2020 GEORGIA DATA SUMMARY | ASTHMA IN ADULTS

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 adult Georgians (age 18 years and older) was 8.9% **(Figure 1)**. Differences in asthma prevalence existed by demographic characteristics.

- Asthma prevalence was higher among females (11.6%) than males (6.1%) **(Figure 1)**
- The difference of asthma prevalence between age-groups was not significant, although it was highest among those 55-64 years of age (10.7%) **(Figure 2)**
- Asthma prevalence was more than 50% higher among White Non-Hispanic females than in WhiteNon-Hispanic males **(Figure 3)**
- Asthma prevalence was highest among adults whose annual household income was less than $15,000 (15.3%) **(Figure 4)**
- Prevalence was significantly higher among individuals with less than a high school diploma (13.2%) than among those who have some college (8.5%) and college graduates (7.3%) **(Figure 5)**
- The difference in asthma prevalence between those with or without health insurance coverage was 9.5% vs 7.7%, respectively **(Figure 6)**

Figure 1. Overall Prevalence of Asthma by Gender, Georgia, 2018

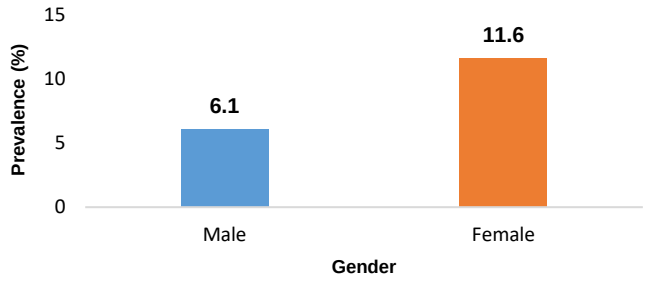


Figure 2. Prevalence of Asthma by Age-Group, Georgia, 2018

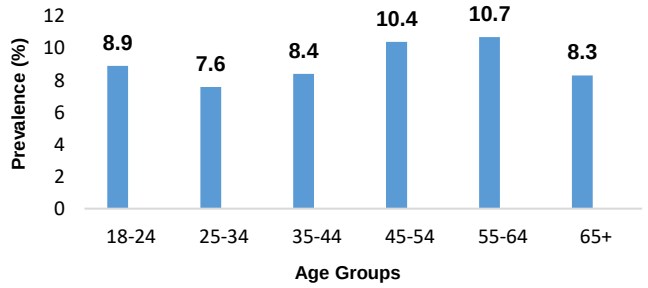


Figure 3. Prevalence of Asthma by Race/Ethnicity and Gender, Georgia, 2018

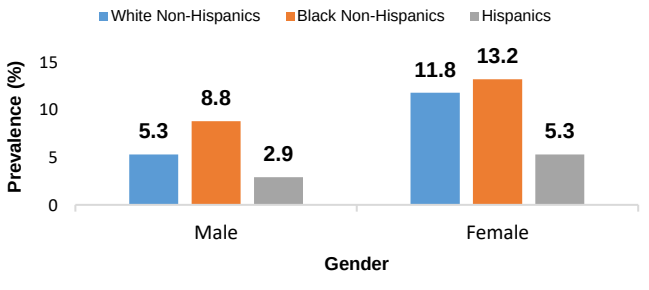
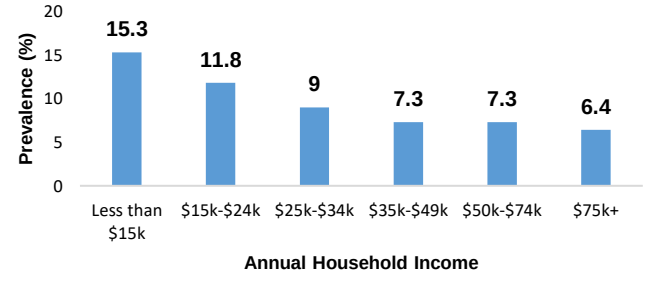
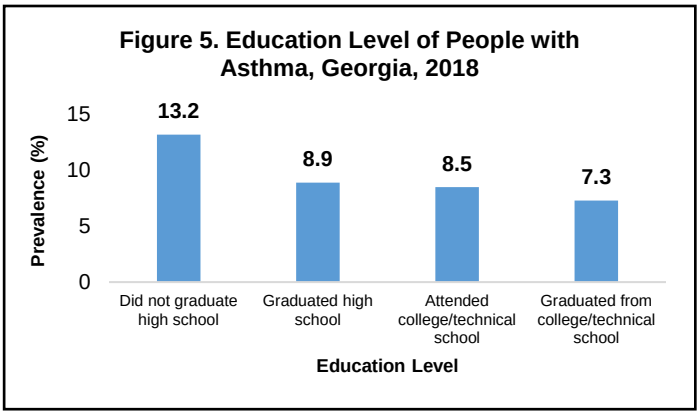
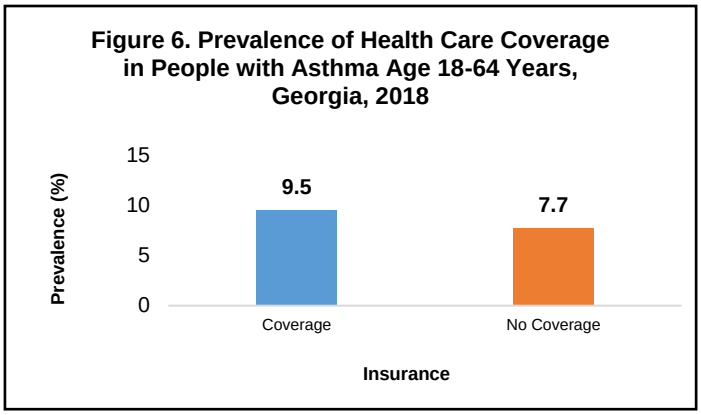


