

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 inflammatory lung disease that causes recurrent, reversible episodes of coughing, wheezing, shortness of breath and chest tightness, which can be life threatening.^{1,2} Attacks can be triggered by respiratory infections, cigarette smoke, exercise, weather conditions, stress and allergies to pollen, mold, dust, cockroaches and animal dander.^{3,4} Childhood asthma in the U.S. increased over the past two decades. The current prevalence has remained stable since 2001, but is at historically high levels. Ambulatory care use for asthma continues to grow. Emergency department visits and hospitalization rates for asthma have stabilized at high levels, while deaths due to asthma have decreased recently.⁵

Nationally, asthma is the most common chronic condition in children, the third-ranked cause of hospitalization for children under age 15 and one of the leading causes of school absences.^{6,7} Nearly 13.5% of children under age 18 in the U.S. have ever been diagnosed with asthma and more than 9.3%

currently report having asthma.⁸ Black and Puerto Rican children have higher rates of asthma prevalence than White children.⁹ While research is inconclusive, racial differences in asthma prevalence are believed to be correlated with poverty, exposure to indoor and outdoor air pollution, stress, lack of access to preventive medical care and genetic factors.¹⁰

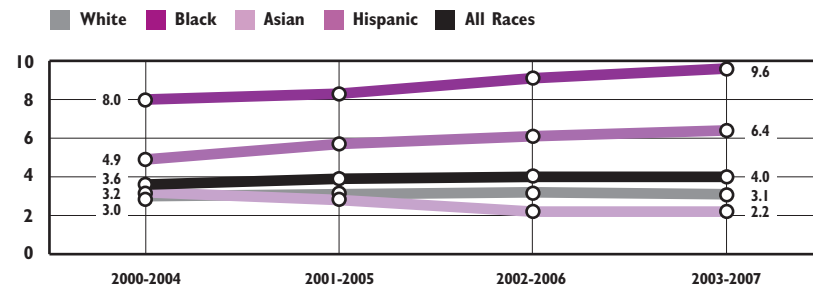
Proper asthma management requires patient education, ongoing partnerships with primary care providers, avoidance of asthma triggers, medication to prevent and minimize symptoms, management of asthmatic episodes and regular follow-up care.¹¹ A primary care provider acting as a child's medical home can provide the connections to support services needed to help manage asthma.¹²

Childhood Asthma Hospitalization Rates, Core Cities and Rhode Island, 2003-2007

City/Town	Number of Children Hospitalized	Rate per 1,000 Children
Central Falls	168	6.1
Newport	107	4.1
Pawtucket	480	5.3
Providence	1,489	6.6
West Warwick	154	4.6
Woonsocket	266	4.8
Rhode Island	4,972	4.0

Source: Rhode Island Department of Health, Hospital Discharge Database, 2003-2007.

Asthma Hospitalizations by Race/Ethnicity per 1,000 Children under Age 18, Rhode Island, 2000-2007



◆ In Rhode Island between 2003 and 2007, the rate of asthma hospitalizations for Black children was more than three times the rate of hospitalizations for White children and the rate for Hispanic children was more than twice the rate for White children. The rate of asthma hospitalizations among Black children has risen from 8.0 per 1,000 in 2000-2004 to 9.6 per 1,000 in 2003-2007 and the rate among Hispanic children in Rhode Island has increased from 4.9 per 1,000 in 2000-2004 to 6.4 per 1,000 in 2003-2007.

Source: Rhode Island Department of Health, Hospital Discharge Database, 2000-2007; U.S. Bureau of the Census, Census 2000. Due to a change in methodology, race and ethnicity data are not comparable with Factbooks prior to 2008.

Preventing Childhood Asthma

◆ In Rhode Island, more than one in 10 (11%) children under age 18 reported having asthma between 2001 and 2005. Only four states report higher current asthma prevalence rates.¹³ In both the U.S. and in Rhode Island, health care use for asthma (including emergency room use and hospitalizations) is highest among the youngest children.^{14,15} In Rhode Island between 2003 and 2007, children under age five accounted for 52% of hospitalizations for asthma. Children ages five through 12 and adolescents ages 13-17 accounted for 28% and 20% of hospitalizations, respectively.¹⁶

◆ Asthma prevention and management are best handled in a primary care setting. Research shows that asthma care that is delivered in outpatient and emergency department settings is of lesser quality than that delivered through primary care. Rhode Island children with asthma who are racial and ethnic minorities, economically disadvantaged, uninsured or have other barriers to services must be able to access comprehensive and affordable primary medical care. This access will allow them to prevent and manage their chronic illness and avoid more costly and less effective treatment in other settings.^{17,18}

Table 21. Asthma Hospitalizations for Children under Age 18, Rhode Island, 2003-2007

CITY/TOWN	ESTIMATED NUMBER OF CHILDREN UNDER AGE 18*	NUMBER OF ASTHMA HOSPITALIZATIONS	RATE PER 1,000 CHILDREN
Barrington	23,725	41	1.7
Bristol	21,995	71	3.2
Burrillville	20,215	48	2.4
Central Falls	27,655	168	6.1
Charlestown	8,560	16	1.9
Coventry	41,945	106	2.5
Cranston	85,490	276	3.2
Cumberland	38,450	86	2.2
East Greenwich	17,820	44	2.5
East Providence	52,730	244	4.6
Exeter	7,945	18	2.3
Foster	5,525	10	1.8
Glocester	13,320	27	2.0
Hopkinton	10,055	25	2.5
Jamestown	6,190	12	1.9
Johnston	29,530	73	2.5
Lincoln	25,785	68	2.6
Little Compton	3,900	6	1.5
Middletown	21,640	67	3.1
Narragansett	14,165	23	1.6
New Shoreham	925	1	1.1
Newport	25,995	107	4.1
North Kingstown	34,240	86	2.5
North Providence	29,680	106	3.6
North Smithfield	11,895	30	2.5
Pawtucket	90,755	480	5.3
Portsmouth	21,645	68	3.1
Providence	226,385	1,489	6.6
Richmond	10,070	17	1.7
Scituate	13,175	32	2.4
Smithfield	20,095	52	2.6
South Kingstown	31,420	47	1.5
Tiverton	16,835	19	1.1
Warren	12,270	39	3.2
Warwick	93,900	304	3.2
West Greenwich	7,220	14	1.9
West Warwick	33,160	154	4.6
Westerly	27,030	82	3.0
Woonsocket	55,775	266	4.8
Unknown	NA	150	NA
Core Cities	459,725	2,664	5.8
Remainder of State	779,385	2,158	2.8
Rhode Island	1,239,110	4,972	4.0

Source of Data for Table/Methodology

Rhode Island Department of Health, Division of Family Health, 2003-2007.

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

*The denominator used to compute the 2003-2007 rate is the number of children under age 18 according to the 2000 U.S. Census, multiplied by five.

References

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