstery cleaning alone<sup>b</sup></li> <li>Acaracides as a single intervention<sup>b</sup></li> <li>Air cleaners releasing ozone<sup>a</sup></li> </ol>
Interior Chemical Agents (Toxics)	<ol style="list-style-type: none"> <li>Active radon air mitigation strategies (to reduce exposure to radon in air)</li> <li>Integrated pest management (pesticide reduction)</li> <li>Smoke-free policies</li> <li>Residential lead hazard control to reduce lead hazards and children's blood lead levels</li> </ol>	<ol style="list-style-type: none"> <li>Radon mitigation in drinking water</li> <li>Portable HEPA cleaners to reduce indoor particulates</li> <li>Attached garage sealing to limit VOC intrusion</li> <li>Particulate control by envelope sealing</li> </ol>	<ol style="list-style-type: none"> <li>Radon air mitigation using passive systems</li> <li>Residential ventilation</li> <li>VOC interventions other than garage sealing</li> </ol>	<ol style="list-style-type: none"> <li>Portable HEPA air cleaners to reduce secondhand smoke or gases<sup>b</sup></li> <li>Ionizers or other air cleaners using or releasing ozone<sup>b</sup></li> <li>Single professional cleaning to control exposure to lead<sup>b</sup></li> </ol>
Structural Deficiencies (Injury)	<ol style="list-style-type: none"> <li>Installed, working smoke alarms to reduce fire deaths and injuries</li> <li>Four-sided isolation pool fencing to prevent drowning</li> <li>Preset safe temperature hot water heaters to prevent scald burns</li> </ol>	<ol style="list-style-type: none"> <li>Fall prevention by home modifications such as handrails, grab bars, and improved lighting</li> <li>Temperature-controlled mixer faucets</li> <li>Safe ignition sources</li> <li>Home modification to escape fires</li> <li>Working air-conditioning during heat waves</li> </ol>	<ol style="list-style-type: none"> <li>Automatic fire sprinkler systems for housing</li> <li>Pool covers and alarms</li> <li>Bathtub design to reduce falls</li> <li>Stove control design to prevent burns</li> <li>Carbon monoxide exposure prevention through design, engineering, legislation, and education</li> <li>Improved enforcement of building and housing codes</li> <li>Noise reduction</li> <li>Design of residential construction materials</li> </ol>	<ol style="list-style-type: none"> <li>Three-sided pool fencing<sup>b</sup></li> </ol>
Community-level Housing interventions	<ol style="list-style-type: none"> <li>Rental vouchers (Housing Choice Voucher Program)</li> </ol>	<ol style="list-style-type: none"> <li>Moving people from high-poverty to lower-poverty neighborhoods as a health intervention</li> <li>Demolition and revitalization of poor or distressed public housing (HOPE VI)</li> </ol>	<ol style="list-style-type: none"> <li>Universal design</li> <li>Crime prevention through environmental design</li> <li>Smart growth and connectivity designs</li> <li>Residential siting away from highways</li> <li>Zoning</li> <li>Density bonuses</li> <li>Green space around housing</li> </ol>	



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