2020 GEORGIA DATA SUMMARY | ASTHMA IN CHILDREN

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airways narrowing and obstruction. These episodes can range in severity from mild to life threatening[1].

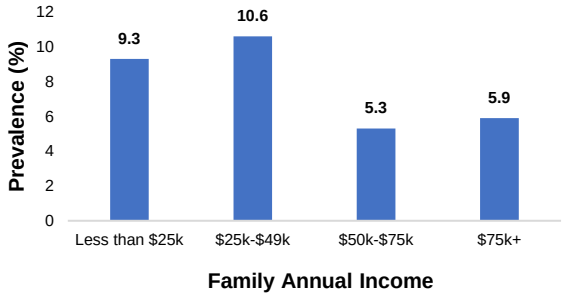
ASTHMA PREVALENCE[a]:

In 2018, the overall asthma prevalence among children in Georgia aged 0-17 years was 7.6%. Overall, 12.3% 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 (9.8%) of asthma than girls (5.3%)
- Children of non-Hispanic origin had a higher prevalence (8.3%) of asthma compared to those of Hispanic origin (3.3%)
- Non-Hispanic Blacks had a higher prevalence (10.4%) of asthma compared to Hispanics (3.3%)

Asthma prevalence was significantly higher among children whose family annual household income was $49,999 and less than among children from families whose family income is more than $50,000 (**Figure 1**).

Figure 1. Prevalence of Asthma Among Children 0-17 years by Family Annual Income, Georgia, 2018

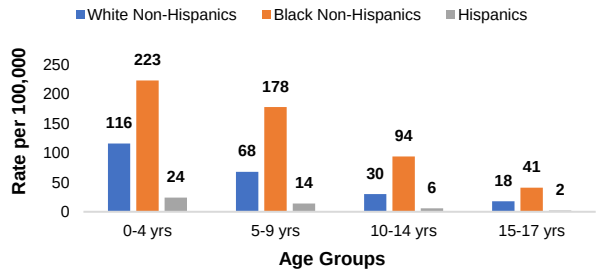


ASTHMA HOSPITALIZATIONS:

In 2018, there were 2,309 asthma-related hospitalizations among children 0-17 years of age in Georgia.

- These hospitalizations represented an overall asthma-related hospitalization crude rate of 92 per 100,000 per year
- The annual asthma hospitalization rate was higher among boys (109/100,000) than girls (74/100,000)
- The total charges for asthma-related hospitalizations among Georgia children amounted to $41.6 million
- The asthma-related hospitalization rate among children decreased as age increased. Children aged 0-4 years had the highest hospitalization rate (156 per 100,000 population)
- Within each age group, asthma age-specific hospitalization rate was highest among Non-Hispanic Blacks (**Figure 2**)

Figure 2. Age-Specific Asthma Hospitalization Rate Among Children 0-17 years by Race/Ethnicity, Georgia, 2018

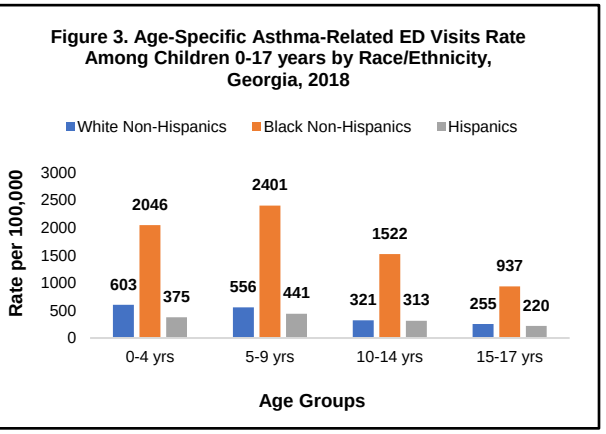


ASTHMA EMERGENCY DEPARTMENT (ED) VISITS[c]:

In 2018, there were 24,624 asthma-related ED visits among children 0-17 years of age in Georgia.

