

# 2013 GEORGIA DATA SUMMARY | CHILD ASTHMA

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. The airway muscles tighten and the airway lining swells, thus making the airways very narrow leading to difficulty in breathing. Asthma symptoms include wheezing, coughing, chest tightness, and shortness of breath<sup>1</sup>.

## ASTHMA PREVALENCE<sup>a</sup>:

- In 2010, the overall prevalence of asthma among children in Georgia (aged 0-17 years) was 9.0%. About 14.5% of children in Georgia had been told at some point that they had asthma.
- Asthma prevalence was higher in boys (9.7%) than girls (8.5%).
- Asthma prevalence was higher among non-Hispanic black children (10.3%) than among non-Hispanic white children (8.4%).
- Asthma prevalence was lower among younger children aged 0-4 years old (5.7%) than among children 5 years and older (10.8%).
- Asthma prevalence was higher among children whose family annual household income was less than \$15,000 (13.9%) than among children from families making \$50,000 or more per year (8.9%).

## ASTHMA HOSPITALIZATIONS<sup>b</sup>:

In 2010 in Georgia, there were 2,965 asthma related hospitalizations among children 0-17 years of age.

- The direct cost for asthma-related hospitalizations among these children amounted to more than \$27.8 million.
- The overall asthma related hospitalization rate among individuals in this age group was 119 per 100,000.
- The rate of hospitalization was highest among children aged 0-4 years (208 per 100,000), in contrast to the lower prevalence of asthma found among children in this age group. This discrepancy between prevalence and hospitalization rates could be due to the difficulty in properly diagnosing asthma among younger kids until they are hospitalized or go to the Emergency Room (ER).
- The rate of asthma hospitalization was higher among males (146/100,000) than females (56 per 100,000). This male/female ratio was opposite to that among adults with asthma.
- The overall asthma hospitalization rate was more than two times higher for black children (191 per 100,000) than for white children (78 per 100,000) and this was consistent across each age group.

Figure 1. Prevalence of Asthma among Children in Georgia, by Age, 2010

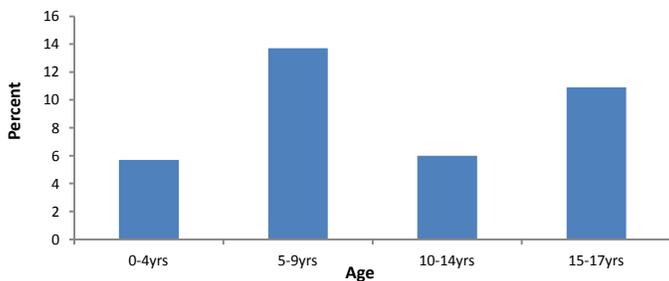
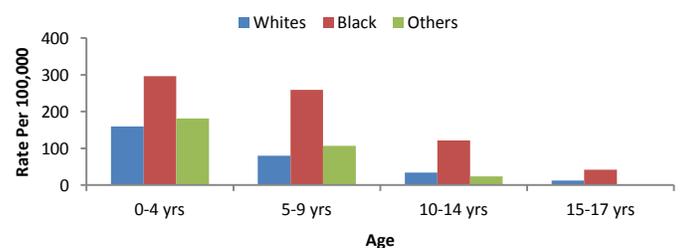


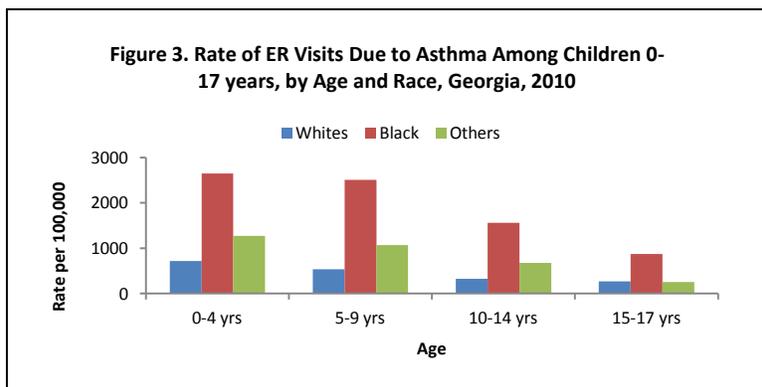
Figure 2. Asthma Hospitalization Rate among Children 0-17 Years, By Age and Race, Georgia, 2010



## ASTHMA ER VISITS<sup>c</sup>:

In Georgia, among children 0-17 years, there were 25,930 asthma-related ER visits in 2010. This represented a rate of 1039 per 100,000.