Figure 4. Asthma Prevalence by Annual Household Income, Georgia, 2018







ASTHMA AND OTHER CONDITIONS[a]**:** (see **Table 1**)

- In 2018, the prevalence of obesity (BMI ≥ 30) among Georgia adults with asthma (49.1%) was significantly higher than obesity prevalence among those without asthma (30.7%)
- The prevalence of current smokers among Georgia adults with asthma was 20.5%. Smoking prevalence among adults with asthma was significantly higher than those without asthma (15.6%)
- Georgia adults with asthma reported to be signficantly more likely to do less exercise (37.7%), be more obese (49.1%) and be a smoker (20.5%) than those without asthma
- Those with asthma reported a higher prevalence of receiving a flu vaccine than those without asthma (33.6% and 29.5%, respectively), however this difference is not significant

Table 1. Prevalence of Health Behaviors of People Living with and without Asthma in Georgia, 2018

HEALTH BEHAVIOR	PREVALENCE (Current Asthma)	CONFIDENCE INTERVALS (CI)	PREVALENCE (No current Asthma)	CONFIDENCE INTERVALS (CI)
Health Condition				
Obese	49.1	(44.6, 53.7)	30.7	(29.3, 32.0)
Not obese	50.9	(46.3, 55.4)	69.3	(68.0, 70.7)
Smoking Status				
Smoker	20.5	(17.1, 24.3)	15.6	(14.6, 16.7)
Nonsmoker	79.5	(75.7, 82.9)	84.4	(83.3, 85.4)
Level of Physical Activity				
Exercise/Physical Activity (PA) in last 30 days	62.3	(58.0, 66.5)	74.9	(73.7, 76.1)
No Exercise/Physical Activity (PA) in last 30 days	37.7	(33.5, 42.0)	25.1	(23.9, 26.3)
Flu Vaccine Status				
Had flu shot/ spray mist in past 12 months	33.6	(29.6, 37.8)	29.5	(28.3, 30.7)
Did not have a flu shot/ spray mist in past 12 months	66.4	(62.2, 70.4)	70.5	(69.3, 71.7)

ASTHMA HOSPITALIZATIONS[b]**:** In 2018, there were 3,569 asthma-related hospitalizations among adult Georgians 18 years and older, a rate of 45 per 100,000 population.

- In 2018, the total charges for asthma-related hospitalizations among adults 18 years and older were $98.5 million.
- The overall asthma hospitalization rate was more than two times higher among females (63/100,000) than among males (25/100,000).
- As age increased **(Figure 7)**, the rate of females' asthma hospitalizations rate increased and peaked at 45-54 years of age (82/100,000).
- For each age-group, the asthma hospitalization rate was higher for Black Non-Hispanics when compared to White Non-Hispanics and Hispanics expect for the age-group 65 years and older; where Hispanics had the highest age-specific rate when compared to Black Non-Hispanic and White Non-Hispanic **(Figure 8)**

ASTHMA EMERGENCY DEPARTMENT (ED) VISITS[c]: In 2018, about 29,456 ED visits due to asthma for adults, a rate of 368 per 100,000 population.

