

Children with Asthma

DEFINITION

Children with asthma is the rate of hospitalizations for asthma per 1,000 children under age 18. Data are reported by place of child's residence at the time of hospitalization.

SIGNIFICANCE

Asthma is a chronic lung disease that causes recurrent episodes of wheezing, breathlessness, chest tightness, and cough and can be life threatening.^{1,2} Attacks can be triggered by exposure to cigarette smoke, mold and dust in the home, stress, strenuous exercise, allergies, roach infestation, animal dander, indoor and outdoor pollutants, and weather conditions.³ Childhood asthma in the U.S. has steadily increased over the past two decades.⁴ In 2002, 9 million children under age 18 (12%) had previously been diagnosed with asthma and 4 million children (6%) had an asthma attack in the past year.⁵

Asthma is the number one chronic condition in children and the third-ranked cause of hospitalization in children under age 15. Asthma is the leading cause of school absences resulting from chronic illness.⁶ Black children are more likely to suffer from asthma than White and Hispanic children. Racial differences in the prevalence of asthma are correlated with

poverty, substandard housing, urban air quality, indoor allergens, and lack of access to preventive medical care.^{7,8}

Proper asthma management requires a long-term, multifaceted approach, including patient education, behavior modification, avoidance of asthma triggers, medication to minimize and prevent symptoms, and frequent medical follow-up.⁹ Uninsured children are 72% more likely not to receive care for asthma than children who have health insurance.¹⁰ Low-income and uninsured children are more likely to receive treatment in the emergency department or be hospitalized for conditions that could have been managed with appropriate outpatient care.¹¹

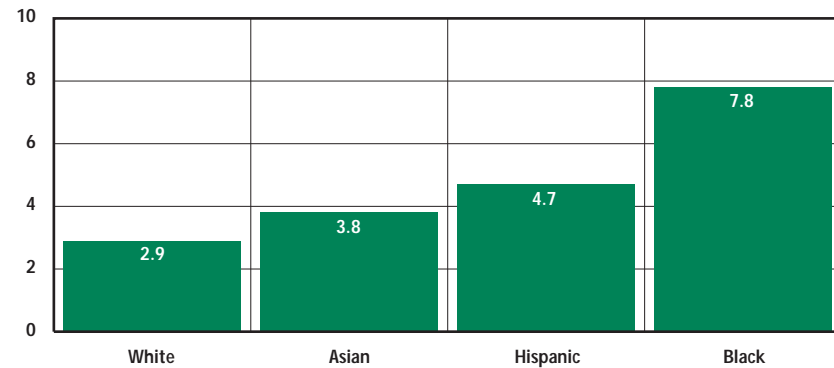
Childhood Asthma

Hospitalization Rates, Core Cities and Rhode Island, 1999-2003

City/Town	Number of Children Hospitalized	Rate per 1,000 Children
Central Falls	155	5.6
Newport	89	3.4
Pawtucket	378	4.2
Providence	1,417	6.3
West Warwick	153	4.6
Woonsocket	239	4.3
Rhode Island	4,472	3.6

Source: Rhode Island Department of Health, Hospital Discharge Database, 1999-2003.

Asthma Hospitalizations by Race/Ethnicity, Per 1,000 Children Under Age 18, Rhode Island, 1999-2003



Source: Rhode Island Department of Health, Hospital Discharge Database, 1999-2003. Race/ethnicity was unknown for 142 children.

- ◆ In Rhode Island between 1999 and 2003, the rate of hospitalizations for Black children (7.8) was more than twice the rate for White children (2.9).¹²
- ◆ Nationally, although asthma is only slightly more prevalent in minority children than in White children, it accounts for three times the number of deaths.¹³

Asthma and Access to Health Care

◆ Most cases of childhood asthma can be managed by the child's primary care physician and timely medical care can prevent severe asthma attacks. Hospitalization for asthma may indicate that the child has not had adequate outpatient management of the disease. Asthma symptoms not severe enough to require hospitalization may still prevent a child with asthma from leading a fully-active life.¹⁴

◆ In Rhode Island between 1999-2003, over half (54%) of all hospitalizations for childhood asthma were children residing in the core cities, where only a third of Rhode Island's children live.¹⁵ Rhode Island's core cities have the highest child poverty rates and the highest rates of children without health insurance in the state.¹⁶

