



## Asthma and Asthma-Related Health Care in Children Enrolled in HUSKY A: 2004

December 2005 (revised)

This report is the seventh annual summary of asthma prevalence and asthma-related health care in HUSKY A (Medicaid managed care).<sup>1</sup>

### Purpose

To describe the prevalence of asthma and asthma-related health care among children enrolled in HUSKY A and to identify trends and factors associated with access to care.

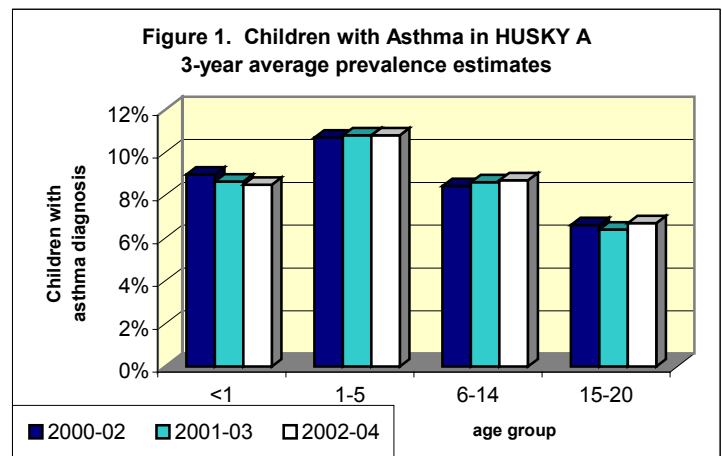
### Methods

Using HUSKY A enrollment data, children under 21 years of age who were continuously enrolled from January 1 through December 31, 2004, were identified. Encounter data were searched for records corresponding to outpatient, inpatient, and emergency care with a primary or secondary diagnosis of asthma (ICD-9-CM code 493.0-493.9). The prevalence of pediatric asthma was estimated by determining the proportion of children who received any care with an asthma diagnosis during the 1-year period. Three-year rolling averages that smooth out year-to-year fluctuations in data quality and service delivery were also calculated. Asthma-related health care utilization was described and quality of care was assessed in terms of the percentage of children who were seen for follow-up within 2 weeks after an emergency department visit or discharge from the hospital, as recommended.<sup>2</sup>

### Results

There were 170,937 children under 21 years of age continuously enrolled in HUSKY A in CY 2004.

**Asthma prevalence:** In 2004, 16,002 children (9.4%) received care with an asthma diagnosis, essentially unchanged from 9.2% in CY 2003. (The percentage of children with health care for a primary diagnosis of asthma was 8.6%.)



Since 1998, the 3-year average rate has been stable at around 9% (8.9% in 2002-2004) and varied with age (Figure 1).

Asthma prevalence in 2004 was associated with age, gender, race/ethnicity, health plan, and residence (Table 1). The prevalence of asthma was significantly higher among:

- Children age 1-5 years, compared with infants and older children;
- Boys, compared with girls;
- Hispanic children, compared with African-American children;
- African-American children, compared with White children; and
- Children living in Bridgeport and Hartford, compared with those living in New Haven or other Connecticut towns.

### Asthma-related health care utilization:

Nearly half of the children with asthma had more than one visit for ambulatory care (office or clinic visits, emergency care) in 2004. The average number of visits per child was 4.2 (range: 1-33), unchanged from 2003 (Table 2).

Of the children with asthma, 25% had at least one emergency room visit, an increase over 2003; however, just 20% of them were seen in the ER more than once, compared with 29% in 2003. The percentage with emergency care was lower for children in BlueCare (21%) compared with children in CHNCT (31%) and Preferred One (33%). Twenty-four percent of children in Health Net had emergency care. In 2004, 648 children (4.0% of those with asthma) were hospitalized at least once for asthma.

