

# 2015 GEORGIA DATA SUMMARY | ADULT 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 2013, the overall asthma prevalence among adult Georgians (persons aged 18 years and older) was 8.4%. Differences in asthma prevalence existed by demographic characteristics.

- Asthma prevalence was significantly lower among males (5.2%; 95% CI: 4.3-6.4) than females (11.3%; 95% CI: 10.1-12.5).
- Asthma prevalence was higher among non-Hispanic black, especially non-Hispanic black women, than among other racial/ethnic groups (Figure 1).
- Asthma prevalence was higher among those aged 18-24 years (13.0%; 95% CI: 10.0-16.8), than other age groups.
- Asthma prevalence increased with decreasing annual household income as well as with decreasing education. Asthma prevalence was more than three times higher among adults whose annual household income was less than \$15,000 than among those making \$75,000 or more per year (Figure 2). Prevalence was significantly higher among individuals with less than a high school diploma (11.0%; 95% CI: 8.7, 13.9) than among college graduates (7.0%; 95% CI: 5.8, 8.3).
- There was no significant difference in asthma prevalence between those with or without health insurance coverage.

## ASTHMA AND OTHER CONDITIONS<sup>a</sup>:

Epidemiologic studies suggest an association between obesity and asthma<sup>2</sup> as well as smoking and asthma<sup>3</sup>.

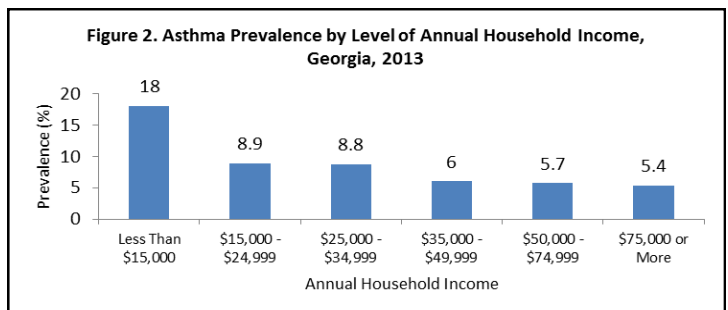
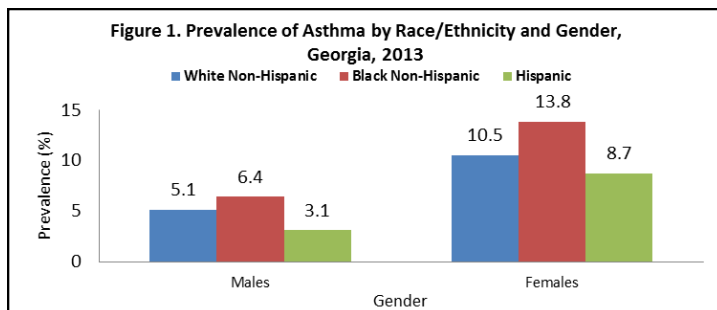
- In Georgia during 2013, the prevalence of asthma was significantly higher among those who were obese (10.8%; 95% CI: 9.2, 12.4) than those who were not obese (7.6%; 95% CI: 6.6, 8.5).
- Asthma prevalence was higher among current smokers (10.4%; 95% CI: 8.1, 12.6) than among those who were not current smokers (8.1%; 95% CI: 7.2, 8.9).
- Asthma prevalence was significantly higher among those who reported they were in fair or poor health (15.1%; 95% CI: 12.9, 17.4) than those who reported they were in good, very good, or excellent health (6.8%; 95% CI: 6.0, 7.6).
- During 2013, 37.1% (95% CI: 32.3, 41.9) of Georgia adults with asthma received seasonal flu vaccination compared to 33.3% (95% CI: 31.7, 34.8) of adults without asthma.

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

From the Asthma Call Back Survey (ACBS), three measures are used to assess asthma control: 1.) the number of days in a month that asthma symptoms occurred; 2.) number of nighttime awakenings in a month; and, 3.) and the use of short acting beta agonists (SABA).