Table 19. Asthma Hospitalizations for Children Under Age 18, Rhode Island, 1999-2003

CITY/TOWN	ESTIMATED NUMBER OF CHILDREN UNDER 18	NUMBER OF ASTHMA HOSPITALIZATIONS	RATE/1000 CHILDREN
Barrington	23,725	41	1.7
Bristol	21,995	47	2.1
Burrillville	20,215	50	2.5
Central Falls	27,655	155	5.6
Charlestown	8,560	35	4.1
Coventry	41,945	114	2.7
Cranston	85,490	262	3.1
Cumberland	38,450	74	1.9
East Greenwich	17,820	35	2.0
East Providence	52,730	173	3.3
Exeter	7,945	12	1.5
Foster	5,525	15	2.7
Glocester	13,320	19	1.4
Hopkinton	10,055	21	2.1
Jamestown	6,190	7	1.1
Johnston	29,530	73	2.5
Lincoln	25,785	56	2.2
Little Compton	3,900	5	1.3
Middletown	21,640	74	3.4
Narragansett	14,165	28	2.0
New Shoreham	925	1	1.1
Newport	25,995	89	3.4
North Kingstown	34,240	83	2.4
North Providence	29,680	96	3.2
North Smithfield	11,895	20	1.7
Pawtucket	90,755	378	4.2
Portsmouth	21,645	50	2.3
Providence	226,385	1,417	6.3
Richmond	10,070	19	1.9
Scituate	13,175	28	2.1
Smithfield	20,095	39	1.9
South Kingstown	31,420	70	2.2
Tiverton	16,835	27	1.6
Warren	12,270	37	3.0
Warwick	93,900	284	3.0
West Greenwich	7,220	16	2.2
West Warwick	33,160	153	4.6
Westerly	27,030	81	3.0
Woonsocket	55,775	239	4.3
Unknown Residence	NA	49	NA
Core Cities	459,725	2,431	5.3
Remainder of State	779,385	1,992	2.6
Rhode Island	1,239,110	4,472	3.6

Source of Data for Table/Methodology

Rhode Island Department of Health, Hospital Discharge Database, 1999-2003.

Core cities are Central Falls, Newport, Pawtucket, Providence, West Warwick and Woonsocket.

The denominator is the total number of children under age 18 according to the 2000 Census of Population, multiplied by five to calculate a rate over five years.

See Methodology page 143.

References for Indicator

- ^{1,3,6} *Asthma in children fact sheet*. (2003). New York, NY: American Lung Association.
- ² *Childhood asthma: An overview*. (2003). New York, NY: American Lung Association.
- ⁴ *Trends in asthma morbidity and mortality*. (2002). New York, NY: American Lung Association.
- ⁵ National Center for Health Statistics. (2004). *Summary health statistics for U.S. children: National health interview survey, 2002*. Atlanta, GA: Centers for Disease Control and Prevention.
- ⁷ National Center for Environmental Health. (2002). *National asthma control program: Reducing costs and improving the quality of life, 2002*. Atlanta, GA: Centers for Disease Control and Prevention.
- ⁸ *Minority lung disease data 2000*. (2000). New York, NY: American Lung Association.
- ^{9,11} Brodsky, K. (2002) *Overcoming financial barriers to improving asthma care for children*. Lawrenceville, NJ: Center for Health Care Strategies.
- ¹⁰ *Children's health-Why health insurance matters* (2002). Washington, DC: Kaiser Commission on Medicaid and the Uninsured, Kaiser Family Foundation.
- ^{12,15} Rhode Island Department of Health, Hospital Discharge Database, 1998-2002 and 1999-2003.
- ¹³ National Institutes of Health. (2001). *Asthma: A concern for minority populations*. Washington, DC: U.S. Department of Health and Human Services.
- ¹⁴ *Asthma and the environment: A strategy to protect children*. (2000). Washington, DC: President's Task Force on Environmental Health Risks and Safety Risks to Children.
- ¹⁶ Rhode Island Department of Human Services, Medicaid Data Archive and Rhode Island Department of Health, Behavioral Risk Factor Surveillance System, 2002.