- In 2018, the total charges for asthma-related ED visits among adults 18 years and older were $102.4 million.
- The rate of ED visits decreased with increasing age **(Figure 9)**, in contrast to the asthma hospitalization rate **(Figure 7)**, which shows an increasing trend by age
- The age-adjusted ED visits rate among adults was higher among females (461/100,000) than males (298/100,000). **(Figure 9)**
- In 2018, the overall asthma age-adjusted ED visits rate for Black Non-Hispanics (770/100,000) was approximately four times higher than White Non-Hispanics (175/100,000). This is similar to the trend seen in previous years. **(Figure 10)**

Figure 7. Age-Specific Asthma Hospitalizations Rate Among Adults, by Gender, Georgia, 2018

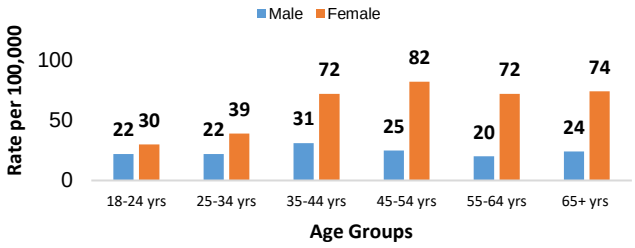


Figure 8. Age-Specific Asthma Hospitalizations Rate Among Adults, by Race/Ethnicity, Georgia, 2018

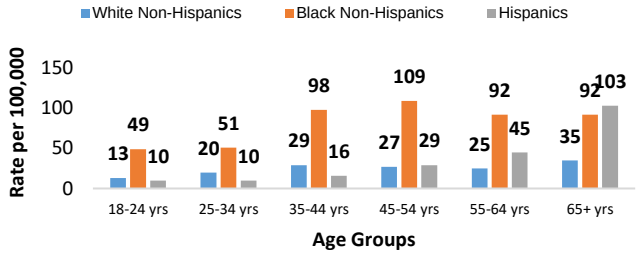


Figure 9. Age-Specific ED-Asthma Related Visits Rate Among Adults, by Gender, Georgia, 2018

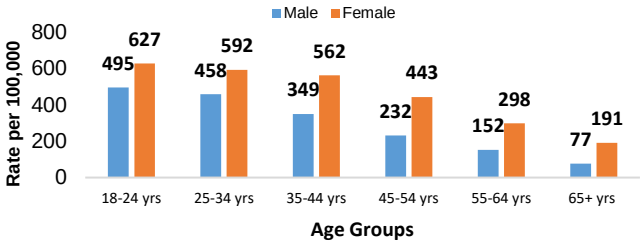
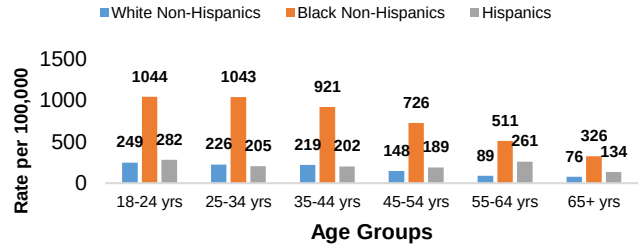


Figure 10. Age-Specific ED Asthma Related Visits Rate Among Adults, by Race/Ethnicity, Georgia, 2018



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

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

- From 2016-2018, the four PHDs with the highest prevalence of adult asthma were Southeast (9-2), Northeast (10), Clayton (3-3) and North Central (5-2) with rates of 11.3%, 10.7%, 10.5%, and 10.5%, respectively **(Map 1, Table 2)**.

