

2014 GEORGIA ASTHMA SURVEILLANCE REPORT

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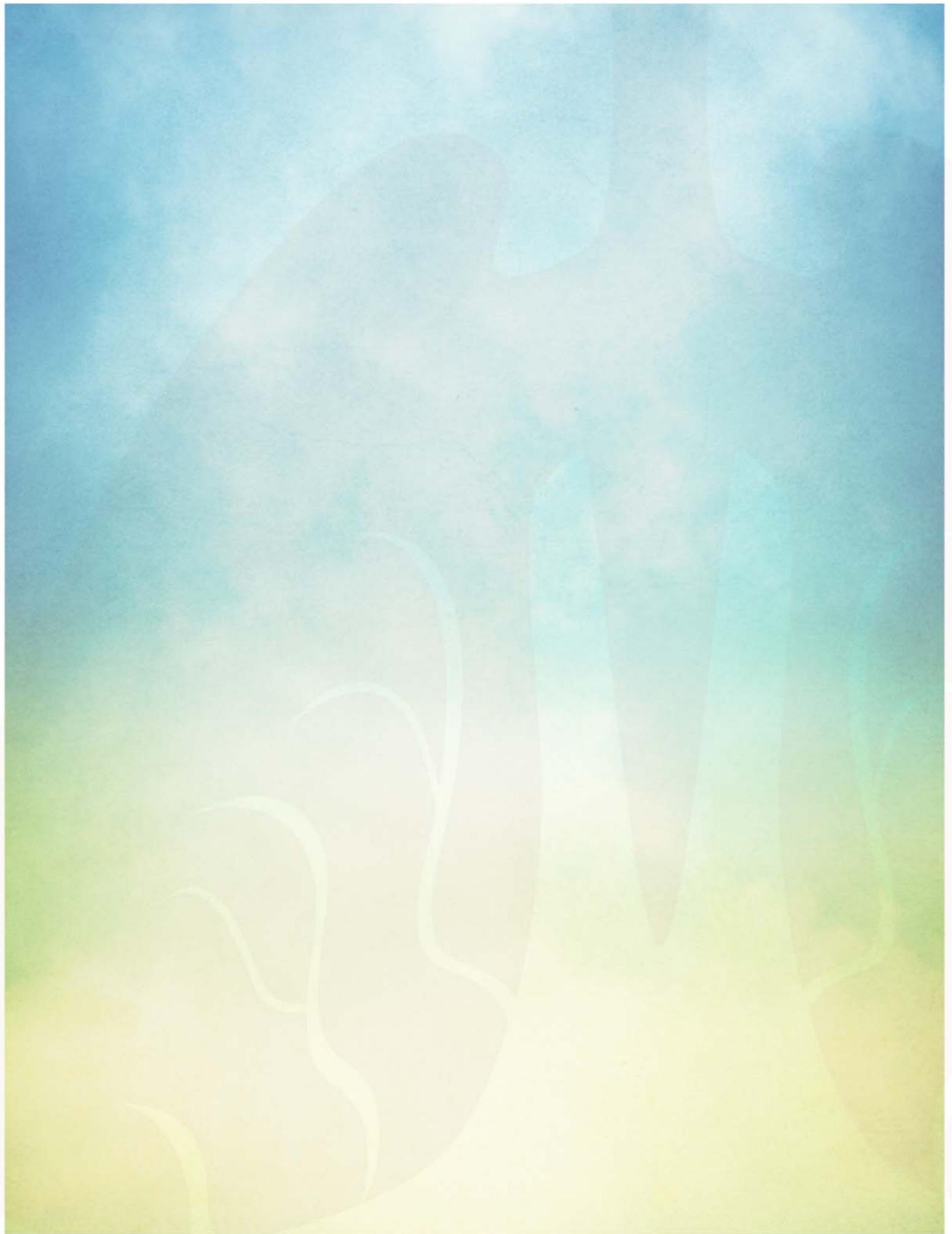


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Key Findings

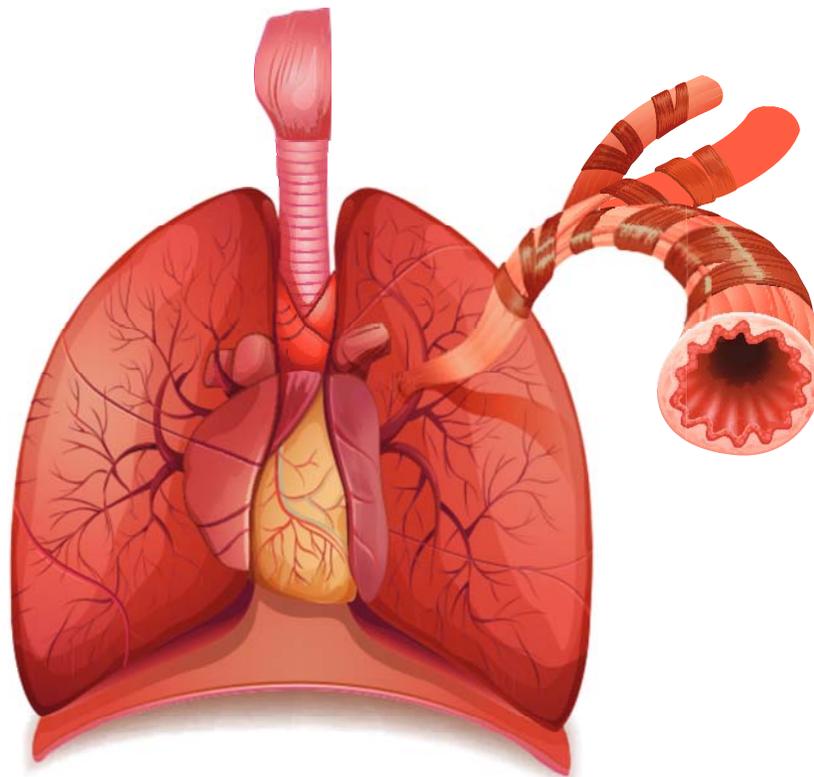
Children

- In Georgia during 2012, the prevalence of lifetime asthma among children 0-17 years was 16% while current asthma prevalence among children in the same age group was 12%.
- The prevalence of lifetime and current asthma was higher among boys (18.0% and 14% respectively) than was in girls (13.5% and 10.3% respectively), which is in contrast to the results from the adult prevalence when comparing women to men.
- Black children (18.4%) were significantly more likely to have current asthma than white children (7.8%).

