



## There's No Place like Home . . . to Cause Serious Illnesses and Fatal Injuries

### **Some Housing in the U.S. Rivals the Developing World's**

The home is the most dangerous place for U.S. families.<sup>1</sup> Nearly six million families live in housing rivaling that of developing countries, with broken heating and plumbing, holes in walls and windows, roach and rodent infestation, falling plaster, crumbling foundations, and leaking roofs. Millions more in all 50 states live in housing with serious health and safety hazards from mold, exposed wiring, radon, unvented heaters, toxic chemicals, broken stairs, missing smoke detectors, and other hazards.<sup>2</sup>

### **Poor Housing Conditions Cause Huge Numbers of Illnesses and Injuries and Cost Taxpayers Billions**

**Lead Poisoning:** An estimated 535,000 children have blood lead levels greater than CDC's level of concern.<sup>3</sup> Millions more have levels high enough to cause irreparable harm. An estimated 24 million homes in the U.S. contain lead-based paint hazards.<sup>4</sup> Lead-based paint and other toxins in the environment that cause lead poisoning, cancer, and neurobehavioral disorders result in \$52.9 billion in annual costs.

**Asthma from Mold, Roaches, and Other Triggers:** Of the 22.9 million Americans with asthma (the most prevalent chronic childhood illness), approximately 4.6 million cases due to mold, mildew, roaches, mice, dust mites, cleaning agents, combustion fumes, and other triggers can be prevented by eliminating exposures to indoor pollutants and allergens in the home.<sup>5</sup>

- These largely preventable cases result in \$3.5 billion/year in treatment and related costs (e.g., missed workdays and school days).
- Asthma rates increased 74 percent from 1980 to 1996 and are worse among the poor and certain racial/ethnic minority groups.<sup>6</sup>

**Cancer:** Radon, a naturally occurring gas, is the leading cause of lung cancer among nonsmokers and kills approximately 21,000 annually (more than drunk driving), according to the EPA. Pesticide exposure in and around the home also increases cancer risks.

**Unintentional Injuries:** About one-half of all injuries occur in and around the home and cost \$222 billion in direct medical expenses each year. Unintentional injury is the leading cause of death, disability, and hospital admissions among children 15 and younger, over half of which occur at home.<sup>7</sup>

- In 2005, 15,800 Americans died from fall-related injuries, 1.8 million were treated in emergency rooms, and over 433,000 were hospitalized.<sup>9</sup> Falls are the leading cause of nonfatal injuries to minors, account for 1/3 of all injury-related medical expenditures and cost the economy over \$38 billion annually.<sup>10</sup>

- The U.S. had 412,500 residential fires in 2006 that caused 2,580 deaths, 12,925 injuries and nearly \$7 billion in property damage.<sup>11</sup> Smoke and toxic gases, not burns, caused most of the fatalities and injuries.<sup>12</sup>
- In 2007, an estimated 38,647 children less than five years old went to the emergency room for a scald or electrical burn that occurred at home (U.S. Consumer Product Safety Commission, undated). Most scald-related deaths happen to children younger than four,<sup>13</sup> while 90 percent of adult hot water scalding occurred in the elderly and disabled.<sup>14</sup>
- In 2005, nearly 2.5 million people were exposed to poisons, 90 percent of which occurred at home<sup>15</sup> and caused 32,691 deaths, 828,899 injuries, and \$26 billion in medical expenses.<sup>16,17</sup> Of these, 74 percent were unintentional. Over half of poisoning victims are children.<sup>18</sup> The elderly are also at high risk.<sup>19</sup> Poisonings doubled from 1985 to 2004.<sup>20</sup>
- Carbon monoxide causes about 500 unintentional deaths and 15,000 ER visits/year.<sup>21</sup>

### **Vulnerable Populations Suffer More**

Low-income families, and particularly children and the elderly, suffer disproportionately from substandard housing, 95 percent of which live in private rentals units or owner-occupied houses. People of color are twice as likely as their white counterparts to live in moderately or severely deficient homes.<sup>22</sup> Correspondingly, morbidity and mortality rates from housing-related injuries and illnesses are disproportionately higher among these groups.<sup>23</sup> For example, African American children are twice as likely to die from residential injuries as white children.<sup>24</sup> Older Americans are also susceptible to the effects of unhealthy housing. For example, unintentional falls are the leading cause of injury deaths and the most common cause of nonfatal injuries and hospital trauma admissions among seniors.<sup>25</sup> Low-income seniors are twice as likely to have multiple falls as high-income seniors.<sup>26</sup>

### **Simple Fixes Can Prevent Millions of Injuries and Save Thousands of Lives and Billions in Treatment Costs**

Nearly all of these hazards have cost-effective and often simple solutions. For example:

- **Lead Poisoning:** Maintaining homes built before 1978 in good condition and following lead-safe work practices during renovation and repair reduce lead paint, dust, and soil hazards.
- **Asthma:** Numerous studies show significant improvement in patient health and much lower treatment costs through a home assessment, asthma and trigger avoidance education, and reduction of home-based triggers (e.g., closed food containers, mattress/pillow encasements, and HEPA vacuum filters).
- **CO Poisoning:** Effective prevention includes proper installation, venting, use, and maintenance of fuel-burning appliances, CO detectors, and homeowner education on the dangers of unvented portable heaters and using gas ovens/stoves for heating.
- **Falls:** Key repairs tackle missing stair handrails, slippery flooring, broken steps, inadequate lighting, and electrical cords in the open, and add grab bars and non-slip surfaces in the bathroom.

### **Barriers to Making Substandard Housing Safe and Healthy Nationwide**

Most programs to remediate and prevent these problems focus on a single hazard, such as lead-based paint or radon; yet the “whole-house” strategy of addressing them comprehensively has proven to be more efficient,

more effective, and less costly. Despite these advantages, homeowners, building managers, state and local agencies, nonprofit housing groups, public housing authorities, and other stakeholders face at least six major hurdles to attacking these problems simultaneously:

1. Numerous categorical federal housing, health, energy, and environmental programs are narrowly defined and often ignore – or even bar – addressing multiple hazards in an integrated fashion. Responsibilities for addressing health hazards in housing are not clearly delineated among federal agencies.
2. Green building programs present an opportunity to improve indoor environments, provided they balance energy conservation with occupant health concerns.
3. Information, assessment methods, best practices, and other tools needed to implement a comprehensive approach to housing hazards are limited and not widely available.
4. Data on housing conditions that relate to occupant health are scattered and in some cases insufficient to support the additional research needed in this area.
5. Medicare, Medicaid, private health insurance plans, and other payers rarely cover home assessments and remediation, even though they can prevent much costlier medical treatments.
6. Many building and housing maintenance codes fail to address health-related deficiencies or are haphazardly enforced.

**The National Safe and Healthy Housing Coalition:** We are a new, broad, voluntary coalition of national organizations working to improve housing conditions nationwide, especially for low-income Americans. Our Steering Committee includes:

National Center for Healthy Housing ( <i>Chair</i> )	Alameda County Healthy Homes Department
Association of State and Territorial Health Officials	Asthma and Allergy Foundation of America
Boston Public Health Commission	Childhood Lead Action Project
Connecticut Children's Healthy Homes Program	Iowa Parents against Lead Poisoning
Lead and Environmental Hazards Association	National Association for State Community Services Programs
NeighborWorks America	Omaha Healthy Kids Alliance
Rebuilding Together	Rural LISC
Seattle and King County Department of Public Health	Tribal Healthy Homes Network

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