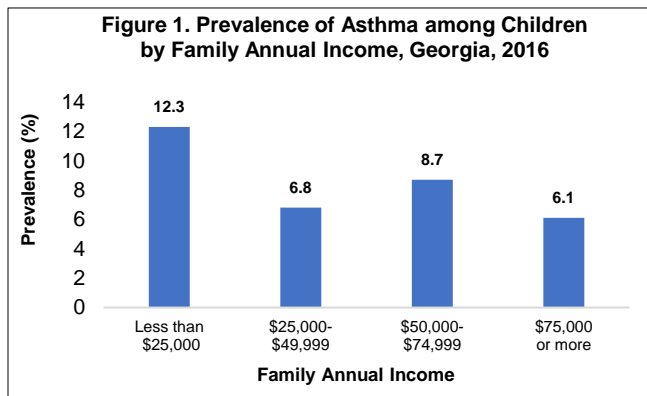


Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening¹.

ASTHMA PREVALENCE^a:

In 2016, the overall asthma prevalence among children in Georgia aged 0-17 years was 8.8%. Overall, 14.5% of children in Georgia had been told at some point in their lives that they had asthma. Differences in asthma prevalence existed by demographic characteristics.

- Boys had a higher prevalence (10.9%) of asthma than girls (7.1%), but the difference is not significant.
- Non-Hispanic Blacks had a significantly higher prevalence (13.6%) of asthma compared to non-Hispanic Whites (6.3%).
- Children of non-Hispanic origin had a slightly higher prevalence (9.2%) of asthma compared to those of Hispanic origin (6.8%), although it was not statistically significant.
- Asthma prevalence was significantly higher among children whose family annual household income was less than \$25,000 than among children from families whose family income is more than \$75,000 (12.3% vs 6.1%). (Figure 1)

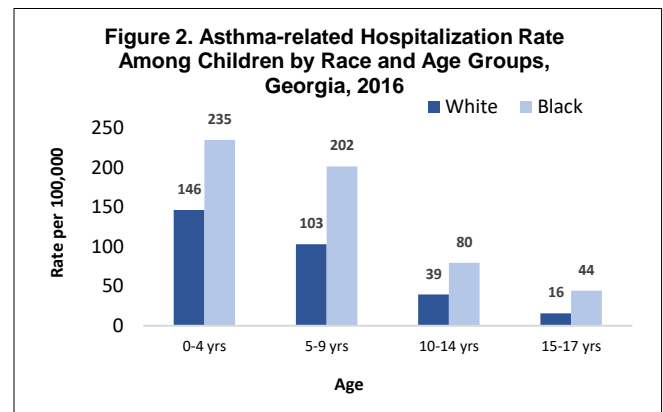


ASTHMA HOSPITALIZATIONS:

In 2016, there were 2,618 asthma-related hospitalizations among children 0-17 years of age in Georgia.

- Overall asthma-related hospitalization rate was 105 per 100,000 population.
- The total charges for asthma-related hospitalizations among Georgia children in 2016 amounted to \$32.1 million.
- The asthma-related hospitalization rate among children decreased as age increased (Figure 2). Children aged 0-4 years had the highest hospitalization rate (175 per 100,000).

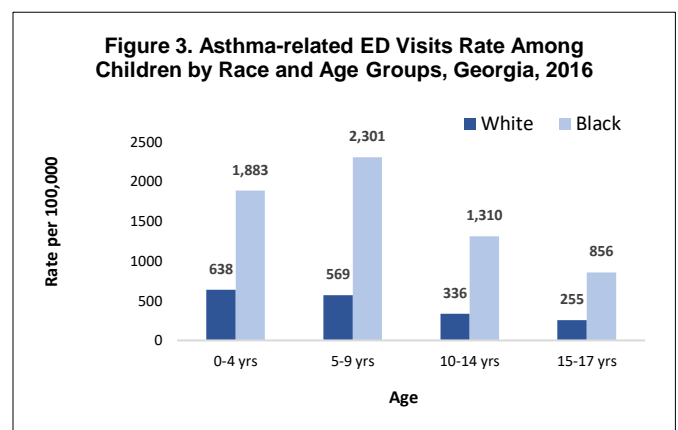
- Asthma-related hospitalization rate was higher among boys (130/100,000) than girls (79/100,000).
- The overall asthma hospitalization rate was higher for black children (149/100,000) than white children (81/100,000). This trend was consistent across age groups (Figure 2).