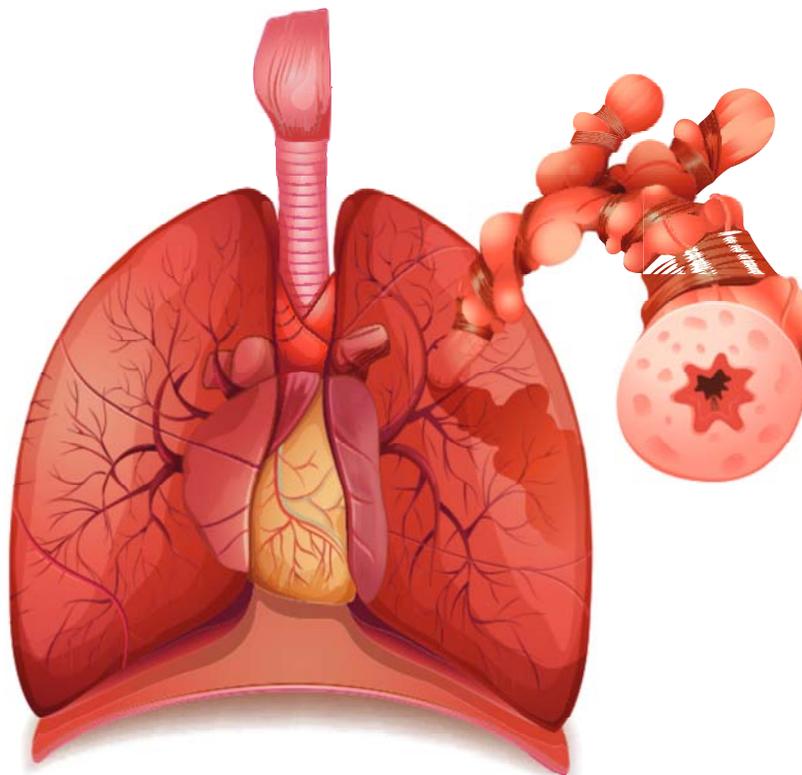
Adults

- In Georgia during 2011-2012, 13.5% of adults had lifetime asthma and 8.9% had current asthma.
- Between 2001 and 2010, the prevalence of both lifetime and current asthma among Georgia adults was consistently lower than the US prevalence, although they were not significantly different.
- During 2011-2012, the prevalence of current asthma among adult Georgians was higher among females and non-Hispanic blacks.
- During 2011-2012 in Georgia, the prevalence of adult asthma was higher among individuals with lower levels of education and those with lower annual household incomes.
- In Georgia during 2011-2012, the prevalence of current asthma among adults was significantly higher among those who:
 - Smoked (11.7%) than those who did not smoke (8.1%).
 - Were obese (11.6%) than those with normal body weight (7.5%).
 - Had frequent mental distress (18.6%) than those without (7.6%).
 - Perceived their health as fair or poor (18.3%) than those who perceived their health as excellent, very good or good (6.7%).
 - Had activity limitation due to physical, mental or emotional health (18.2%) than those who did not (6.2%).
- During 2011-2012, 40% of Georgia adults with asthma received seasonal flu vaccination as opposed to 33% of adults without asthma.

Asthma - Normal vs. Inflamed Bronchial Tube



normal bronchial tube



inflamed bronchial tube

What is asthma?

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction¹. These episodes can range in severity from mild to life threatening¹. The affects of asthma can cause airways that are inflamed or swollen, production of excess mucus and tightening of the muscles that surround the airway. These affects often cause symptoms of recurrent episodes of wheezing, coughing, shortness of breath, and chest pain or tightness.

What causes Asthma?

The exact causes of asthma are not known but research suggests interaction between genetic and some environmental factors are to blame. Some of the factors include²:

- Parents who have asthma
- Inherited tendency to develop allergens
- Certain respiratory infections during childhood
- Contact with some airborne allergens or childhood exposure to some viral infections

What are some common asthma triggers?

Asthma symptoms can be triggered or worsened by many things such as²

- Allergens (dust, animal fur, cockroaches, mold, and pollens from trees, grasses, and flowers)
- Viral upper respiratory infections (cold)
- Irritants (tobacco smoke, air pollution, chemicals or dust in the workplace)
- Exercise

How can you take control of your asthma?

There is no cure for asthma, however, it can be managed by avoiding triggers and taking appropriate medications³