- In Georgia during 2011-2012, about 40% of adults with active asthma had their asthma well controlled\*; 23% had their asthma not well controlled\*; and 37% had their asthma very poorly controlled\*.
- About 31% of adults with active asthma had 9 or more nights in the past 30 days when they had difficult sleeping due to asthma.
- 36% of adults with asthma had an asthma action plan.

\* Definitions for asthma control are available on the reference page.



## OCCUPATION AND ASTHMA<sup>b</sup>:

- In 2011-2012 in Georgia, 31% of adults with asthma indicated they were unable to work or carry out usual activities on one or more days in the past 12 months due to asthma.
- About 20% of Georgia adults with asthma indicated their asthma was caused or made worse by their previous job.
- About 5% of Georgia adults with asthma indicated their asthma was caused or made worse by their current job.
- About 8% of Georgia adults with asthma had been told by a health professional that their asthma was work-related.

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

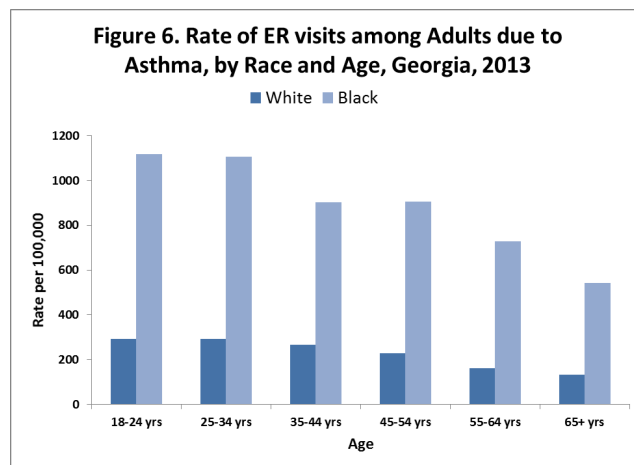
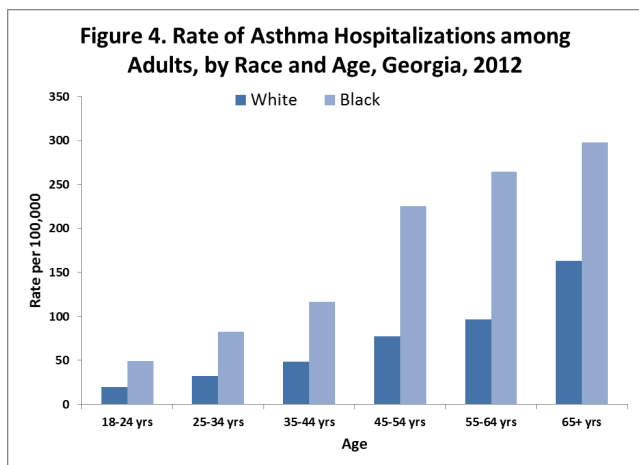
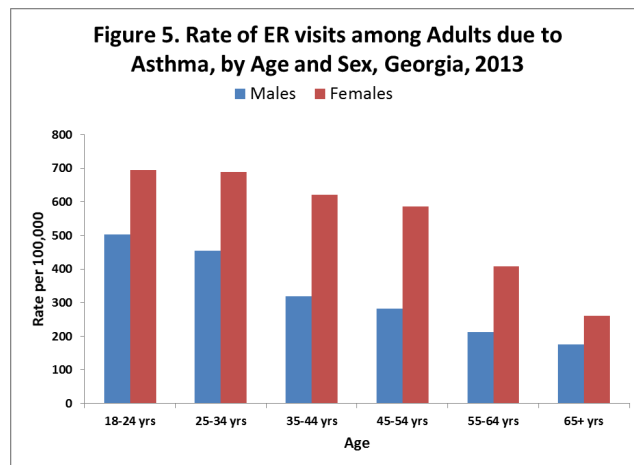
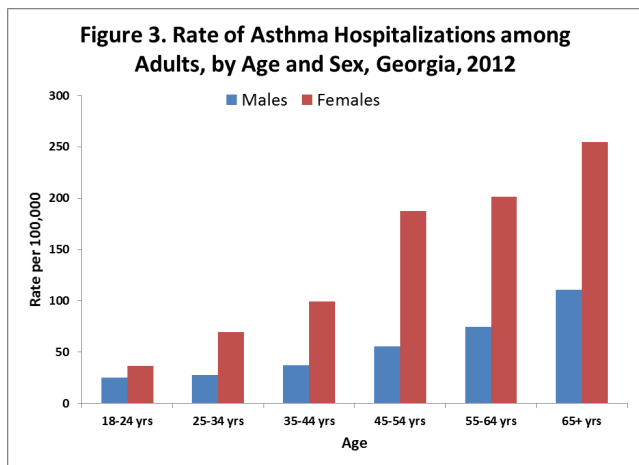
In Georgia during 2012, there were 7,164 asthma related hospitalizations (a rate of 99 per 100,000) among adults 18 years and older. (The age-adjusted rate for asthma related hospitalizations in Georgia was 103.7 per 100,000)