- This represents an overall annual asthma-related ED visits rates of 983 per 100,000
- The total charges for asthma-related ED visits among children amounted to more than $67.5 million

Figure 3. Age-Specific Asthma-Related ED Visits Rate Among Children 0-17 years by Race/Ethnicity, Georgia, 2018



- The ED visits rate was higher among boys (1,167/100,000) than among girls (797/100,000).
- Non-Hispanic Black children 5-9 years of age had the highest asthma ED visits rate of 2,401 per 100,000; while Hispanic children 15-17 years of age had the lowest age-specific rate 220 per 100,000 **(Figure 3)**
- Non-Hispanic Black children (1,800/100,000) were three times more likely to report ED visits than Non-Hispanic white children (445/100,000) and four times more likely to report ED visits than Hispanics (353/100,000)

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

Prevalence: In 2016-2018, the four PHDs with the highest prevalence of children asthma were West Central (7), Fulton (3-2), East Central (6) and Clayton County (3-3), with rates of 13.9%, 12.3%, 11.8% and 11.2% respectively. **(Map 1, Table 1)**

Map 1. Asthma Prevalence, Children 0-17 Years of Age, by PHD, Georgia, 2016-2018

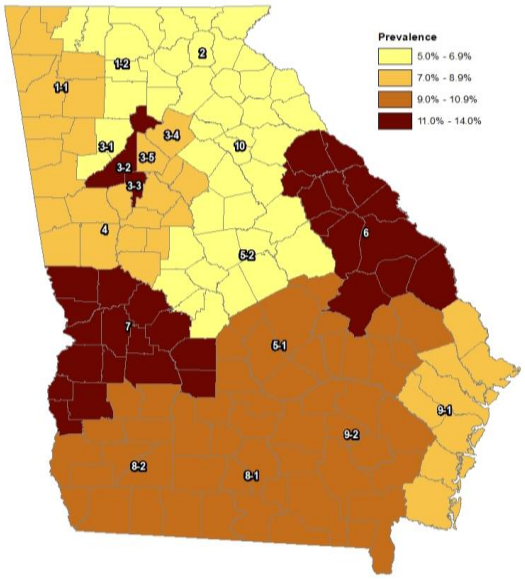


Table 1. Asthma Prevalence among children by Public Health Districts from 2016 to 2018

District Name	County	Prevalence
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	7.2%
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	6.4%
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	5.7%
3-1 Cobb/Douglas	Cobb, Douglas	6.4%
3-2 Fulton	Fulton	12.3%
3-3 Clayton County (Jonesboro)	Clayton	11.2%
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	7.7%
3-5 DeKalb	DeKalb	8.2%
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	7.8%
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	10.8%
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	6.8%
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	11.8%
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	13.9%
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks. Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	10.5%
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	10.4%
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	7%
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	10.6%
10 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	6%

Hospitalizations: In 2016-2018, four PHDs with the highest age-adjusted asthma hospitalization rates were South Central (5-1), Dekalb (3-5), Fulton (5-2) and Clayton County (3-3) with rates of 283, 182, 165 and 149 per 100,000 respectively. **(Map 2, Table 2)**

Map 2. Age-Adjusted Asthma Hospitalization Among Children 0-17 Years of Age, by PHD, Georgia, 2016-2018

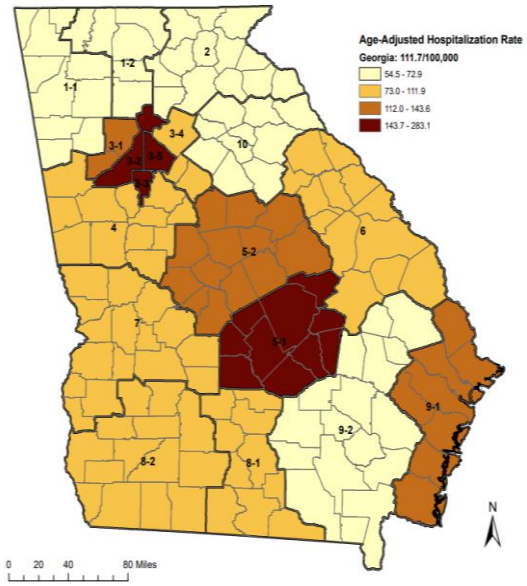


Table 2. Age-Adjusted Asthma Hospitalization Rate among children 0-17 years by Public Health Districts, Georgia