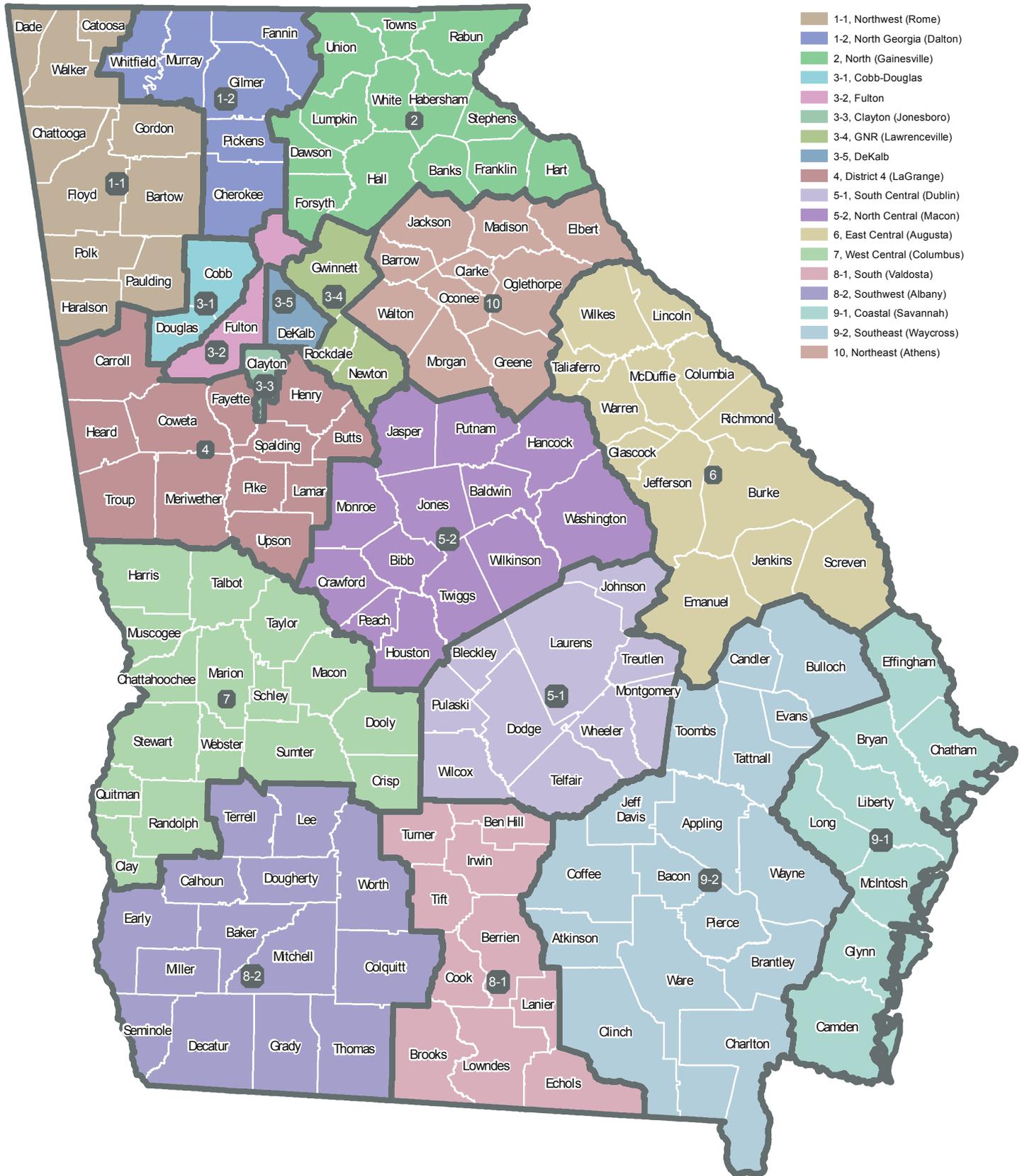
- Work with your doctor to create an asthma management plan
- Monitor your breathing and airways with a peak flow meter, as recommended by your doctor
- Treat symptoms early
- Learn when to seek medical help

Create an asthma action plan

An asthma management plan is a written guide set up by your doctor and you to help manage your asthma, based on your individual needs. Your plan will tell you:

- What brings on your asthma symptoms
- How to avoid triggers and reduce exposure
- What medicines to take and when to take them
- When you need to seek medical help

Georgia Counties and the Public Health Districts

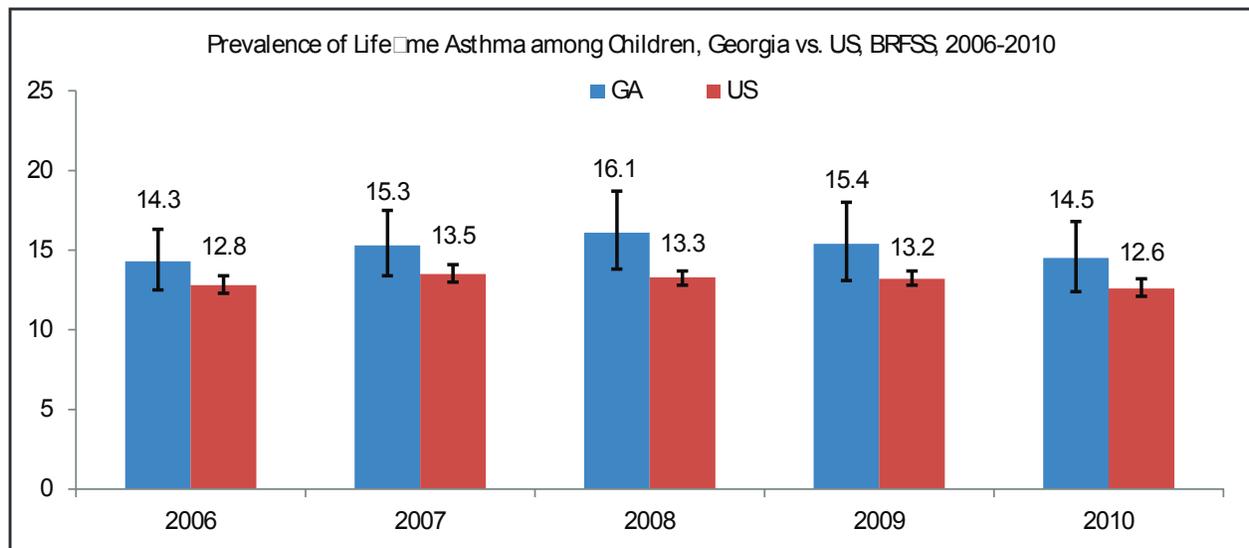
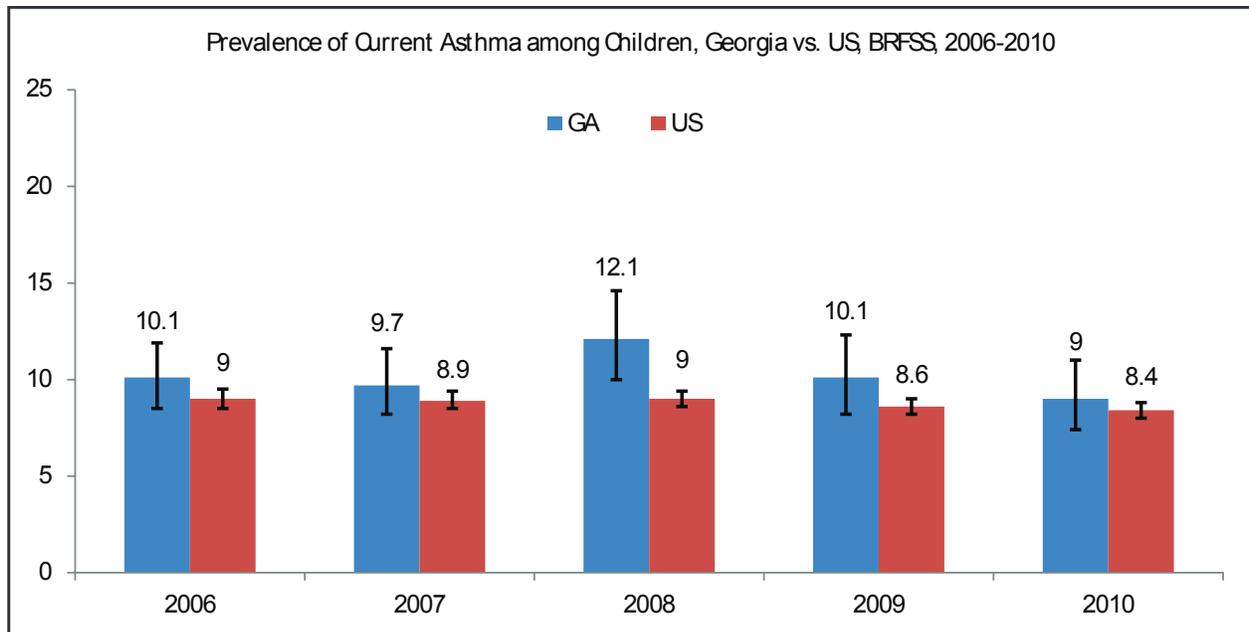