- In 2012, the total charges for asthma-related hospitalizations among adults 18 years and older totaled \$150.6 million.
- As age increased, the rate of asthma hospitalizations also increased (194/100,000 for those 65+ years vs. 31/100,000 for those 18-24 years.)
- The overall rate of hospitalizations due to asthma was more than two times higher among females (143/100,000) than among males (52/100,000). This general trend was consistent for all age groups.
- Among each age group, the rate of asthma hospitalization was more than two times higher for blacks (159/100,000) than whites (75/100,000).

## ASTHMA EMERGENCY ROOM (ER) VISITS<sup>d</sup> :

In Georgia during 2012, there were 31,929 ER visits (a rate of 443 per 100,000) due to asthma for adult Georgians 18 years and older. (The age-adjusted rate for ER visits due to asthma in Georgia was 619.2 per 100,000)

- In 2012, the total charges for asthma-related ER visits among adults 18 years and older totaled \$68.1 million.
- The ER visit rate among adults was higher among females (547/100,000) than males (330/100,000).
- The ER visit rate decreased with increasing age, in contrast to the asthma hospitalization rate that increased with increasing age.
- In Georgia during 2012, the overall asthma ER visit rate for blacks was about four times higher (919/100,000) than for whites (227/100,000). This trend was consistent across all age groups, with highest differences among those older than 55 years.