**Table 1. Children with Asthma**

	CY 2004 (n=170,937)		CY 2003 (n=163,615)	
	Number	Percent	Number	Percent
<b>Total</b>	16,002	9.4%	14,948	9.1%
<b>Gender:</b>				
Female	7,125	8.4%	6,596	8.1%
Male	8,849	10.3%	8,352	10.2%
<b>Race/ethnicity:</b>				
African-American	4,027	9.1%*	3,720	8.6%
Hispanic	6,600	11.4%	6,347	11.4%
White	5,073	7.9%	4,694	7.7%
Other	302	7.2%	253	6.8%
<b>Age (years):</b>				
<1	122	8.7%	52	7.2%
1-5	5,748	11.3%	5,473	11.1%
6-14	7,708	9.2%	7,251	8.9%
15-20	2,424	7.0%	2,238	6.9%
<b>Residence:</b>				
Bridgeport	1,890	11.0%	1,834	11.1%
Hartford	2,132	10.3%*	1,998	9.5%
New Haven	1,406	8.7%	1,433	8.9%
Other towns	10,574	9.0%	9,749	8.9%
<b>Language:</b>				
English	13,795	9.2%	13,455	9.0%
Spanish	1,526	12.0%	1,407	11.8%
Other	95	9.1%	85	8.3%
Unknown	586	8.7%	67	8.5%
<b>Health Plan:</b>				
BlueCare	5,634	8.4%	5,222	8.2%
CHNCT	2,949	10.8%	2,801	10.4%
HealthNet	4,713	9.4%	4,859	9.3%
Preferred One	1,016	9.1%*	586	7.7%
Changed Plans	1,690	11.2%	1,480	11.2%

\*Indicates significant difference (p<0.05) between values for CY 2003 and CY 2004

**Table 2. Asthma-related health care utilization**

	CY 04	CY 03
<b>Ambulatory care visits (average)</b>	4.2	4.2
<b>Children with asthma who:</b>		
<b>Had at least one ER visit</b>	25.1%	23.6%
<b>Were hospitalized</b>	4.0%	4.4%

**Follow-up after emergency care and hospitalization:**

Less than one in five children who had emergency care for asthma in 2004 received follow-up care within 2 weeks of the visit, as recommended (Table 3). This rate is essentially unchanged from the previous year overall (20%) or in any managed care plan. Children in BlueCare who were seen in the ER for treatment of asthma were more likely than children in Preferred One to have had ambulatory care follow-up. Follow-up after hospitalization for treatment of asthma (43%) was essentially unchanged from the previous year (40%) overall (40%) and in any managed care plan.

**Table 3. Follow-up After ER Visit or Hospitalization for Asthma**

	Seen within 2 weeks <sup>a</sup>	
	After ER visit	After discharge
<b>BlueCare</b>	22%	52%
<b>CHNCT</b>	18%	46%
<b>Health Net</b>	17%	36%
<b>Preferred One</b>	13%	33%

<sup>a</sup> Ambulatory care visit for asthma or related diagnosis

**Conclusions**

- Nine percent of children enrolled in HUSKY A in 2004 received health care for asthma.
- Persistent racial/ethnic disparities in asthma prevalence exist among children in HUSKY A.
- Few children who receive emergency care or are hospitalized for asthma receive timely follow-up care, as recommended in treatment guidelines.

<sup>1</sup> Connecticut Voices for Children is a non-profit organization that conducts research and policy analysis on children's issues. This report on asthma was prepared under a contract with the Connecticut Department of Social Services and a grant from the Hartford Foundation for Public Giving. Performance monitoring in HUSKY A builds on work begun by the Children's Health Council, which was created by the Connecticut General Assembly in 1995 and charged with evaluating the impact of Medicaid managed care on children's health services. Connecticut Voices for Children contracts with MAXIMUS, Inc. for data management and data analysis. This report was prepared under the direction of Mary Alice Lee, Ph.D., Senior Policy Fellow. A detailed report is available at [www.ctkidslink.org](http://www.ctkidslink.org).

<sup>2</sup> National Heart, Lung, and Blood Institute. Guidelines for diagnosis and management of asthma. Bethesda, MD: NHLBI, 1997.