PART A. Asthma Prevalence among Georgia Children 0-17 years

Child Asthma Prevalence from the BRFSS

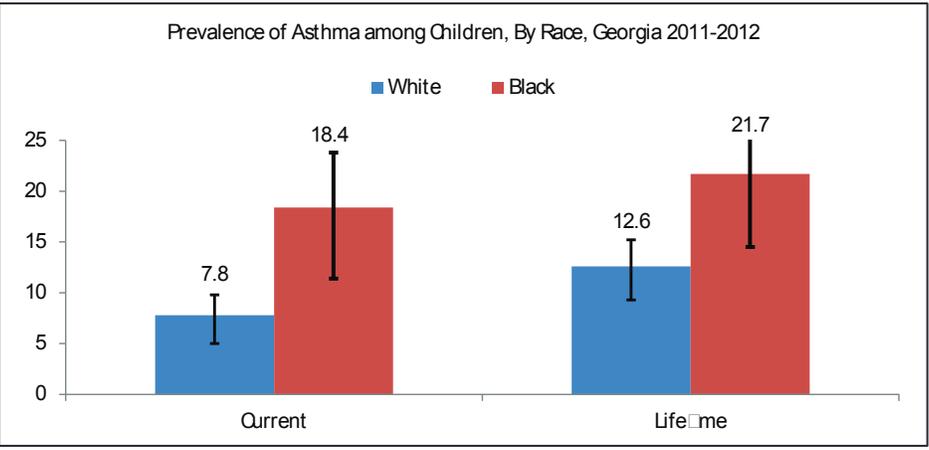
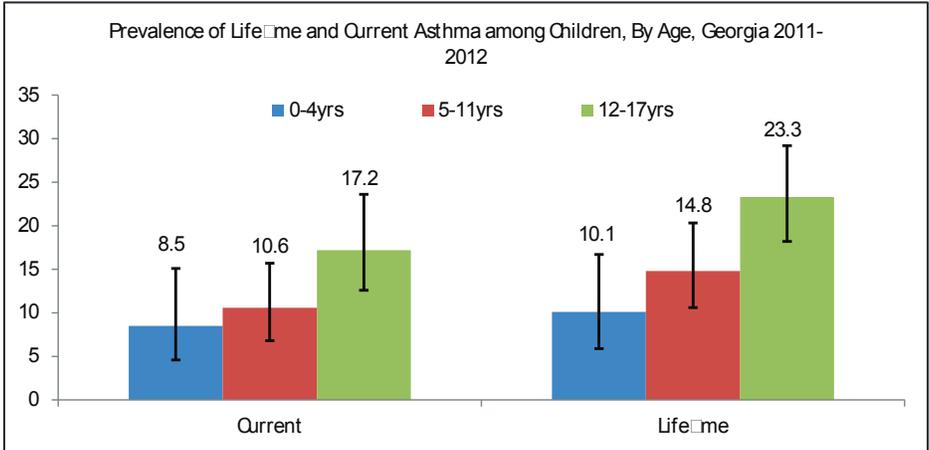
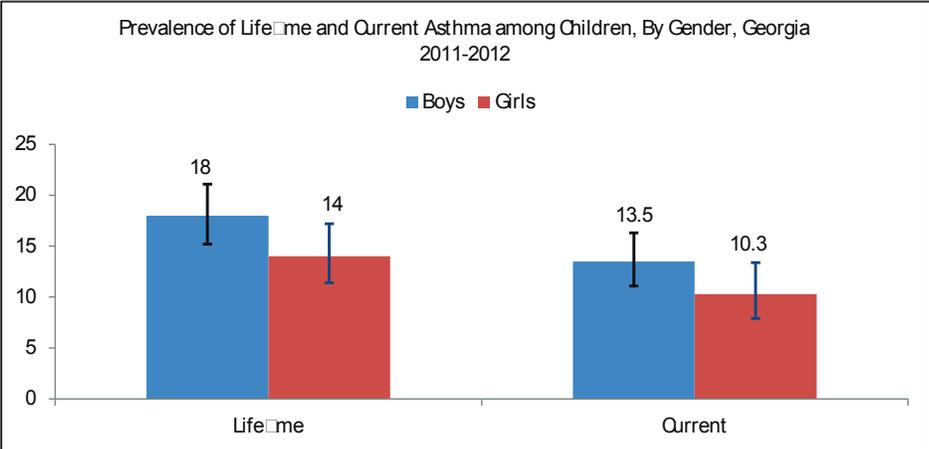
Child Asthma Prevalence – Georgia and U.S. compared (BRFSS, 2006-2010)

- Between 2006 and 2010, the prevalence of both lifetime and current asthma was higher among Georgia children than the U.S.