ASTHMA EMERGENCY DEPARTMENT (ED) VISITS^c:

In 2016, there were 23,301 asthma-related ED visits among children 0-17 years of age in Georgia.

- The overall asthma-related ED visit rate was 931 per 100,000 population.
- The total charges for asthma-related ED visits among children amounted to more than \$45.8 million.
- Children 5-9 years of age had the highest asthma-related ED visit rate of 1,238 per 100,000, however, dropped to 496 per 100,000 in children 15 to 17 years of age (Figure 3).

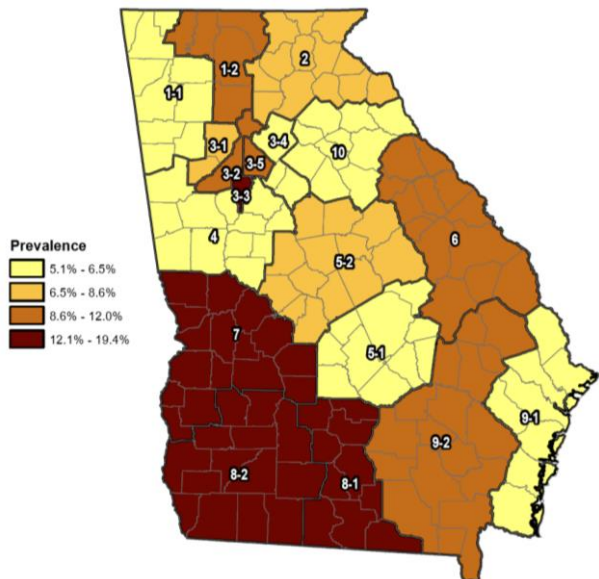


- The asthma-related ED visits rate was higher among males (1131/100,000) than among females (723/100,000).
- The overall asthma-related ED visits rate was over three times higher for black children (1661/100,000) than for white children (465/100,000). This trend was consistent across all age-groups (**Figure 3**).

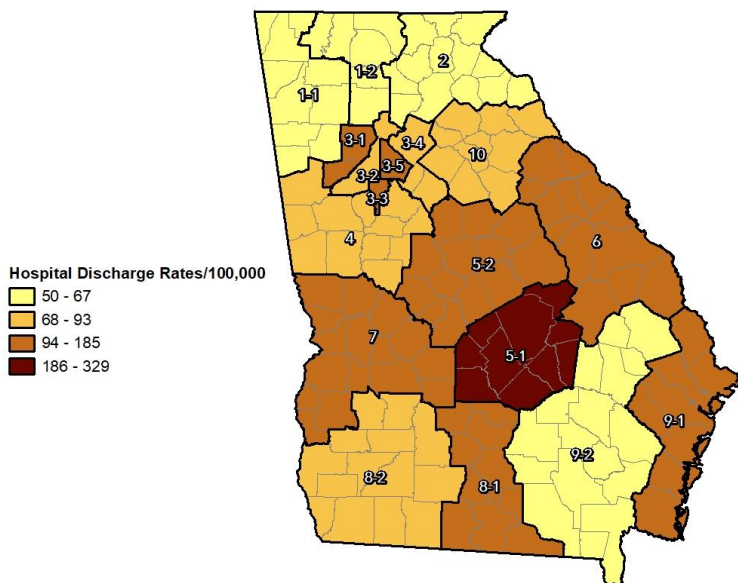
REGIONAL DIFFERENCES IN ASTHMA PREVALENCE, HOSPITALIZATION RATES, AND ED VISITS RATES:
 In Georgia, child asthma prevalence, hospitalization rates and ED visit rates differed by Public Health Districts (PHD).

