

Housing and Health

DEFINITION

Housing and health is the percentage of children under age 18 who live in low-income families that reside in older housing, defined as housing built before 1980. Low-income families are those with incomes less than 200% of the federal poverty level.

SIGNIFICANCE

Healthy child development requires a home that is well-built, free of toxic hazards and that provides a place to eat well, play safely, and sleep soundly. Housing quality affects children's ability to grow, think, learn, relax, and form critical early bonds.¹

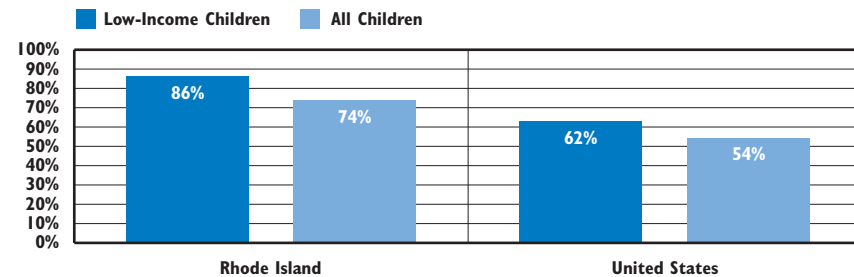
Unhealthy housing can cause or intensify many health conditions. Children living in homes built before 1978, when lead paint was banned from interior use in the United States, are at risk for lead poisoning. Studies have also connected allergies, respiratory distress, asthma, unintentional injuries, poisoning, cancer, and heart disease to poor quality construction, inadequate maintenance, and unhealthy behaviors.^{2,3,4,5}

Adopting a comprehensive "healthy homes" approach that includes both education and physical interventions can help prevent housing-related injuries and illnesses, reduce health costs

and improve children's quality of life. Because the causes of many health conditions related to the home environment are interconnected, it can be cost-effective to address multiple hazards simultaneously.⁶ For example, repairing cracks in a home's foundation can help keep both water and pests from entering the house and would address multiple asthma triggers – mold, cockroaches and rodents. Similarly, most lead programs that repair painted surfaces containing lead also fix the leaks that caused the paint to peel in the first place. Fixing the leaks helps the lead repair last longer and also prevents mold problems.

The quality of children's homes and surrounding neighborhoods are important to their development. Lack of affordable housing puts safe, healthy, well-maintained housing out of reach for many families, forcing families to raise their children in overcrowded and unsafe environments that can interfere with their growth and development. Overcrowded housing is associated with feelings of helplessness, delayed cognitive development, and behavioral problems among children.⁷

Children Living in Older Housing*, 2006-2008, Rhode Island and the United States



Source: Population Reference Bureau analysis of 2006-2008 American Community Survey (ACS) Public Use Microsample (PUMS) data. *Older housing is defined here as housing built before 1980. The ACS reports data on the year a housing structure was built by decade, so this is the best available approximation for housing built before 1978 (when lead paint was banned from interior use in the United States).

- ◆ In both Rhode Island and the nation as a whole, children in low-income families are more likely to live in older housing than children in general. Between 2006 and 2008, 86% of low-income children in Rhode Island lived in older housing, while 74% of all children lived in older housing. Of all 50 states, Rhode Island has the highest percentage of low-income children living in older housing.⁸
- ◆ Rhode Island children were more likely to live in older housing (74%) than children in the nation as a whole (54%). Rhode Island has the second highest percentage of children living in older housing in the nation, after New York.⁹
- ◆ Rhode Island's older housing stock poses additional health risks for children because, until 1978, lead paint was commonly used in the interior and exterior of homes, and exposure to lead paint is associated with numerous risks to child health and development.^{10,11}
- ◆ Because affordable housing is in short supply, many low-income families must choose between poorly-maintained housing that puts the health and safety of their families at risk and housing that is safer but unaffordable.¹² When available housing costs more than a low-income family can afford to pay, they are unlikely to have the discretionary income needed to maintain, repair, or improve their homes.¹³

Key Principles of Healthy Housing

The National Center for Healthy Housing has developed seven key principles of healthy housing. According to these principles, a healthy home is: dry, clean, pest-free, safe, contaminant-free, ventilated, and maintained.

- ◆ **Dry:** Damp houses provide a welcoming environment for mites, cockroaches, rodents, and molds, all of which are associated with asthma.
- ◆ **Clean:** Clean homes are less likely to harbor household pests and reduce children's exposure to contaminants.
- ◆ **Pest-free:** Mice and cockroaches can trigger asthma in some children. The pesticides used to rid homes of household pests can also exacerbate health problems.
- ◆ **Safe:** A majority of injuries to 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.
- ◆ **Contaminant-free:** Many chemicals found in the home pose risks to children's health, including lead, radon, asbestos, pesticides, carbon monoxide, volatile organic compounds, and second-hand tobacco smoke.
- ◆ **Ventilated:** Having a well-ventilated home improves respiratory health.
- ◆ **Maintained:** Homes that are poorly maintained may have excessive moisture, pest problems, or deteriorating lead paint, all of which pose health risks to children.

Source: National Center for Healthy Housing. (n.d.). *Seven principles of healthy homes*. Retrieved March 13, 2009 from www.ncch.org/What-We-Do/Healthy-Homes-Principles.aspx

References

^{1,2,7} Roy, J., Maynard, M. & Weiss, E. (2008). *The hidden costs of the housing crisis: The long-term impact of housing affordability and quality on young children's odds of success*. Washington, DC: Partnership for America's Economic Success.

^{3,10,14} Centers for Disease Control and Prevention. (November 2, 2007). Interpreting and managing blood lead levels <10 mcg/dL in children and reducing childhood exposures to lead: Recommendations of CDC's Advisory Committee on Childhood Lead Poisoning Prevention. *MMWR*, 56(RR08); 1-16.

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Health Problems Associated With Housing

Lead Poisoning

- ◆ Children living in homes built before 1978, when lead paint was banned from interior use in the United States, are at risk for lead poisoning. Lead exposure during early childhood can cause irreversible damage, including loss of intelligence, impaired cognitive, motor, and physical abilities and behavioral problems.^{14,15,16,17}
- ◆ One in 28 (3.5%) Rhode Island children due to start kindergarten in 2011 has had a blood lead screen of ≥ 10 mcg/dL at some point in the past, indicating exposure to an environmental lead hazard.¹⁸ Children living in the core cities (who are disproportionately poor and/or minority) are at increased risk for lead exposure because the housing stock tends to be older and less well maintained.¹⁹

Asthma

- ◆ The presence of dust mites, cockroaches, mold, pet dander, and rodents can all trigger or exacerbate respiratory problems, including asthma.²⁰ Asthma is the most common chronic condition in children, the third leading cause of hospitalization for children under age 15 and a leading cause of school absences in the U.S.^{21,22}
- ◆ Between 2004 and 2008, there were 2,268 hospitalizations of children in Rhode Island for which the primary diagnosis was asthma. Asthma hospitalization rates in Rhode Island were highest for Black and Hispanic children.²³ Minority children are more likely to live in the core cities where the housing stock tends to be older and may be exposed to more asthma triggers.²⁴

Unintentional Injuries

- ◆ Falls are the leading cause of unintentional injuries among children in the U.S. More than 80% of fall-related injuries among children under age five occur in the home. Residential hazards associated with falls among children include a lack of safety devices, such as safety gates and window guards; structural problems, such as uneven floors; and insufficient lighting in stairways and other areas.^{25,26}
- ◆ In 2008, housing-related falls resulted in 4,383 emergency room visits by Rhode Island children. Half (51%) of these visits were for children under age six.²⁷