

# 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.<sup>1</sup> 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. Healthy housing also protects families from weather, environmental hazards, and injury and provides a safe place for children to eat, sleep, play, and grow.<sup>2,3</sup>

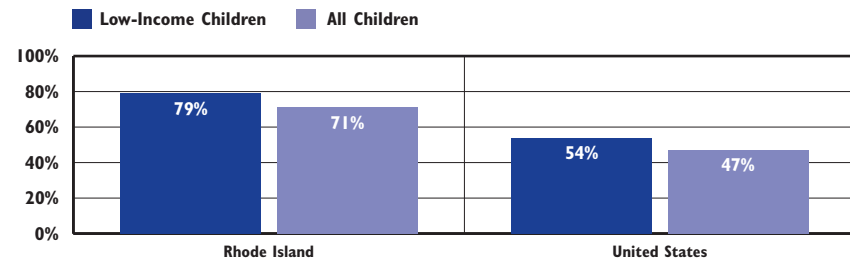
Unhealthy housing can cause or intensify many health conditions. Studies have connected poor quality construction, utility deficiencies, water intrusion, lead paint, radon, and pests to respiratory illnesses, asthma, unintentional injuries, lead poisoning, and cancer. Children under age five, low-income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

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.<sup>6</sup>

The quality and stability of their 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.<sup>7</sup>

Adopting a comprehensive “healthy homes” approach that addresses multiple housing deficiencies simultaneously can help prevent housing-related injuries and illnesses, reduce health care 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.<sup>8,9,10</sup>

  
**Children Living in Older Housing\*, 2018-2022,  
Rhode Island and the United States**



Source: Population Reference Bureau analysis of 2018-2022 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.

★ **Between 2018 and 2022, Rhode Island had the highest percentage of low-income children (79%) and the second highest percentage of children of all incomes (71%) living in older housing in the U.S., after New York.**<sup>11</sup>

★ **Lead Poisoning: Children living in homes built before 1978 are at risk for lead poisoning. Even at low levels, lead exposure can negatively affect a child’s health, development, and brain.**<sup>12</sup> In 2023, 2.4% (595) of Rhode Island children under age six who were screened had a confirmed blood lead level of  $\geq 5$   $\mu\text{g}/\text{dL}$ .<sup>13</sup>

★ **Asthma: Asthma is the most common chronic condition in children and a leading cause of school absences and hospitalization for children under age 18 in the U.S.**<sup>14</sup> Between 2018 and 2022, there were 2,941 emergency department visits of Rhode Island children ages six and under (7.9 per 1,000) for which asthma was the primary diagnosis.<sup>15</sup>

★ **Unintentional Injuries: Falls are the leading cause of non-fatal unintentional injuries among children in the U.S.**<sup>16</sup> In 2022, housing-related falls resulted in 987 emergency room visits by Rhode Island children ages six and under.<sup>17</sup>

★ **Weatherization Assistance Program: This program helps income-eligible households reduce heating bills by providing whole-house energy efficiency and safety services. In 2023, 693 Rhode Island children under age 18 benefited from 1,212 completed weatherization projects, a return to previous levels after disruptions caused by the pandemic.**<sup>18,19</sup>

Table 23.