- In 2010, the direct cost of ER visits due to asthma among children was \$32.8 million.
- The ER visit rate was higher among boys (1260 per 100,000) than among girls (809 per 100,000).
- The rate of asthma related ER visits among children decreased as age increased. Children 0-4 years had the highest ER visit rate (1426 per 100,000).
- The ER visit rate was higher among black children. Overall rate among black children was about four times higher (1985 per 100,000) than among white children (483 per 100,000) (Figure 3).



**NOTE:** Others category include Asian, American Indians/Alaska Natives, Native Hawaiian/Pacific Islander

## ASTHMA CONTROL (2006-2010)<sup>d</sup>:

- The Expert Panel Report 3 (EPR-3) guidelines for the diagnosis and management of asthma recommends assessing asthma control using 3 measures - the number of days in a month that asthma symptoms occurred, number of nighttime awakenings in a month, and the use of short acting beta agonists (SABA).
- In Georgia during 2006-2010, approximately 39% of children had their asthma well controlled. Thirty percent and 31% of children with asthma had their asthma not well controlled and very poorly controlled respectively.
- About 78% of children with asthma had been taught how to recognize the early symptoms of asthma.

## OTHER ASTHMA ISSUES IN GEORGIA, 2006-2010<sup>d</sup>:

- The majority of the children with asthma (56%) had no asthma action plan.
- About 55% of children with asthma missed at least one school day in the past 12 months due to asthma.
- About 58% of children with asthma had no flu vaccination in the previous 12 months.
- About 63% of school aged children with asthma were allowed to bring medication to school.
- About 9% of children with asthma resided in a home where someone smoked inside.

## ASTHMA PREVENTION AND MANAGEMENT

### Know the common triggers

- Tobacco smoke
- Dust mites
- Pets (animal dander)
- Cockroaches
- Fungi and molds (indoor and outdoor)

### Take control of asthma

- Reduce exposure to your triggers
- Work with your doctors to create an asthma management plan
- Monitor your breathing and airways with a peak flow meter, as recommended by your doctor
- Treat symptoms early
- Learn when to seek medical help

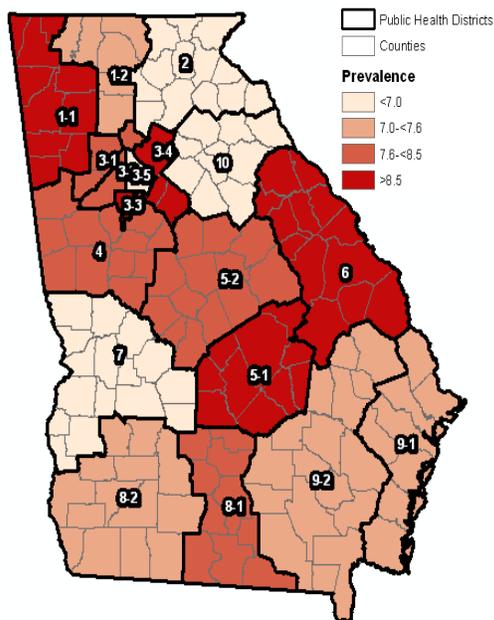
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## REGIONAL DIFFERENCES IN ASTHMA PREVALENCE, HOSPITALIZATION AND ER VISITS <sup>a-d</sup>:

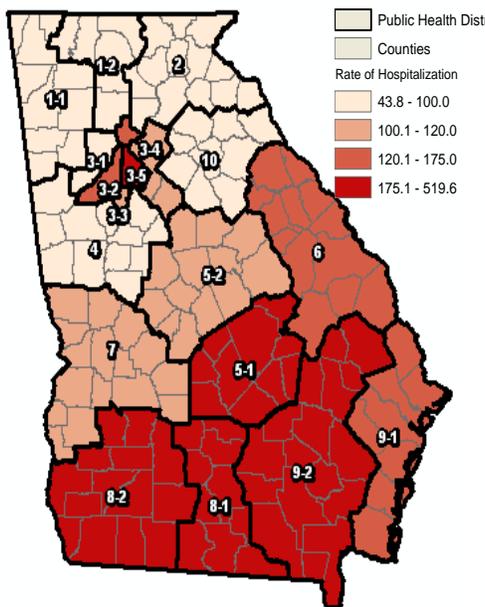
The rates of child asthma prevalence, hospitalizations and ER visit had regional differences (by Health District).

- Four Health Districts with the highest child asthma prevalence were Clayton, Valdosta, Dublin and Waycross with prevalence of 14.2%, 14.1%, 13% and 12.2% respectively (Map 1).
- Five Health Districts with the highest asthma hospitalization rate in 2010 were Dublin, Valdosta, DeKalb, Albany and Waycross with rates of 520, 220, 190, 178, and 176 per 100,000 respectively (Map 2).
- Five Health Districts with highest ER visit rate were DeKalb, Augusta, Fulton, Jonesboro and Albany with rates ranging from 1200 per 100,000 in Albany to 1816 per 100,000 in DeKalb (Map 3).