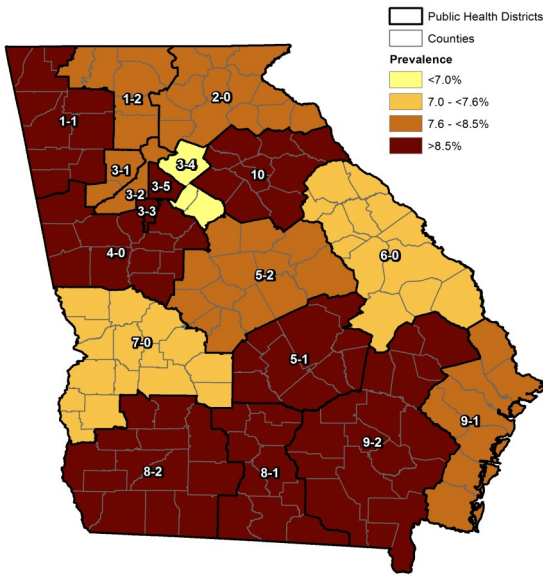


## REGIONAL DIFFERENCES IN ASTHMA PREVALENCE, HOSPITALIZATION RATES, AND ER VISIT RATES<sup>a-d</sup>:

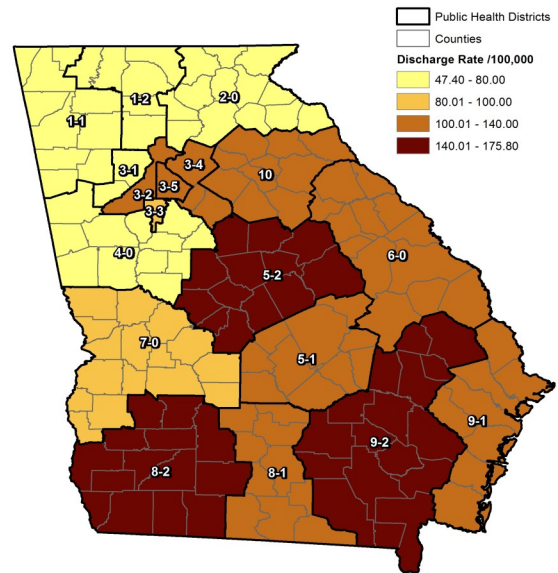
In Georgia, adult asthma prevalence, hospitalization rates and ER visit rates differed by region (Public Health District).

- From 2011-2013, 10 of 18 Districts had asthma prevalence above 8.5%. The five Public Health Districts with highest prevalences were Waycross (9-2), DeKalb (3-5), Dublin (5-1), Valdosta (8-1), and Rome (1-1). (Map 1).
- In 2012, the five Public Health Districts with the highest asthma hospitalization rates were Albany (8-2), Macon (5-2), Waycross (9-2), Dublin (5-1), and Valdosta (8-1). (Map 2).
- In 2012, the five Public Health Districts with the highest asthma ER visit rates were Jonesboro (3-3), Fulton (3-2), DeKalb (3-5), Albany (8-2), and Savannah (9-1). (Map 3).

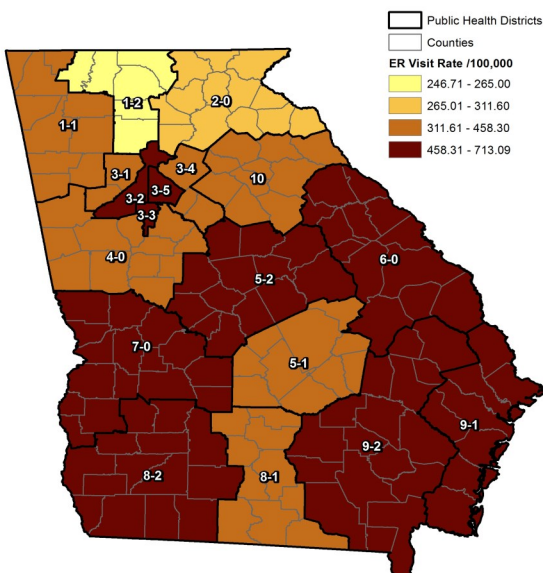
**Map 1. Asthma Prevalence, by Health District Georgia, 2011-2013**



**Map 2. Asthma Hospitalization Rates, by Health District Georgia, 2012**



**Map 3. Asthma ER Visit Rates, by Health District Georgia, 2012**



### Health Districts in Georgia

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. 2013 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. 2011-2012 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 survey. However, call back is made only to individuals who consented to be called back for this special survey.

### c. 2012 Georgia Hospital Inpatient Discharge 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.

### d. 2012 Georgia Emergency Room Visit Data

Emergency room (ER) visit data are from 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.

## Additional Definitions :

**Well controlled asthma** – Had asthma symptoms  $\leq 8$  days in past 30 days, or  $\leq 2$  days of nighttime awakening in 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  $\geq 3$  and  $\leq 12$  days of nighttime awakening in past 30 days or  $> 0.29$  and  $< 2.0$  use of SABA per day.

**Very poorly controlled asthma** – Had asthma symptoms every day 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 Expert Panel Report (EPR-3) recommendations by the National Asthma Education and Prevention Program (NAEPP).

**Statistical Significance:** In this report, estimates were considered statistically significantly different if their 95% confidence intervals did not overlap.

## References:

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>.
2. Ford ES. The epidemiology of obesity and asthma. *J Allergy Clin Immunol* 2005; 115:897–909.
3. Stapleton M, Howard-Thompson A, George C, Hoover RM, Self TH. Smoking and asthma. *J Am Board Fam Med*. 2011; 24(3):323-22.
4. Online Analytical Statistical Information System (OASIS) Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP). (January 2013) <http://oasis.state.ga.us/>