## Housing and Health, Rhode Island

CITY/TOWN	TOTAL # OF CHILDREN AGES 6 AND UNDER, 2020	CHILDREN <6 WITH LEAD POISONING 2023			PRIMARY ASTHMA ED VISITS* 2018-2022		HOUSING RELATED FALLS 2022	WEATHERIZATION PROJECTS 2023	% HOUSING STOCK PRE-1980
		#	TESTED	%	#	RATE PER 1,000			
Barrington	1,262	<5	439	*	35	5.5	18	4	82%
Bristol	937	<5	322	*	14	3.0^	7	10	67%
Burrillville	1,044	6	289	*	23	4.4^	13	11	65%
Central Falls	2,304	43	846	5.1%	124	10.8	23	13	78%
Charlestown	364	0	99	0.0%	3	*	5	9	50%
Coventry	2,267	6	650	0.9%	54	4.8	27	49	66%
Cranston	5,492	44	1,928	2.3%	201	7.3	61	170	77%
Cumberland	2,716	10	798	1.3%	53	3.9	38	24	63%
East Greenwich	996	5	361	*	13	2.6^	15	2	60%
East Providence	2,907	10	1,170	3.1%	142	9.8	34	59	81%
Exeter	397	<5	103	*	7	*	*	12	45%
Foster	246	<5	90	*	4	*	*	5	56%
Glocester	651	<5	154	*	3	*	5	21	62%
Hopkinton	539	0	106	0.0%	18	6.7^	*	12	60%
Jamestown	223	<5	80	*	8	*	*	5	57%
Johnston	1,784	8	697	1.1%	48	5.4	24	57	66%
Lincoln	1,522	10	425	2.4%	34	4.5	9	14	68%
Little Compton	175	<5	46	*	4	*	*	0	63%
Middletown	1,257	<5	269	*	54	8.6	23	4	65%
Narragansett	461	<5	100	*	4	*	10	6	60%
New Shoreham	62	<5	14	*	1	*	*	0	50%
Newport	1,444	8	350	2.3%	71	9.8	26	7	85%
North Kingstown	1,831	6	498	1.2%	31	3.4	22	28	64%
North Providence	2,174	11	746	1.5%	59	5.4	23	56	65%
North Smithfield	726	<5	216	*	17	4.7^	7	9	62%
Pawtucket	6,199	51	1,888	2.7%	309	10.0	76	113	85%
Portsmouth	1,141	<5	288	*	20	3.5^	13	14	61%
Providence	15,026	289	6,589	4.4%	1,060	14.1	261	196	83%
Richmond	576	0	127	0.0%	8	*	5	0	43%
Scituate	607	<5	243	*	7	*	7	5	62%
Smithfield	1,122	<5	363	*	24	4.3^	22	20	58%
South Kingstown	1,339	<5	346	*	18	2.7^	18	5	55%
Tiverton	907	<5	302	*	13	2.9^	8	43	61%
Warren	626	<5	216	*	21	6.7^	*	15	82%
Warwick	5,228	19	1,548	1.2%	125	4.8	53	124	78%
West Greenwich	380	0	99	0.0%	11	*	5	6	32%
West Warwick	2,276	6	601	1.0%	71	6.2	36	40	66%
Westerly	1,257	<5	226	*	17	2.7^	19	18	59%
Woonsocket	3,684	33	1,104	3.0%	212	11.5	56	26	85%
Four Core Cities	27,213	416	10,427	4.0%	1,705	12.5	416	348	84%
Remainder of State	46,936	179	14,309	1.3%	1,236	5.3	571	864	68%
Rhode Island	74,149	595	24,741	2.4%	2,941	7.9	987	1,212	72%

### Source of Data for Table/Methodology

U.S. Census Bureau, Census 2020., Table PCT 12.

Children with Lead Poisoning: Rhode Island Department of Health, Healthy Homes and Childhood Lead Poisoning Prevention Program, 2023. The numerator is the number of Rhode Island children with a confirmed blood lead level  $\geq 5$   $\mu\text{g}/\text{dL}$  in calendar year 2023. The denominator is the number of children who were tested in calendar year 2023. Data are for children under age six.

Children with Asthma: Rhode Island Department of Health, Hospital Discharge Database, 2018-2022. The Rhode Island Department of Health defines emergency department (ED) visits for children with a primary asthma diagnosis as those resulting in a home discharge or another facility, but not admitted to the hospital as an inpatient. Children with multiple ED visits are counted as a new event for each admission, so some children are counted more than once. For details, see Children with Asthma indicator. Data are for children ages six and under.

\*\*Asthma data for 2020 are not comparable to prior years. Asthma-related emergency department visits and hospitalizations decreased substantially in spring 2020, due to the COVID-19 pandemic.

Housing Related Falls: Rhode Island Department of Health, Center for Health Data and Analysis, 2022. Data are for children ages six and under who are residents of Rhode Island.

Weatherization Projects: Rhode Island Department of Human Services, Weatherization Assistance Program data, 2023. Weatherization projects are defined as those receiving a final inspection by the end of calendar year 2023.

Housing Stock Pre-1980: Population Reference Bureau analysis of 2018-2022 American Community Survey (ACS) data. Table B25034. Older housing is defined as being 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.

\* The data are statistically unreliable and rates are not reported and should not be calculated.

^ The data are statistically unstable and rates or percentages should be interpreted with caution.

(Continued with references on page 183)