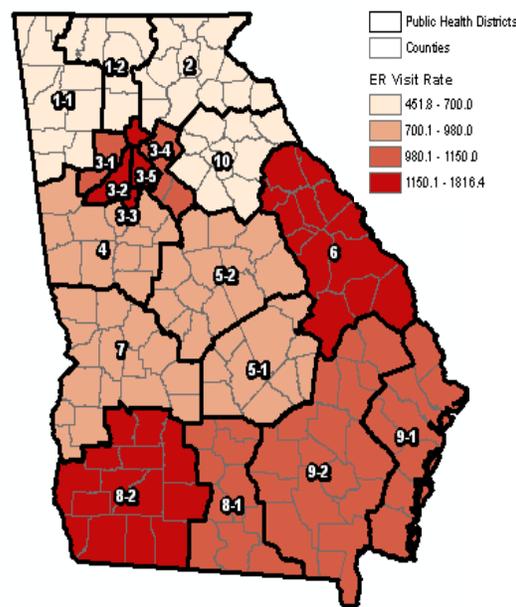
**Map 1. Asthma Prevalence among Children 0-17 years, by Health District, Georgia, 2010**



**Map 2. Rate of Asthma Hospitalization among Children 0-17 years, by Health District, Georgia, 2010**



**Map 3. Rate of Asthma ER visit among children 0-17 years, by Health District, Georgia, 2010**



- 1-1** Northwest (Rome)
- 1-2** North Georgia (Dalton)
- 2** North (Gainesville)
- 3-1** Cobb/Douglas
- 3-2** Fulton
- 3-3** Clayton County (Jonesboro)

- 3-4** East Metro (Lawrenceville)
- 3-5** DeKalb
- 4** LaGrange
- 5-1** South Central (Dublin)
- 5-2** North Central (Macon)
- 6** East Central (Augusta)

- 7** West Central (Columbus)
- 8-1** South (Valdosta)
- 8-2** Southwest (Albany)
- 9-1** Coastal (Savannah)
- 9-2** Southeast (Waycross)
- 10** Northeast (Athens)

## Data Sources

### a. 2010 Georgia Behavioral Risk Factor Surveillance Survey (BRFSS)

The BRFSS is a stratified random-digit dial telephone interview conducted among Georgia non-institutionalized residents 18 years and older to ascertain their health conditions, behaviors, and the use of preventive services. The survey is conducted in conjunction with the Centers for Disease Control and Prevention (CDC).

### b. 2006-2010 Georgia Asthma Call Back Survey (ACBS)

This survey is conducted approximately two weeks after the BRFSS. BRFSS respondents who report ever being diagnosed with asthma are eligible to participate in the asthma call-back. However, call back is made only to individuals who consented to be called back for this special survey.

### c. 2010 Georgia Hospital Inpatient Discharge Data

Emergency room (ER) visit data are based on Georgia residents who were seen in the ER of non-federal acute care hospitals in Georgia with asthma as the primary diagnosis. The ICD-9 codes (493.0-493.9) were used to select ER visits. Rates were age-adjusted to the 2000 US standard population via the direct method.

### d. 2010 Georgia Emergency Room Visit Data

Hospitalization data are based on hospital discharge data for Georgia residents who were hospitalized in non-federal acute care hospitals with asthma as the primary diagnosis. The ICD-9 codes (493.0-493.9) were used to select hospitalizations. Rates were age-adjusted to the 2000 US standard population via the direct method.

## Some Definitions

**Well controlled asthma** – Had asthma symptoms  $\leq 8$  days in the past 30 days, or  $\leq 1$  day of nighttime awakening in the past 30 days or  $\leq 0.29$  use of SABA per day.

**Not well controlled asthma** – Had asthma symptoms more than 8 days in the past 30 days but not throughout the day, or  $\geq 5$  days of nighttime awakening for children 0-4 years old /  $\geq 9$  days of nighttime awakening for children 5-11 years old in the past 30 days, or  $> 0.29$  and  $< 2.0$  use of SABA per day.

**Very poorly controlled asthma** – Had asthma symptoms everyday in the past 30 days and throughout the day, or  $\geq 13$  days of nighttime awakening in the past 30 days, or  $\geq 2$  use of SABA per day.

**Note:** These definitions are based on the EPR-3 recommendations

**Statistical Significance:** Results considered statistically significant if there was no overlap in the 95% confidence intervals (95% CI) of the percentages being compared

## Reference

1. U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Respiratory Diseases. Healthy People 2020. Washington, DC. Accessed on 2/9/2013. Available at <http://www.health.state.ga.us/pdfs/epi/cdiee/2012%20Asthma%20Surveillance%20Report.pdf>.