- From 2014-2016, three PHDs had the highest prevalence of children asthma. These were West Central (7), Southwest (8-2), South (8-1), and Clayton (3-3) with rates of 19.7%, 14.0%, 13.9%, and 10.4% respectively. (**Map 1**)
- In 2016, South Central PHD had the highest asthma hospitalization rate among children 0-17 with a rate of 329 per 100,000. (**Map 2**)
- In 2016, three PHDs with the highest asthma-related ED visits rates were Dekalb (3-5), East Central (6.0), and Cobb/Douglas (3.1), with rates of 1488, 1447, and 1236 per 100,000, respectively. (**Map 3**)

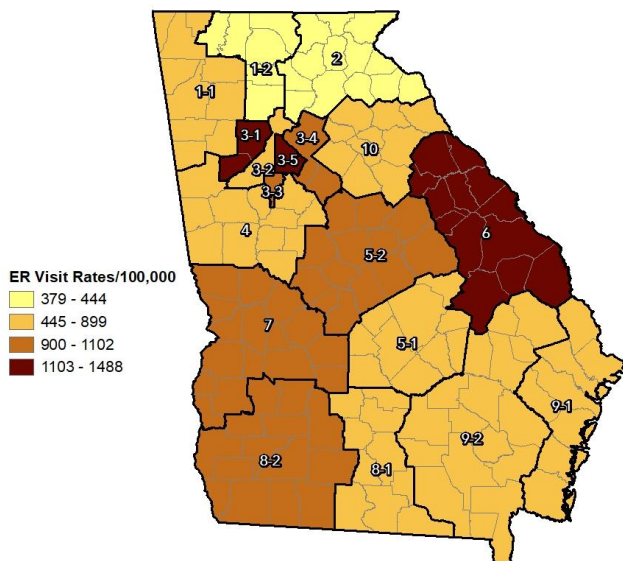
Map 1. Asthma Prevalence, Children 0-17 Years, by PHD, Georgia, 2014-2016



Map 2. Asthma Hospitalization, Children 0-17 Years, by PHD, Georgia, 2016



Map 3. Asthma ED Visits, Children 0-17 Years, by PHD, Georgia, 2016



Data Sources

a. 2014-2016 Georgia Behavioral Risk Factor Surveillance System (BRFSS)

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 codes: 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 based on 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 emergency room visits changed from ICD-9 CM to ICD-10 CM. The ICD- 10 codes: J45 was used to select ED visits, based on the Centers for Disease Control and Prevention (CDC) definition.

Additional Definitions:

Statistical Significance: In this report, estimates were considered statistically significantly different if the chi-square 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. Asthma Prevalence among children by Public Health Districts from 2014 to 2016

DISTRICT	COUNTY	PREVALENCE
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	8.3%
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	11.7%
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	7.7%
3-1 Cobb/Douglas	Cobb, Douglas	10.0%
3-2 Fulton	Fulton	8.9%
3-3 Clayton County (Jonesboro)	Clayton	10.4%
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	6.7%
3-5 DeKalb	DeKalb	11.6%
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	6.9%
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	6.1%
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	6.7%
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	9.2%
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	19.7%
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	13.9%
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	14.0%
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	9.1%
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	10.3%
10-0 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	9.5%

Table 2. Asthma Hospitalizations among children by Public Health Districts in 2016

District	County	Hospitalizations
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	58.6
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	49.7
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	51.2
3-1 Cobb/Douglas	Cobb, Douglas	114.8
3-2 Fulton	Fulton	87.0
3-3 Clayton County (Jonesboro)	Clayton	118.5
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	93.3
3-5 DeKalb	DeKalb	185.0
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	73.8
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	329.1
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	152.7
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	143.9
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	135.7
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	117.8
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	92.9
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	143.3
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	67.1
10-0 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	75.6

Table 3. Asthma ED Visits among children by Public Health Districts in 2016

District	County	ED Visits
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	789.7
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	378.5
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	444.0
3-1 Cobb/Douglas	Cobb, Douglas	1,235.9
3-2 Fulton	Fulton	752.7
3-3 Clayton County (Jonesboro)	Clayton	1,010.4
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	957.5
3-5 DeKalb	DeKalb	1,487.9
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	799.2
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	841.9
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	1,102.0
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	1,447.5
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	1,061.8
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks, Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	642.0
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	973.9
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	860.0
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	893.5
10-0 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	899.3