District Name	County	Hospitalization Rate (per 100,000) 2016-2018	2018 Annual Numbers
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	65	87
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	62	50
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	60	80
3-1 Cobb/Douglas	Cobb, Douglas	144	283
3-2 Fulton	Fulton	165	388
3-3 Clayton County (Jonesboro)	Clayton	149	112
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	93	210
3-5 DeKalb	DeKalb	182	259
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	87	131
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	283	70
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	129	122
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	111	68
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	108	86
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks. Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	112	53
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	91	58
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	118	147
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	55	42
10 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	72	63

ED Visits: In 2016-2018, four PHDs with the highest age-adjusted asthma ED visits rates were Dekalb (3-5), East Central (6), Cobb/Douglas (3-1) and Fulton (3-2) with rates of 1433, 1229, 1213, and 1210 per 100,000 respectively. **(Map 3, Table 3)**

Map 3. Age-Adjusted Asthma ED Visits Among Children 0-17 Years of Age, by PHD, Georgia, 2016-2018

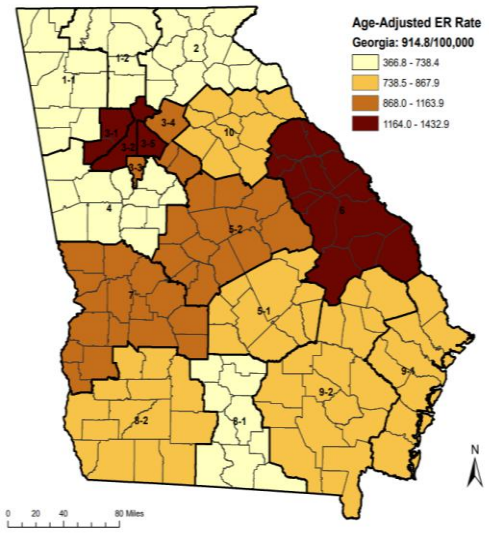


Table 3. Age-Adjusted Asthma ED visits rate among children 0-17 years by Public Health Districts, Georgia

District Name	County	ED Visits Rate (per 100,000) 2016-2018	2018 Annual Numbers
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	738	1,245
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	367	420
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	409	678
3-1 Cobb/Douglas	Cobb, Douglas	1,213	2,716
3-2 Fulton	Fulton	1,210	3,582
3-3 Clayton County (Jonesboro)	Clayton	1,163	1,111
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	893	2,666
3-5 DeKalb	DeKalb	1,433	2,656
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	695	1,508
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	808	288
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	1,028	1,258
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	1,229	1,475
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	953	1,002
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks. Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	620	439
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	867	791
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	763	1,272
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	830	767
10 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	781	750

Data Sources

a. 2016-2018 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. 2016-2018 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- 10 code: J45 was used to select hospitalizations, based on the Division of Environmental Health Science and Practice, Centers for Disease Control and Prevention (CDC) definition.

c. 2016-2018 Georgia Emergency Department Visits Data
Emergency department (ED) visits data are based on Georgia residents who were seen in the emergency department of non-federal acute care hospitals in Georgia with asthma as the primary diagnosis. The ICD- 10 code: J45 was used to select ED visits, based on the Division of Environmental Health Science and Practice, Centers for Disease Control and Prevention (CDC) definition.

Statistical Significance: Significance was determined when confidence intervals around prevalence were not overlapping

References

1. Health Resources and Services Administration. Women's Health USA 2011. Rockville, Maryland: U.S. Department of Health and Human Services, 2011. Accessed on 8/20/2020. Available at https://mchb.hrsa.gov/whusa11/more/downloads/pdf/w11.pdf