

Asthma in Colorado Children



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To view this brief online:
<http://www.cdphe.state.co.us/ps/asthma/asthmahom.asp>

What is Asthma?

Asthma is a chronic disease that affects the lungs. Common symptoms of asthma include, coughing (especially at night or early morning), wheezing, shortness of breath, chest pain, tightness in the chest, and difficulty exercising.

The severity of asthma varies from child to child and severity may worsen or improve depending on how well the asthma is controlled with medications and the amount of exposure to triggers or allergens. Some children may only have occasional symptoms, while others have symptoms that interfere with their daily life, including their ability to participate in sports and concentrate in school.

Colorado Child Health Survey

This brief presents data from the Colorado Child Health Survey which is a population-based weighted survey that collects data regarding the health status and risk behaviors of children ages one to 14 years old. To reach parents of young children, a random digit dialing telephone survey method is used. Children are identified from the adult respondents to the BRFSS (Behavioral Risk Factor Surveillance System); once a respondent has completed the BRFSS, the interviewer inquires as to if they have a child in the target age range and their willingness to complete the child health survey. The data were weighted to reflect the general population of Colorado children one to 14 years old.

Impact of Asthma on Colorado's Children

Asthma is the most common chronic condition in children, affecting over 6.2 million children under the age of 18 nationally and over 89,000 children between the ages of one and 14 in Colorado, in 2004. **Figure 1** displays the prevalence of Colorado children who have ever been given a diagnosis of asthma by a health care provider (12.5%) and those who reported currently having asthma (10%). Almost 40% (39.7%) reported missing at least one school day of school in the past year due to their asthma. Considering the high prevalence of asthma this corresponds to over half a million missed school days per year in Colorado.

Figure 1: Asthma prevalence in Colorado children ages 1-14, 2004

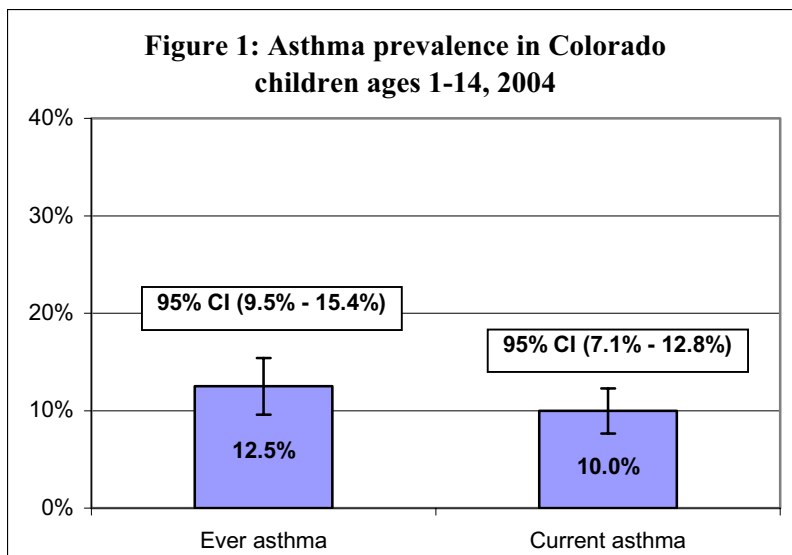
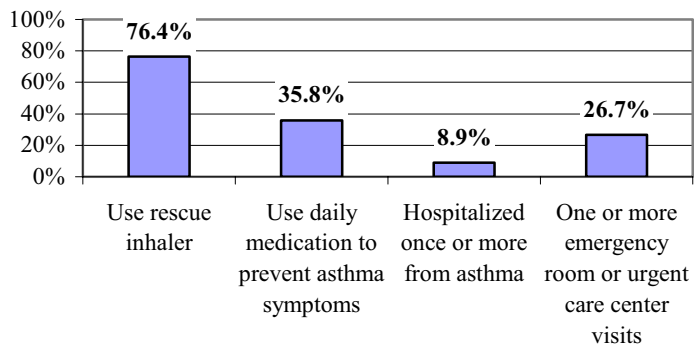


