

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 threatening¹.

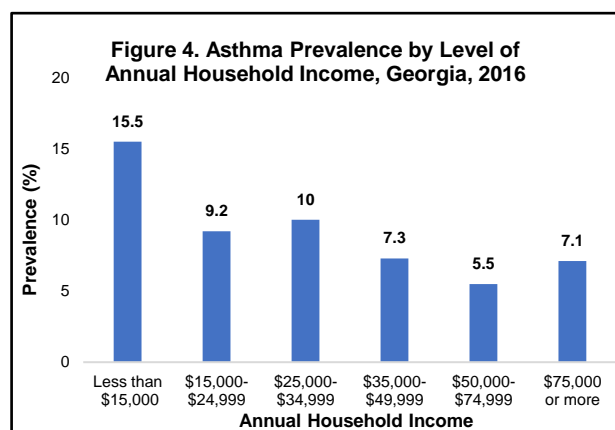
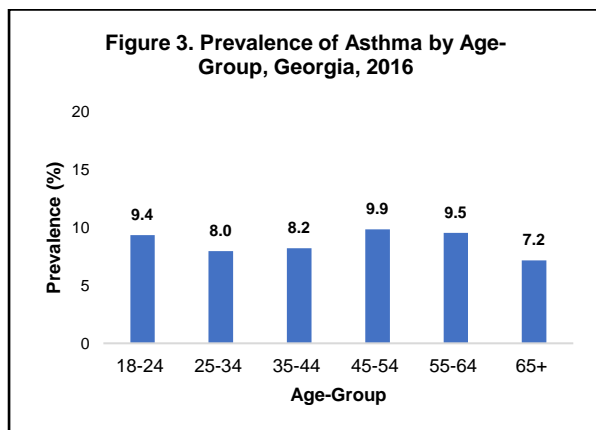
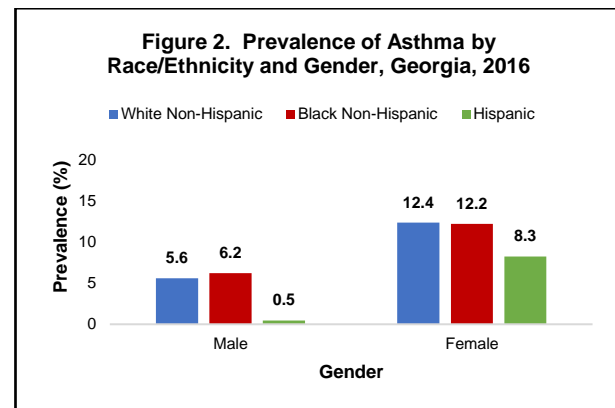
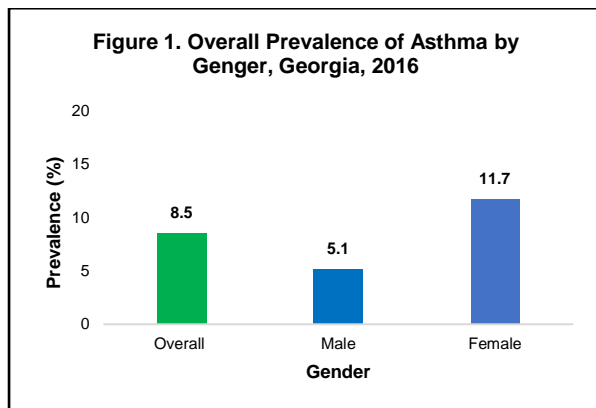
ASTHMA PREVALENCE^a: (Table 1)