Prevalence of Asthma among Georgia Children, BRFSS, 2012

- The prevalence of lifetime and current asthma among Georgia children 0-17 years in 2012 were 16.0% and 12.0%, respectively.
- The lifetime and current asthma prevalences were higher among boys (18.0% and 14.0%) than girls (13.5% and 10.3%).
- Children younger than 5 years old had a lower prevalence of lifetime and current asthma than children aged 5-11 years and 12-17 years. For instance, the prevalence of current asthma was two times higher among children aged 12-17years than was among children aged 0-4 years old.
- The prevalence of asthma was more than two times higher among black children than in white children in Georgia.

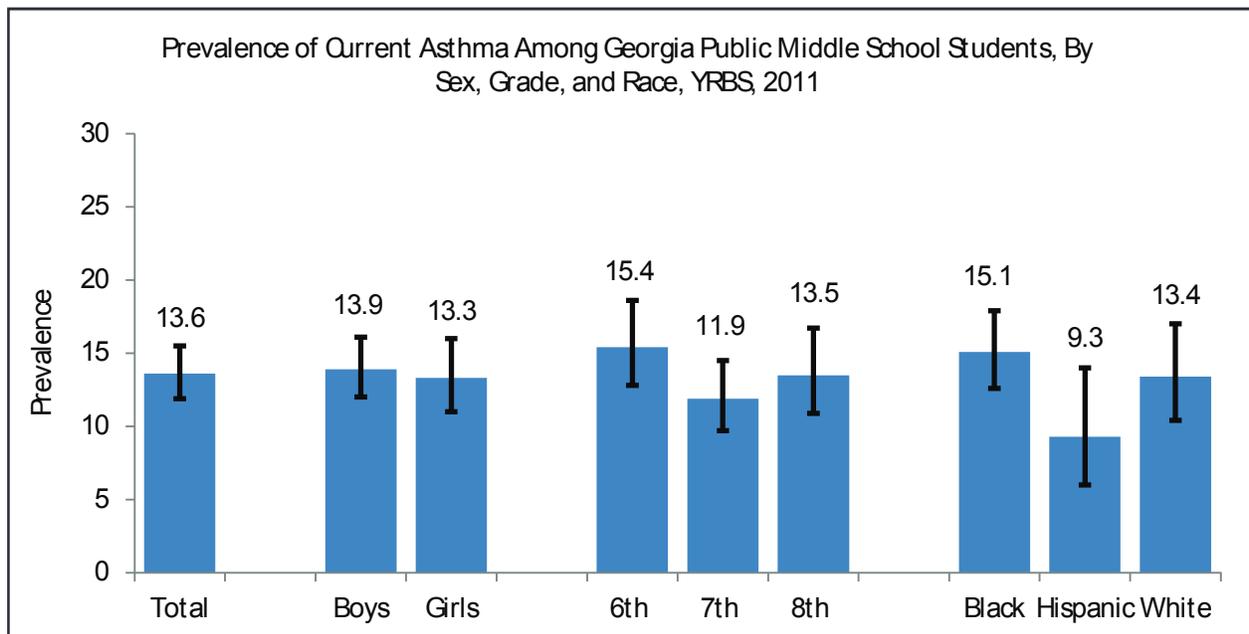


Other Sources of Child Asthma Prevalence Data

Data Source: 2011 Youth Risk Behavioral Survey (YRBS)