Map 1. Asthma Prevalence, Adults 18 Years and Older, by PHD, Georgia, 2016-2018

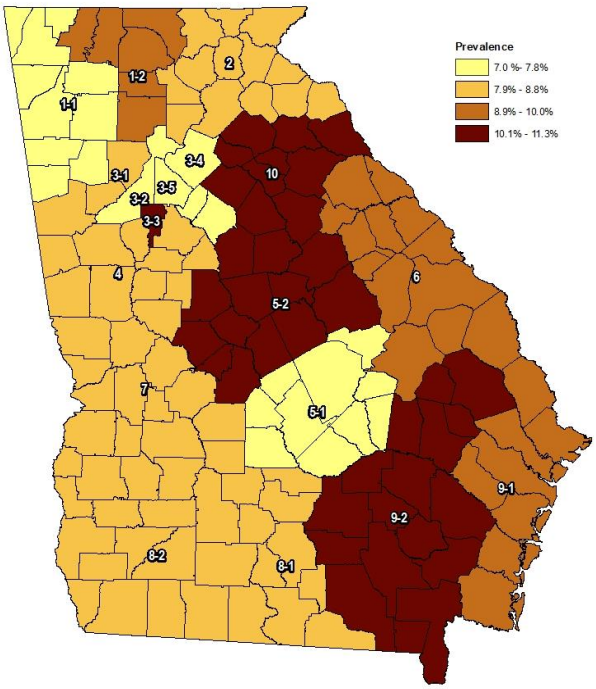


Table 2. Asthma Prevalence among adults by Public Health Districts from 2016 to 2018

DISTRICT NAME	COUNTY	PREVALENCE
1-1 Northwest (Rome)	Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Haralson, Paulding, Polk, Walker	7.1%
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	9.6%
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	8.8%
3-1 Cobb/Douglas	Cobb, Douglas	8.3%
3-2 Fulton	Fulton	7.8%
3-3 Clayton County (Jonesboro)	Clayton	10.5%
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	7%
3-5 DeKalb	DeKalb	7.6%
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	7.1%
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	10.5%
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	8.6%
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks. Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	8.2%
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	8.1%
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	9.5%
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	11.3%
10 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	10.7%

- In 2018, the four PHDs with the highest asthma hospitalization rates were Dekalb (3-5), Clayton County (3-3), Fulton (3-2) and North Central (5-2) with rates of 64, 57, 54, and 54 per 100,000 respectively **(Map 2, Table 3)**.

Map 2. Age-Adjusted Asthma Hospitalization, Adults 18 Years and Older, by PHD, Georgia, 2016-2018

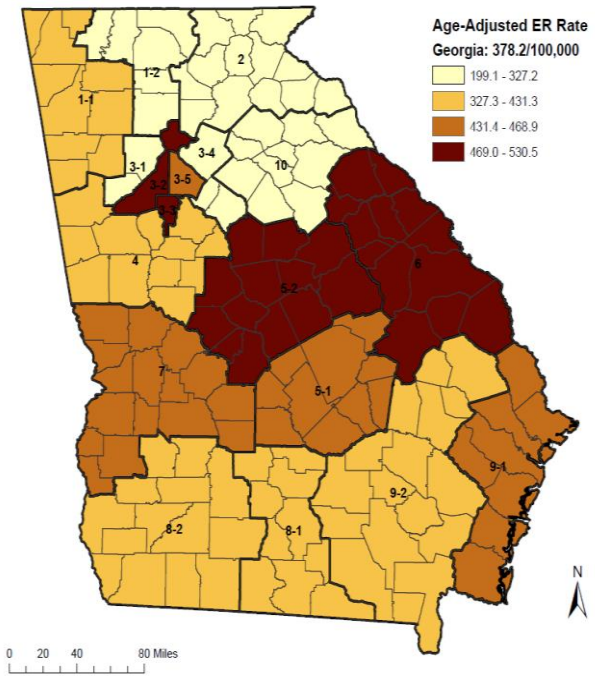


Table 3. Age-Adjusted Asthma Hospitalization among adults by Public Health Districts, Georgia

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	36	204
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	24	87
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	24	131
3-1 Cobb/Douglas	Cobb, Douglas	52	365
3-2 Fulton	Fulton	54	437
3-3 Clayton County (Jonesboro)	Clayton	57	151
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	40	313
3-5 DeKalb	DeKalb	64	381
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	34	270
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	32	36
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	54	205
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	47	147
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	43	128
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks. Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	52	108
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	52	134
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	49	213
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	42	119
10 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	38	140

- In 2018, the four PHDs with the highest asthma ED visits rates were Clayton County (3-3), North Central (5-2), Fulton (3-2) and East Central (6) with rates of 531, 520, 475, and 475 per 100,000 respectively (**Map 3, Table 4**).