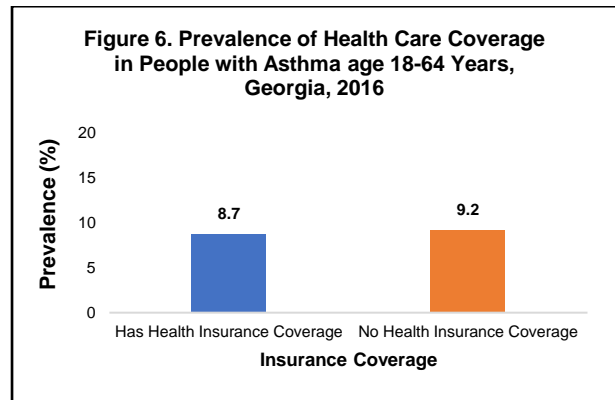
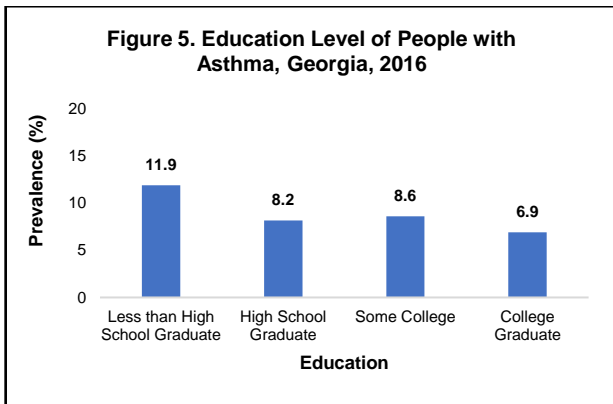
In 2016, the overall asthma prevalence among adult Georgians (persons age 18 years and older) was 8.5% (Figure 1). Differences in asthma prevalence existed by demographic characteristics.

- Asthma prevalence was significantly higher among females than males (11.7% vs 5.1%) (Figure 1)
- Asthma prevalence was nearly seven times higher among Hispanic women than Hispanic men (Figure 2)
- There was no significant difference of asthma prevalence between age groups, although it was highest among those 45-54 years of age (9.9%) (Figure 3)
- Asthma prevalence was highest among adults whose annual household income was less than \$15,000 (15.5%).(Figure 4)
- Prevalence was significantly higher among individuals with less than a high school diploma than among college graduates (11.9% vs 6.9%) (Figure 5)
- There was no statistically significant difference in asthma prevalence between those with or without health insurance coverage (9.3% vs 7.8%) (Figure 6)

ASTHMA AND OTHER CONDITIONS^a: (Table 2)

- In 2016, the prevalence of asthma was significantly higher among those who were obese (BMI \geq 30) than those who were not obese (13.7% vs 6.3%)
- Asthma prevalence among current smokers is 9.8%. In 2016, asthma prevalence among smokers was not significantly different than non-smokers (9.8% vs 8.4%)
- Asthma prevalence was significantly higher among those who reported they had no exercise or physical activity in the last 30 days than those who exercised in the last 30 days (11.1% vs 7.5%)
- In 2016, there was no significant difference among Georgia adults with or without asthma receiving a flu vaccine (41.6% vs 34.6%)





ASTHMA HOSPITALIZATIONS^b:

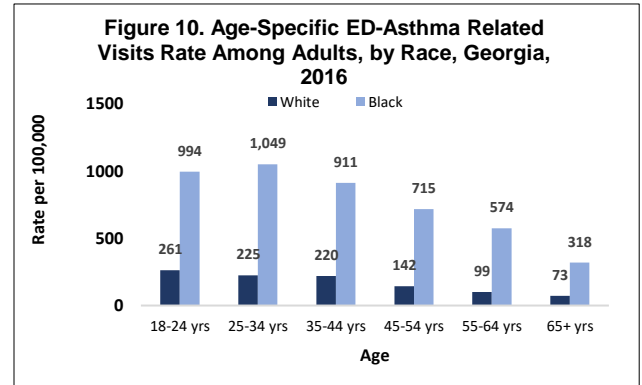
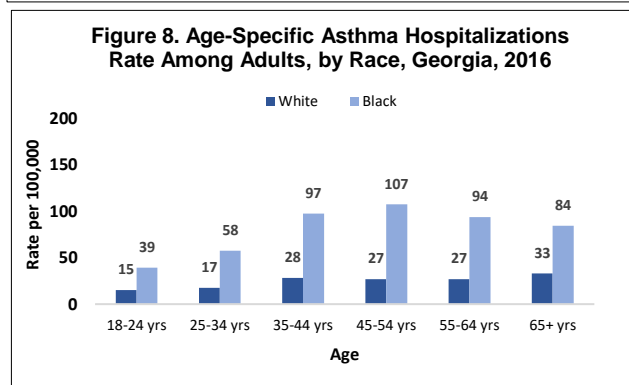
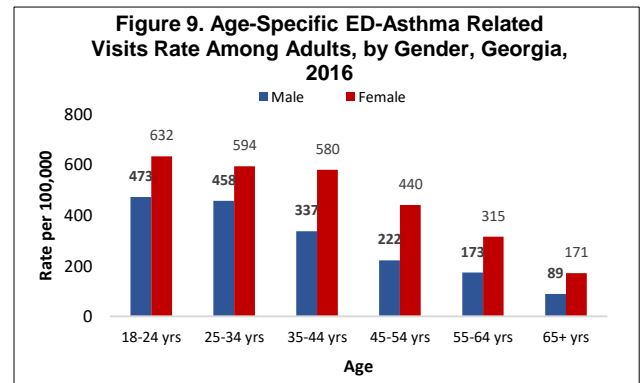
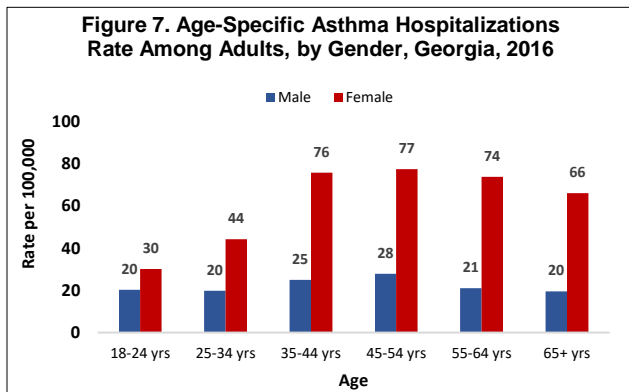
In Georgia during 2016, there were 3,379 asthma-related hospitalizations among adults 18 years and older, a rate of 43 per 100,000.

- In 2016, the total charges of asthma-related hospitalizations among adults 18 years and older were \$81 million.
- The overall asthma-related hospitalization rate was more than two times higher among females (63/100,000) than among males (22/100,000).
- As age increased (**Figure 7**), the rate of females' asthma hospitalizations increased.
- For each age-group, asthma-related hospitalization rate was more than two times higher for blacks (80/100,000) than whites (25/100,000) (**Figure 8**).

ASTHMA EMERGENCY DEPARTMENT (ED) VISITS^c:

In Georgia during 2016, there were 28,990 ED visits due to asthma for adults, a rate of 371 per 100,000.

- In 2016, the total charges for asthma-related ED visits among adults 18 years and older were \$85.4 million.
- The rate of ED visits decreased with increasing age (**Figure 9**), in contrast to the asthma hospitalization rate, which shows an increasing trend.
- The ED visits rate among adults was higher among females (444/100,000) than males (292/100,000).
- In 2016, the overall asthma-related ED visits rate for blacks was approximately four times higher than whites (790 vs 162/100,000; **Figure 10**). This is similar to the trend seen in previous years.

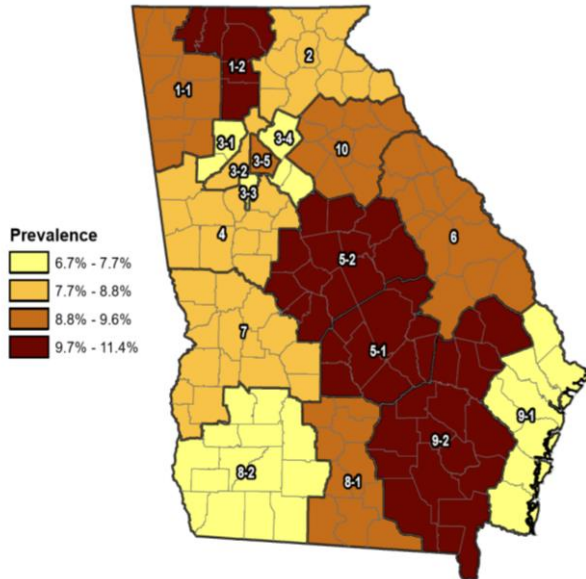


REGIONAL DIFFERENCES IN ASTHMA PREVALENCE, HOSPITALIZATION RATES, AND ED VISITS RATES:

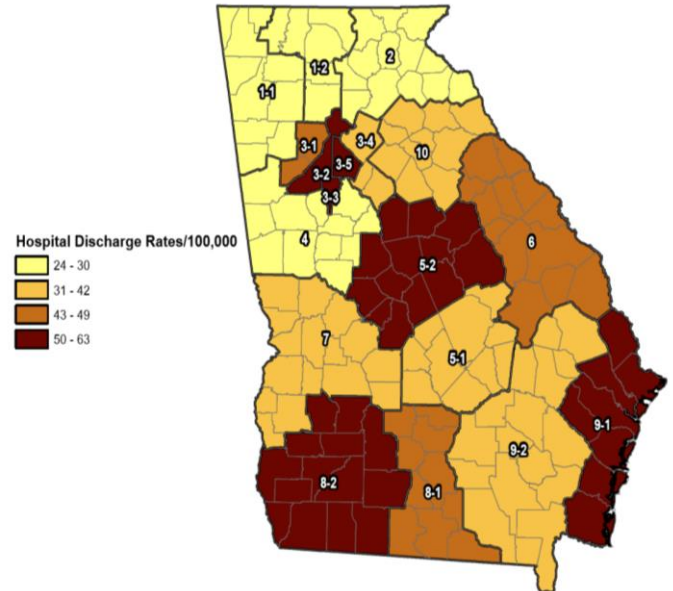
In Georgia, adult asthma prevalence, hospitalization rates and ER visit rates differed by Public Health District (PHD).

- From 2014-2016, four PHDs with the highest prevalence of adult asthma were Dalton (1-2), South Central (5-1), North Central (5-2), and Southeast (9-2), with rates of 10.8%, 10.6%, 11.4%, and 10.8%, respectively. (Map1)
- In 2016, five PHDs with the highest asthma hospitalization rates were Fulton (3-2), DeKalb (3-5), North Central (5-2), Southwest (8-2), and Coastal (9-1), with rates of 55, 63, 51, 51, and 63 per 100,000, respectively. (Map 2)
- In 2016, four PHDs with the highest asthma ED visit rates were Fulton (3-2), Clayton County (3-3), DeKalb (3-5), and North Central (5-2), with rates of 527, 599, 458, and 483 per 100,000, respectively. (Map 3)

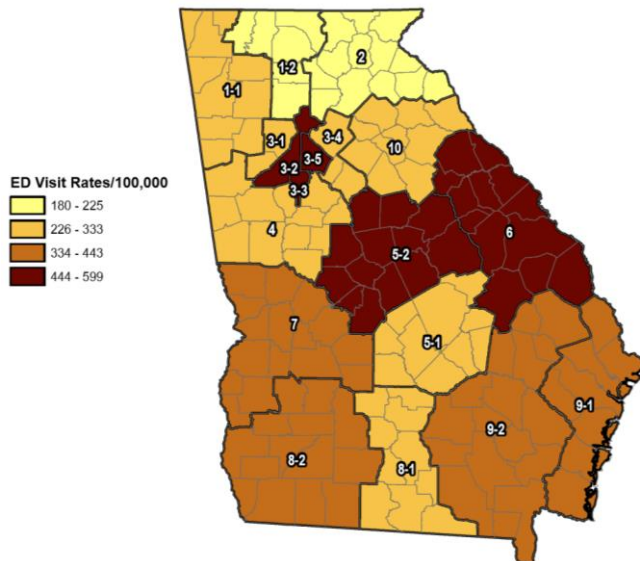
Map 1. Asthma Prevalence, Among Adults, by PHD, Georgia, 2014-2016



