

Healthy Housing



Americans spend roughly 70 percent of their time in the home.¹ The home environment, in turn, may promote or diminish health. Housing risks include dilapidated structures; roofing problems; heating, plumbing, and electrical deficiencies; water leaks; secondhand smoke exposure; vermin and other pests; and lead paint or radon gas exposure.² Much more needs to be done to make homes safe, healthy, and affordable, especially among low-income families. Fortunately, there is a strong evidence base detailing what works to create healthier home environments.

The Problem

Housing Conditions and Health

About 35 million metropolitan homes in the US have at least one health or safety hazard, exposing residents to preventable risks. According to the 2013 American Housing Survey (AHS)—a large, representative, longitudinal sample of housing conditions at the national and the city levels—9.2 percent of non-Latino black homes and 7.2 percent of Latino homes have severe or moderate physical problems, compared with 3.2 percent of non-Latino white homes. This translates to roughly 3.1 million non-Latino black, 3.2 million Latino, and 6.6 million white people who live in homes that are moderately or severely inadequate.³ Such disparities in housing quality exacerbate health disparities. And high rates of housing-related health problems—such as childhood lead poisoning—strain health, educational, and social service systems.

Inadequate housing can impact health in many ways.

- Deteriorating lead-based paint in older housing is the primary cause of lead poisoning, which affects some 535,000 US children. Additional exposures stem from older lead-laced plumbing and water pipes that carry drinking water and from consumer products. Each dollar invested in lead paint hazard control returns \$17 to \$221 to the healthcare, education, and criminal justice systems and other sectors.⁴

- Damp houses provide a nurturing environment for mites, roaches, rodents, and molds—all of which may exacerbate asthma. Each dollar invested to reduce home asthma triggers returns \$1.30 to \$14 to the healthcare and education sectors.⁵
- Radon exposure occurs naturally, often entering the home through cracks in the foundation. Radon is the second leading cause of lung cancer and is responsible for an estimated 20,000 lung cancer deaths in the US annually.⁶
- An estimated 11,000 US residents die each year from preventable, unintentional injuries at home, including falls, fires, drownings, and poisonings. The very young and elderly are among the most susceptible to these injuries. The majority of injuries among children occur in the home. Falls are the most frequent cause of residential injuries to children, followed by injuries from objects in the home, burns, and poisonings. For seniors, six of every 10 falls occur at home.⁷
- Exposures to asbestos, carbon monoxide, and secondhand tobacco smoke are far higher indoors than outside.
- Many household products can be hazardous to health. Paints, varnishes, and glues may contain a variety of materials with potential health or nuisance effects. Household cleaning compounds can also pose a health hazard, especially to young children who might ingest them. Emerging concerns include phthalates in vinyl products, cadmium in jewelry, and defective drywall imported from China.⁸
- Secondhand smoke in multi-unit housing remains a major source of exposure for nonsmokers. In some studies, nearly 50 percent of multi-unit housing residents reported that secondhand smoke seeped into their residences from other units.⁹ One study found that children living in nonsmoking households in multi-unit buildings had 45 percent greater exposure to tobacco smoke compared with children living in detached houses.¹⁰ Secondhand smoke is a recognized cause of lung cancer and is associated with heart disease and respiratory problems in adults. Children are particularly vulnerable, facing an increased risk of developing asthma, sudden infant death syndrome, and respiratory and ear infections.¹¹
- Neighborhood characteristics can also affect a resident’s health. For instance, “more than 11 million people in the US live within 150 meters of a major roadway. Exposure to traffic-related pollution is linked to asthma and other respiratory symptoms, development of childhood asthma, and cardiovascular disease and death.”¹²

Homes not only serve as residences, but also can serve as child care centers, early learning centers, or residential properties.¹³ In addition, homes serve as places of employment for care providers, social workers, and others in-home service providers. The Association for Family Child Care reports there are approximately 1 million paid providers caring for children in home-based settings.¹⁴

Housing Affordability

Almost 17 million US households spend more than half their income on housing, meeting the definition of unaffordable housing and limiting resources for food, heating, and other essential

needs.² Lack of affordable housing often leads families to move frequently, disrupting children’s lives and leading to emotional, behavioral, and academic problems.

Opportunities for Action

- 1) Develop public-private initiatives to expand affordable housing through subsidies enabling individual tenants to rent in the private sector and through construction of new health-promoting affordable housing.
- 2) Enact and enforce state and local building and housing codes, land use, and zoning policies that promote fair and safe housing options.
- 3) Continue federal oversight of fairness-in-lending standards for banking and loan institutions. Improve private-sector banking and lending procedures to create equal opportunities for credit.
- 4) Support smokefree multi-unit housing.
- 5) Work with government, quasigovernmental, and private sector housing finance organizations to ensure that it is standard practice to detect and mitigate radon, lead, and other housing hazards before new residents occupy a property.
- 6) Improve housing codes so that they protect and benefit health.
- 7) Implement proactive housing inspections at the local level and improve enforcement.
- 8) Create financing streams that provide low- or no-interest loans to repair homes or rental units with hazardous conditions.
- 9) Increase collaboration among government agencies, community groups, public health agencies, advocacy groups, and other stakeholders to ensure a coordinated approach to safe housing for all.
- 10) Increase partnership with and investment from the healthcare sector to address housing as a key social determinant of health.
- 11) Explore private initiatives, such as Habitat for Humanity and Rebuilding Together, to create more affordable, safe, and healthy housing.
- 12) Enhance workforce training and credentialing for housing and code inspectors, home-visiting health professionals (e.g., visiting nurses, who can report hazardous conditions), and home maintenance professionals (e.g., contractors, painters, abatement specialists). Efforts can include cross-training initiatives among government agencies.
- 13) Improve data collection to better document housing conditions at the local, state, and national levels.