Map 3. Age-Adjusted Asthma ED Visits Rate, Adults 18 Years and older, by PHD, Georgia, 2016-2018

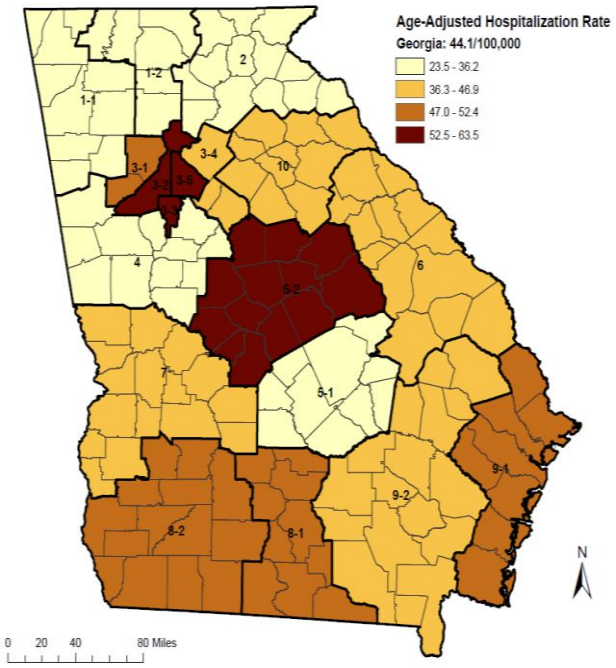


Table 4. Asthma ED visits rate among adults by Public Health Districts, Georgia

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	341	1,596
1-2 North Georgia (Dalton)	Cherokee, Fannin, Gilmer, Murray, Pickens, Whitefield	199	661
2 North (Gainesville)	Banks, Dowson, Forsyth, Franklin, Habersham, Hall, Hart, Lumpkin, Rabun, Stephens, Towns, Union, White	210	1,047
3-1 Cobb/Douglas	Cobb, Douglas	319	2,127
3-2 Fulton	Fulton	475	3,954
3-3 Clayton County (Jonesboro)	Clayton	531	1,143
3-4 East Metro (Lawrenceville)	Gwinnett, Newton, Rockdale	327	2,641
3-5 DeKalb	DeKalb	444	2,577
4 LaGrange	Butts, Carroll, Coweta, Fayette, Henry, Lamar, Meriwether, Pike, Spalding, Troup, Upson	364	2,185
5-1 South Central (Dublin)	Bleckley, Dodge, Johnson, Laurens, Montgomery, Pulaski, Telfair, Treutlen, Wheeler, Wilcox	440	483
5-2 North Central (Macon)	Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, Wilkinson	520	1,959
6 East Central (Augusta)	Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Richmond, Screven, Taliaferro, Warren, Wilkes	475	1,718
7 West Central (Columbus)	Chattahoochee, Clay, Crisp, Dooly, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, Webster	452	1,256
8-1 South (Valdosta)	Ben Hill, Berrien, Brooks. Cook, Echols, Irwin, Lanier, Lowndes, Tift, Turner	366	681
8-2 Southwest (Albany)	Baker, Calhoun, Colquitt, Decatur, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Terrell, Thomas, Worth	431	1,057
9-1 Coastal (Savannah)	Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, McIntosh	468	2,174
9-2 Southeast (Waycross)	Appling, Atkinson, Bacon, Brantley, Bulloch, Candler, Charlton, Clinch, Coffee, Evans, Jeff Davis, Pierce, Tattnall, Toombs, Ware, Wayne	383	1,053
10 Northeast	Barrow, Clarke, Elbert, Greene, Jackson, Madison, Morgan, Oconee, Oglethorpe, Walton	321	1,184

Data Sources

a. 2018 Georgia Behavioral Risk Factor Surveillance System (GA-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 from 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 hospitalizations, based on the Division of Environmental Health Science and Practice, Centers for Disease Control and Prevention (CDC) definition.

Definitions

Well controlled asthma – Had asthma symptoms ≤ 8 days in the past 30 days, or ≤ 2 days of nighttime awakening in past 30 days, or an average of ≤ 0.29 uses of a short acting beta-agonist (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 between 3 and 12 days of nighttime awakening in past 30 days, or an average of 0.29 to 1.99 uses of a SABA per day.

Very poorly controlled asthma – Had asthma symptoms daily in the past 30 days and throughout the day, or ≥ 13 days of nighttime awakening in the past 30 days or ≥ 2 use of a 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).

Obesity: The proportion of adults whose BMI was greater than or equal to 30.0 kg/m2.

Note: Body mass index, BMI, is defined as weight (kg) divided by height (m) squared.

Physical Activity: The proportion of adults who reported participating in any leisure time physical activities or exercises during the past month.

Current Smokers: The proportion of adults who reported that they had smoked at least 100 cigarettes (5 packs) in their life and they currently smoke cigarettes, either every day or on some days.

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