Map 2. Asthma Hospitalization, Among Adults, by PHD, Georgia, 2016



Map 3. Asthma ED Visits, Among Adults, by PHD, Georgia, 2016



Data Sources

a. 2014-2016 Georgia Behavioral Risk Factor Surveillance System (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 collaboration with the Centers for Disease Control and Prevention (CDC).

b. 2016 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. In October of 2015, medical coding for inpatient hospital discharges changed from ICD-9 CM to ICD-10 CM. The ICD-10 code: J45 was used to select hospitalizations, based on the Centers for Disease Control and Prevention (CDC) definition.

c. 2016 Georgia Emergency Department Visit Data

Emergency department (ED) visit data are from Georgia residents who were seen in the ED of non-federal acute care hospitals in Georgia with asthma as the primary diagnosis. In October of 2015, medical coding for inpatient hospital discharges changed from ICD-9 CM to ICD-10 CM. The ICD-10 code: J45 was used to select hospitalizations, based on the Centers for Disease Control and Prevention (CDC) definition.

Statistical Significance: In this report, estimates were considered statistically significantly different if the chi-square test p-value was less than 0.05.

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>.

Table 1. Demographic Prevalence of People with Asthma in Georgia, 2016

DEMOGRAPHICS	PREVALENCE	CONFIDENCE INTERVALS (CI)
Overall Asthma in Population	8.54	7.56-9.63
Sex		
Male	5.13	4.09-6.42
Female	11.71	10.16-13.46
Race		
White non-Hispanic, male	5.61	4.23-7.41
White non-Hispanic, female	12.39	10.38-14.72
Black non-Hispanic, male	6.22	4.10-9.33
Black non-Hispanic, female	12.23	9.42-15.74
Hispanic, male	0.46	0.09-2.38
Hispanic, female	8.26	3.60-17.86
Age-Group		
18-24	9.35	6.02-14.25
25-34	7.96	5.69-11.03
35-44	8.21	5.99-11.16
45-54	9.85	7.66-12.57
55-64	9.54	7.55-11.99
65+	7.15	5.89-8.66
Income		
<15k	15.47	11.35-20.75
15k-24k	9.20	6.82-12.30
25k-34k	9.97	6.99-14.03
35k-49k	7.30	5.08-10.37
50k-74k	5.48	3.57-8.32
75k+	7.08	5.38-9.27
Insurance Status		
Has Health Insurance Coverage	9.27	7.97-10.75
No Health Insurance Coverage	7.79	5.48-10.95
Education		
Less than High School Graduate	11.87	8.94-15.59
High School Graduate	8.16	6.35-10.43
Some College	8.58	6.84-10.71
College Graduate	6.89	5.62-8.43

Table 2. Prevalence of Health Behaviors of People Living with and without Asthma in Georgia, 2016

HEALTH BEHAVIOR	PREVALENCE (Current Asthma)	CONFIDENCE INTERVALS (CI)
Level of Physical Activity		
Exercise/Physical Activity (PA) in last 30 days	7.46	6.36-8.75
No Exercise/Physical Activity (PA) in last 30 days	11.07	9.20-13.27
Health Condition		
Obese	13.74	11.50-16.35
Not obese	6.32	5.29-7.55
Smoking Status		
Smoker	9.78	7.39-12.83
Nonsmoker	8.37	7.29-9.59
Flu Vaccine Status		
Had flu shot/ spray mist in past 12 months	41.63	35.63-47.90
Did not have a flu shot/ spray mist in past 12 months	58.37	52.10-64.37

Table 3. Asthma Prevalence among adults by Public Health Districts from 2014 to 2016

DISTRICT NAME	COUNTY	PREVALENCE
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	9.5%
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	10.8%
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	8.6%
3-1 Cobb/Douglas	Cobb, Douglas	7.2%
3-2 Fulton	Fulton	8.2%
3-3 Clayton County (Jonesboro)	Clayton	7.2%
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	6.7%
3-5 DeKalb	DeKalb	9.2%
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	8.8%
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	10.6%
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	11.4%
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	9.0%
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	8.7%
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	9.3%
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	7.5%
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	7.7%
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	10.8%
10-0 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	9.1%