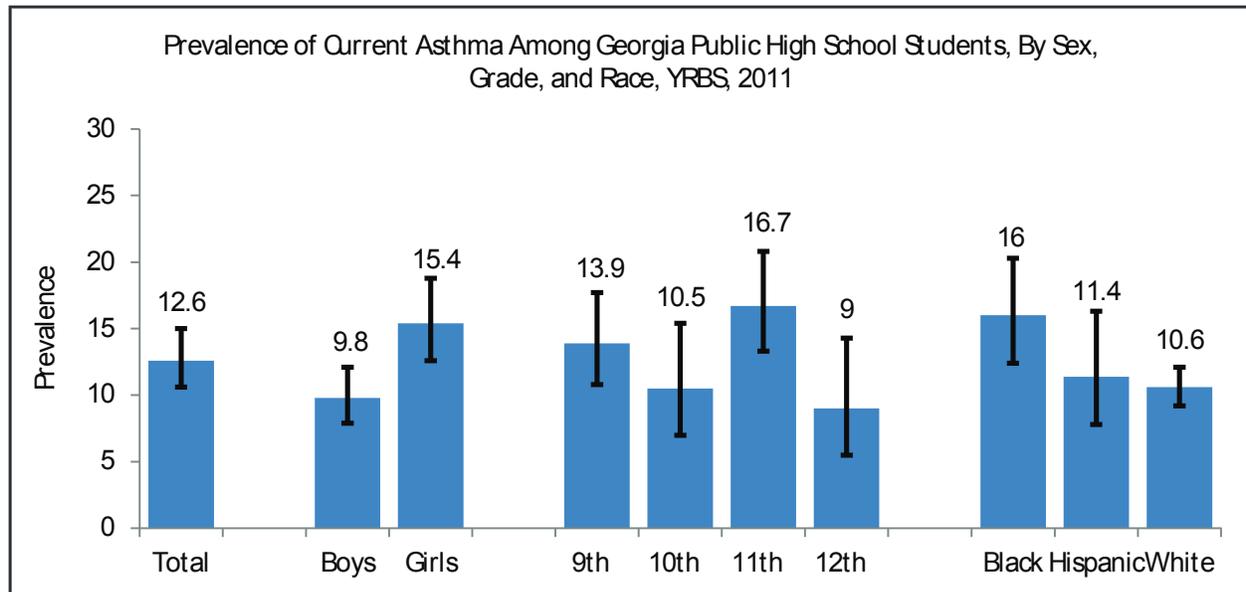
Middle School (HS) Students

- The prevalence of lifetime asthma among public MS students in Georgia during 2011 was about 24%.
- The prevalence of current asthma among public MS students in Georgia during 2011 was about 14%. This was 10% lower than the lifetime prevalence.
- The prevalence of current asthma among MS students was not significantly different for boys (13.9) than for girls (13.3%).
- Current asthma was more common among 6th graders (15.4%) than it was among 7th (11.9%) and 8th graders (13.5%) in Georgia during 2011.
- Among public MS students, current asthma was significantly more common among blacks (15.1%) than was in whites (13.4%) in Georgia during 2011.



High School (HS) Students

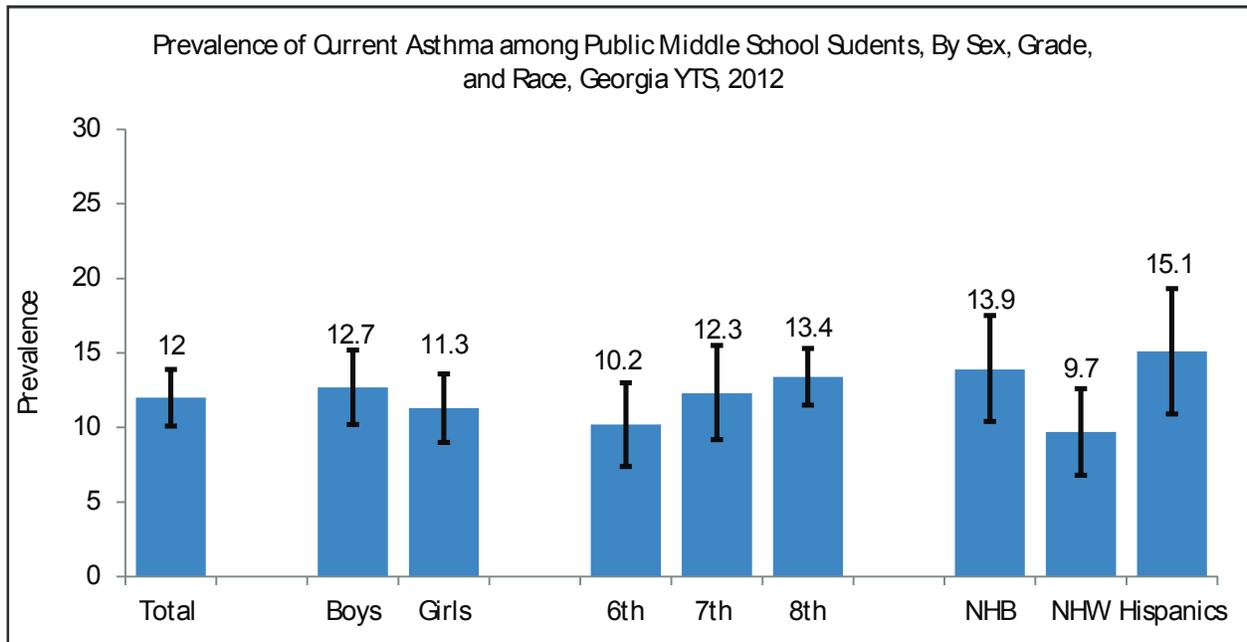
- In Georgia during 2011, the prevalence of lifetime and current asthma among public HS students were approximately 27% and 13%, respectively.
- Current asthma was significantly more common among HS girls (15.4%) than in HS boys (9.8%) in Georgia during 2011.
- Current asthma was most common among 11th graders (16.7%) than it was among 9th graders (13.9%), 10th graders (10.5%), and 12th graders (9.0%).
- The prevalence of current asthma was significantly higher among black HS students (16.0%) than white HS students (10.6%) in Georgia during 2011.



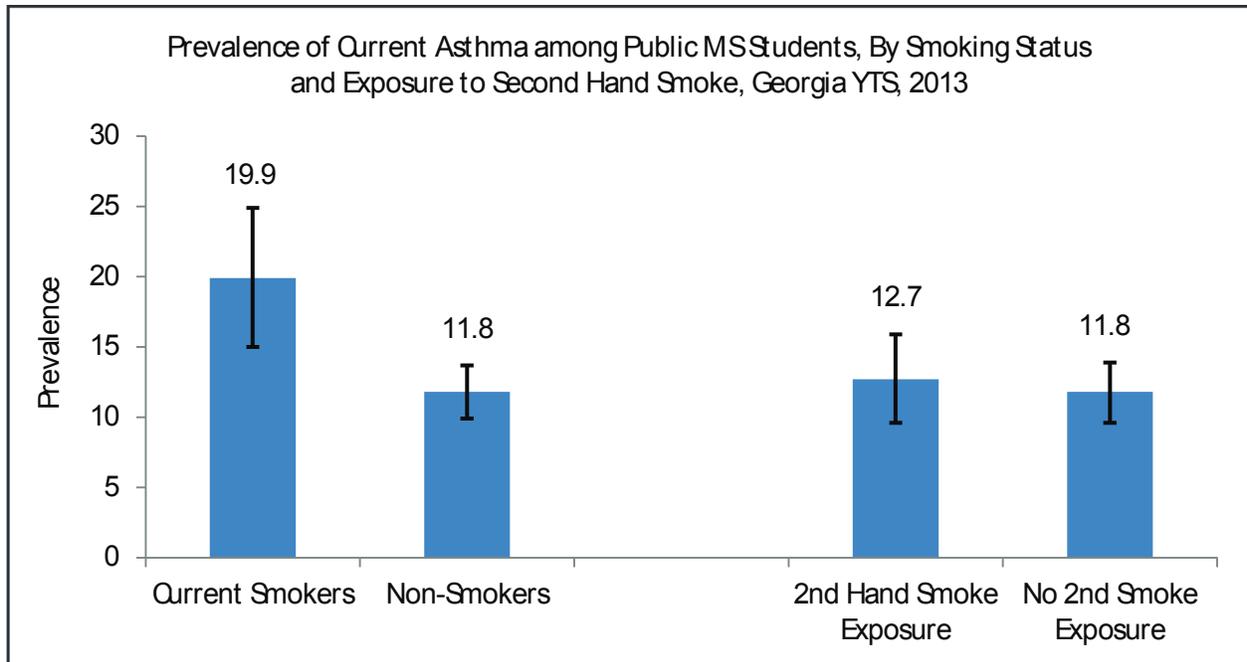
Data Source: 2013 Youth Tobacco Survey (YTS).

