

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

Homes that are dry, clean, pest-free, safe, contaminant-free, well-ventilated, well-maintained, and thermally-controlled can provide a healthy environment for children and residents.¹ Safe, affordable, and stable housing maintains the health and well-being of families and children, supporting mental and emotional health as well as physical safety.² Healthy housing also protects families from weather, environmental hazards, and injury and provides a safe place for children to eat, sleep, play, and grow.³

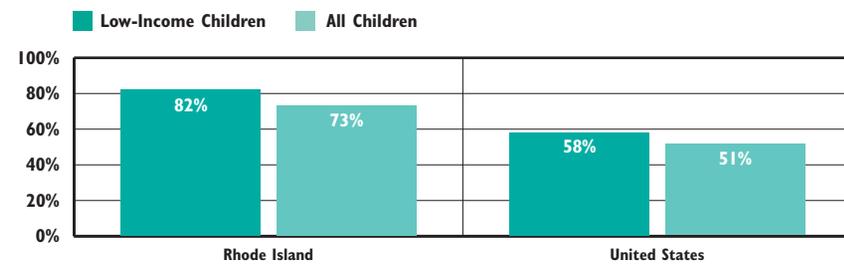
Unhealthy housing can cause or intensify many health conditions. Studies have connected poor quality construction, utility deficiencies, water intrusion, lead paint, radon, and pests to respiratory illnesses, asthma, unintentional injuries, lead poisoning, and cancer. Children under age 14, low-income children, and minority children under age five are at increased risk for fall injuries due to unsafe sleep and home environments, including aging and deteriorating housing.^{4,5,6}

Poor quality housing is also a strong predictor of emotional and behavioral problems in low-income children and youth as well as academic achievement. Adolescents living in poorer quality homes have lower reading and math proficiency than their peers.⁷

The quality and stability of children's homes can have long-term effects on children. Lack of adequate and affordable housing puts safe, healthy, well-maintained homes out of reach for many families. Families may be forced to move frequently in search of better, more affordable housing, or to raise their children in overcrowded and unsafe environments that can interfere with their growth, development, health, and academic performance. Overcrowded housing is associated with mental health concerns, stress, sleep problems, injury, and exposure to disease, while multiple moves are associated with behavioral and mental health concerns, academic difficulties, and substance use.⁸

Adopting a comprehensive "healthy homes" approach that addresses multiple housing deficiencies simultaneously 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.^{9,10}

Children Living in Older Housing*, 2010-2014, Rhode Island and the United States



Source: Population Reference Bureau analysis of 2010-2014 American Community Survey (ACS) Public Use Microsample (PUMS) data. *Older housing is defined as built before 1980. The ACS reports housing year built by decade, so this is the best available approximation for housing built before 1978 when interior lead paint was banned. Factbooks prior to 2016 are not comparable due to the discontinuation of 3 year ACS data.

- ◆ 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 2010 and 2014, 82% of low-income children in Rhode Island lived in older housing, compared to 58% of low-income children in the U.S. Of all 50 states, Rhode Island has the highest percentage of low-income children living in older housing.¹¹
- ◆ Rhode Island children (of all incomes) were more likely to live in older housing (73%) than U.S. children (51%) between 2010 and 2014. Rhode Island has the second highest percentage of children living in older housing in the U.S., after New York.¹²
- ◆ Rhode Island's older housing stock poses health risks for children because lead paint was commonly used in the interior and exterior of homes before 1978. Exposure to lead is associated with numerous health risks. Despite consistent lead poisoning declines, children living in the four core cities have disproportionately higher rates of lead exposure than children living in the remainder of the state.^{13,14}
- ◆ Because affordable housing is in short supply, many low-income families must pay more than 30% of their income for housing, which is a cost-burden. Low-income families who are forced to spend more than they can afford on housing can face difficult choices about where to spend their remaining income, and may not have enough money left in their budget to pay for nutritious food, health insurance, and health care.^{15,16}

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. Even at low levels, lead exposure during early childhood can negatively affect a child's health and development and cause learning disabilities, loss of IQ, and reduced attention span.^{17,18}
- ◆ One in twelve (8.3%) Rhode Island children due to start kindergarten in the fall of 2017 has had a confirmed blood lead level of ≥ 5 $\mu\text{g}/\text{dL}$, indicating exposure to an environmental lead hazard.¹⁹ Children living in the four core cities are at an increased risk for lead exposure in part because the housing stock tends to be older and less well-maintained.²⁰ The prevalence of childhood lead poisoning has steadily decreased over the past decade.²¹

Asthma

- ◆ Inadequate ventilation, dust, cockroaches, mold, pet dander, and cigarette smoke can all trigger or exacerbate respiratory problems, including asthma. Asthma is a 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.^{22,23}
- ◆ Between 2010 and 2014, there were 1,806 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.^{24,25} In Rhode Island, low-income and minority children residing in the four core cities have higher rates of asthma.²⁶

Unintentional Injuries

- ◆ Falls are the leading cause of non-fatal unintentional injuries among children under age 18 in the U.S.²⁷ 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.²⁸
- ◆ In 2014, housing-related falls resulted in 4,449 emergency room visits by Rhode Island children. Half (51%) of these visits were for children under age six.²⁹

Community Mitigation of Housing Hazards

Lead Screening and Abatement

- ◆ The state of Rhode Island has enacted many policies and programs to reduce the causes and prevalence of childhood lead poisoning. All Rhode Island children must have at least two blood lead screening tests by age three and annual screenings through age six.³⁰ In 2015, 84% of all Rhode Island three-year-olds received a blood lead test.³¹
- ◆ All lead poisoned children (≥ 5 $\mu\text{g}/\text{dL}$) are referred for non-medical case management and education and those with a blood lead level of ≥ 15 $\mu\text{g}/\text{dL}$ are offered an environmental inspection. In 2015, 68 inspections were offered, of which 41 were performed, 14 were refused, 11 the child moved, and two were pending.^{32,33} Funding and services through Rhode Island Housing are also available to make eligible homes lead safe.³⁴

Weatherization Assistance Program

- ◆ Since its inception in 1976, the Weatherization Assistance Program has helped eligible households reduce heating bills by providing whole-house energy efficiency and safety services such as reducing drafts, providing proper ventilation, and installing smoke detectors, insulation, and carbon monoxide detectors. In 2015, 543 children benefited from 848 completed weatherization projects throughout Rhode Island that were administered by seven Community Action Program agencies.^{35,36}

References

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