Figure 2: Asthma treatment, Colorado children ages 1-14, 2004



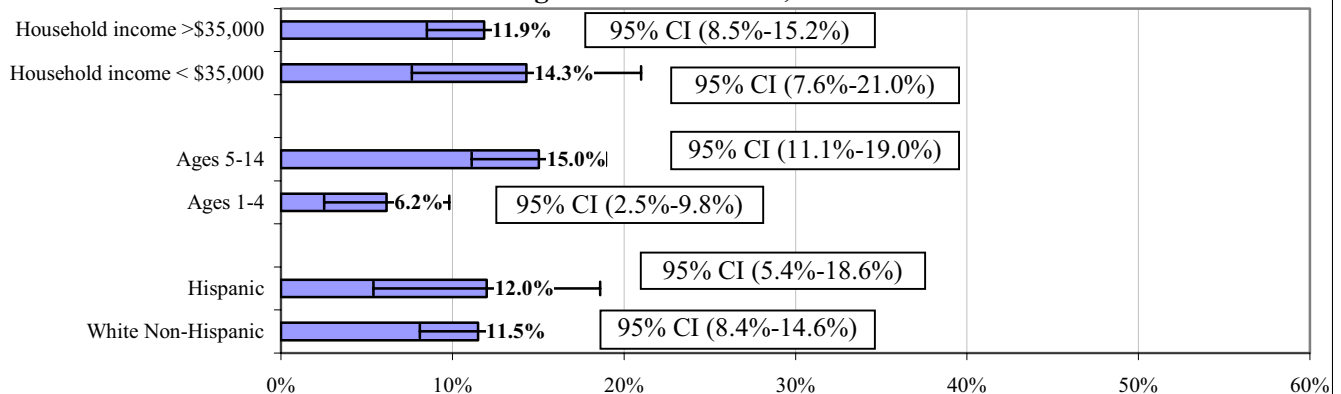
Prevention of Asthma Morbidity

A key strategy to reduce morbidity and mortality associated with asthma depends upon controlling exposure to factors that trigger asthma episodes and adequately managing asthma with medicine. Children are said to have persistent asthma if they experience asthma symptoms more than 2 times a week or awoken at night with symptoms more than twice a month. Treatment should emphasize daily long-term therapy (inhaled corticosteroids) aimed at reducing the underlying inflammation and preventing

symptoms, rather than relying solely on treating symptoms with short-acting inhaled medication, such as a beta-agonist (e.g. Albuterol).

As shown in **Figure 2**, only 35.8% of Colorado children with asthma were on a daily medication. More than a quarter of the children with asthma reported an emergency room or urgent care visit for their asthma in the past year (26.7%), and 8.9% reported an overnight hospital stay.

Figure 3: Demographic characteristics of Colorado children ages 1-14, who have ever been diagnosed with asthma, 2004



Demographic Trends of Asthma among Colorado Children

In Colorado, the burden of asthma in children vary by socio-economic indicators. It is important to consider disproportionate impact of asthma when allocating limited funding and designing interventions that will be most effective.

Figure 3 displays the prevalence of Colorado children who have ever received an asthma diagnosis by income, gender, race/ethnicity. Children who live in a household with a total income less than \$35,000 had a slightly higher prevalence than children from households earning more than \$35,000 per year. The estimated prevalence for Black children was significantly higher than that of non-Hispanic white and Hispanic children (95% confidence interval of 24.0% - 81.5%) suggesting a subpopulation with higher burden. Due to the relatively small Black population in Colorado (3.8% reported in the 2000 Census¹), the number of Black respondents to the Child Health Survey was not large enough to obtain reasonably precise estimates, however future years of data collection will allow for aggregation of multiple years to obtain more precise point estimates and narrower confidence intervals.

¹ *US Census*: <http://quickfacts.census.gov/qfd/states/08000.html>