Middle School Students

- The lifetime prevalence of asthma among public MS students in Georgia during 2013 was about 26%.
- The prevalence of current asthma among Georgia public MS students was 12.0%.
- The prevalence of current asthma was slightly higher among boys than girls in Georgia public MS during 2013.
- Current asthma was more common among 8th graders than 6th or 7th graders in Georgia public MS during 2013.
- The prevalence of asthma was higher among Hispanic Georgia public MS students than their black non-Hispanic or white non-Hispanic counterparts.
- The prevalence of current asthma was significantly higher among public MS students who were current smokers than non-smokers in Georgia during 2013.
- Prevalence of current asthma was slightly higher among public MS students who were exposed to second hand smoke in their home or in a vehicle than those who were not exposed.



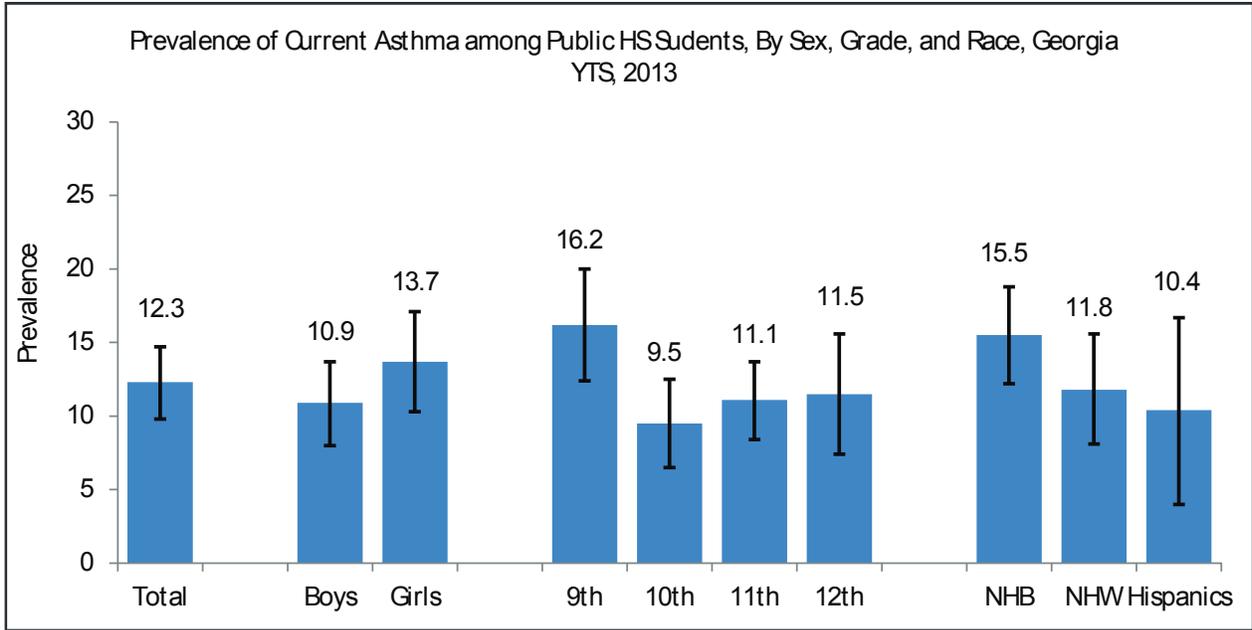
*NHB= Non-Hispanic black, NHW= Non-Hispanic white