For More Information visit:

American Lung Association

- Healthy Air website: <http://www.lung.org/our-initiatives/healthy-air/indoor/>
- Secondhand Smoke website: <http://www.lung.org/our-initiatives/tobacco/smokefree-environments/multi-unit-housing/secondhand-smoke.html>

Centers for Disease Control and Prevention, National Center for Environmental Health

- National Center for Environmental Health, Healthy Home's Program: <http://www.cdc.gov/HealthyHomes/>
- Healthy Places website: <https://www.cdc.gov/healthyplaces/media.htm>
- National Childhood Lead Poisoning Prevention Program: <http://www.cdc.gov/nceh/lead/>

National Center for Healthy Housing

- Website: <http://www.nchh.org/Home.aspx>
- APHA and NCHH Healthy Housing Standards: <http://www.nchh.org/Policy/NationalHealthyHousingStandard.aspx>

Robert Wood Johnson Foundation

- *Housing and Health* Issue Brief: http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2011/rwjf70451

References

1. Neil E. Klepeis, Andy M. Tsang and Joseph V. Behar. Analysis of the National Human Activity Pattern Survey (NHAPS) Respondents from a Standpoint of Exposure Assessment. *Las Vegas: Laboratory USEPANER*. 1996.
2. Paula Braveman, Mercedes Dekker, Susan Egerter, Tabashir Sadegh-Nobari and Craig Pollack. Housing and Health. 2011. Retrieved from: http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2011/rwjf70451.
3. Amanda Reddy and David Jacobs. Building Justice: Genetic Code, ZIP Code and Housing Code All Affect Health and Equality. 2016;2017.
4. Elise Gould. Childhood Lead Poisoning: Conservative Estimates of the Social and Economic Benefits of Lead Hazard Control. *Environmental Health Perspectives*. 2009;117:1162-1167.
5. Tursynbek A. Nurmagambetov, Sarah Beth L. Barnett, Verughese Jacob, Sajal K. Chattopadhyay, David P. Hopkins, Deidre D. Crocker, Gema G. Dumitru, Stella Kinyota and Task Force on Community Preventive Services. Economic Value of Home-Based, Multi-Trigger, Multicomponent Interventions with an Environmental Focus for Reducing Asthma Morbidity: A Community Guide Systematic Review. *American Journal of Preventive Medicine*. 2011;41:S33-S47.
6. U.S. Centers for Disease Control and Prevention. Radiation and Your Health: Radon in the Home. 2016. Retrieved from: https://www.cdc.gov/nceh/radiation/brochure/profile_radon.htm on April 17, 2017.
7. National Institute on Aging. Falls and Older Adults. 2013. Retrieved from: <https://nihseniorhealth.gov/falls/homesafety/o1.html> on April 17, 2017.
8. National Center for Healthy Housing. Keep You, Your Family and Your Home Healthy! A Resident Manual for Wheeler Terrace Residents. Retrieved from: http://www.nchh.org/Portals/o/Contents/Wheeler_Terrace_Resident_Manual_R2.pdf.
9. U.S. Department of Health and Human Services and U.S. Centers for Disease Control and Prevention. Healthy Homes Manual: Smoke-Free Policies in Multiunit Housing 2011. Retrieved from: https://www.cdc.gov/healthyhomes/Healthy_Homes_Manual_WEB.pdf.
10. Karen M. Wilson, Jonathan D. Klein, Aaron K. Blumkin, Mark Gottlieb and Jonathan P. Winickoff. Tobacco-Smoke Exposure in Children Who Live in Multiunit Housing. *Pediatrics*. 2011;127:85.
11. U.S. Department of Health and Human Services, U.S. Centers for Disease Control and Prevention and National Center for Health Statistics. Health, United States, 2011: With Special Feature on Socioeconomic Status and Health. 2012. Retrieved from: <https://www.cdc.gov/nchs/data/hus/hus11.pdf>.
12. U.S. Department of Transportation. Proximity To Major Roadways. 2016. Retrieved from: <https://www.transportation.gov/mission/health/proximity-major-roadways> on April 18, 2017.
13. Jeffrey Capizzano. Many Young Children Spend Long Hours in Child Care. 2005.
14. National Association of Family Child Care. About Us. 2016. Retrieved from: <https://www.nafcc.org/About-Us> on April 18, 2017.