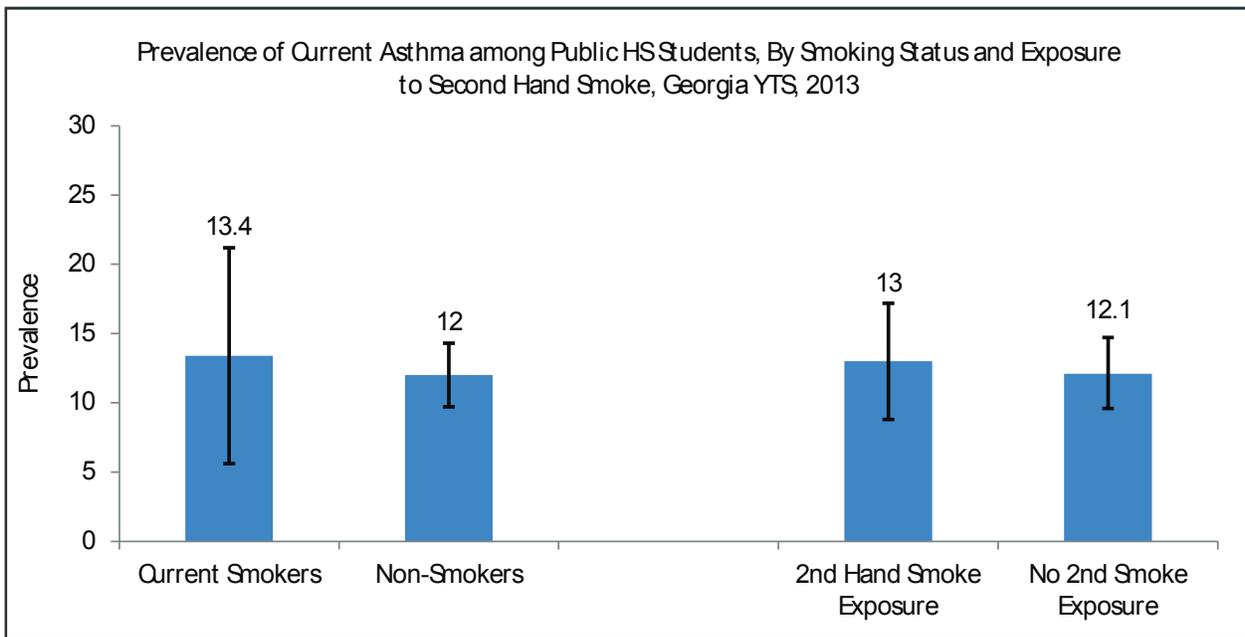
*Second hand smoke exposure in a room or in a vehicle during the previous 7 days

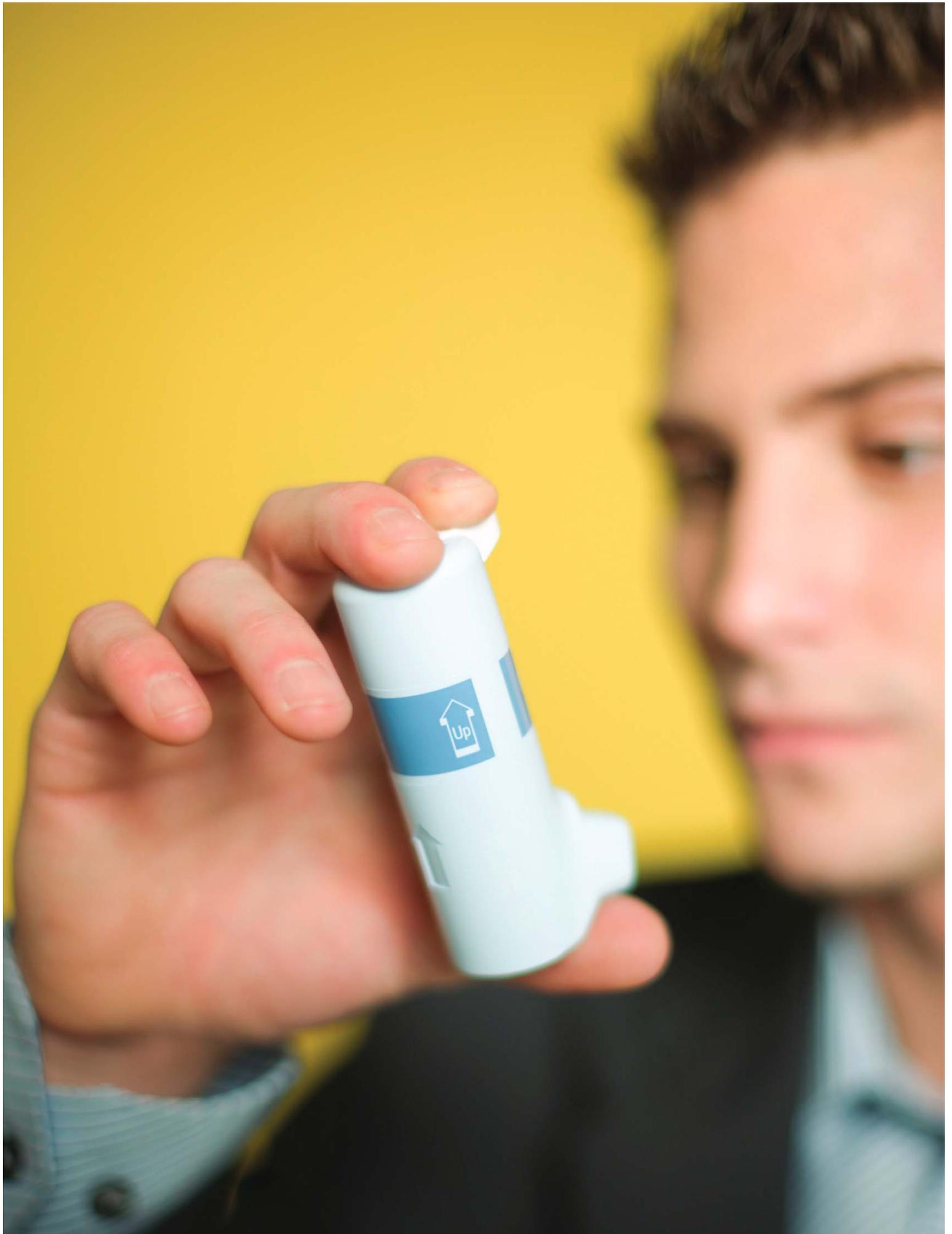
High School Students

- Among public HS students in Georgia during 2013, the prevalence of lifetime asthma was 27.4 while that of current asthma was 12.3%.
- In Georgia during 2013, girls in public HS were more likely than boys to have a current asthma.
- The current asthma prevalence was higher among 9th graders than was among 10th, 11th and 12th graders in public HS in Georgia during 2013.
- The prevalence of current asthma was higher among non-Hispanic blacks in public HS than in non-Hispanic whites or Hispanics.
- The prevalence of current asthma was higher among public HS students who were current smokers than non-smokers in Georgia during 2013.
- Prevalence of current asthma was slightly higher among public MS students who were exposed to second hand smoke in their home or in a vehicle than those who were not exposed.



*NHB=Non-Hispanic black, NHB=Non-Hispanic white

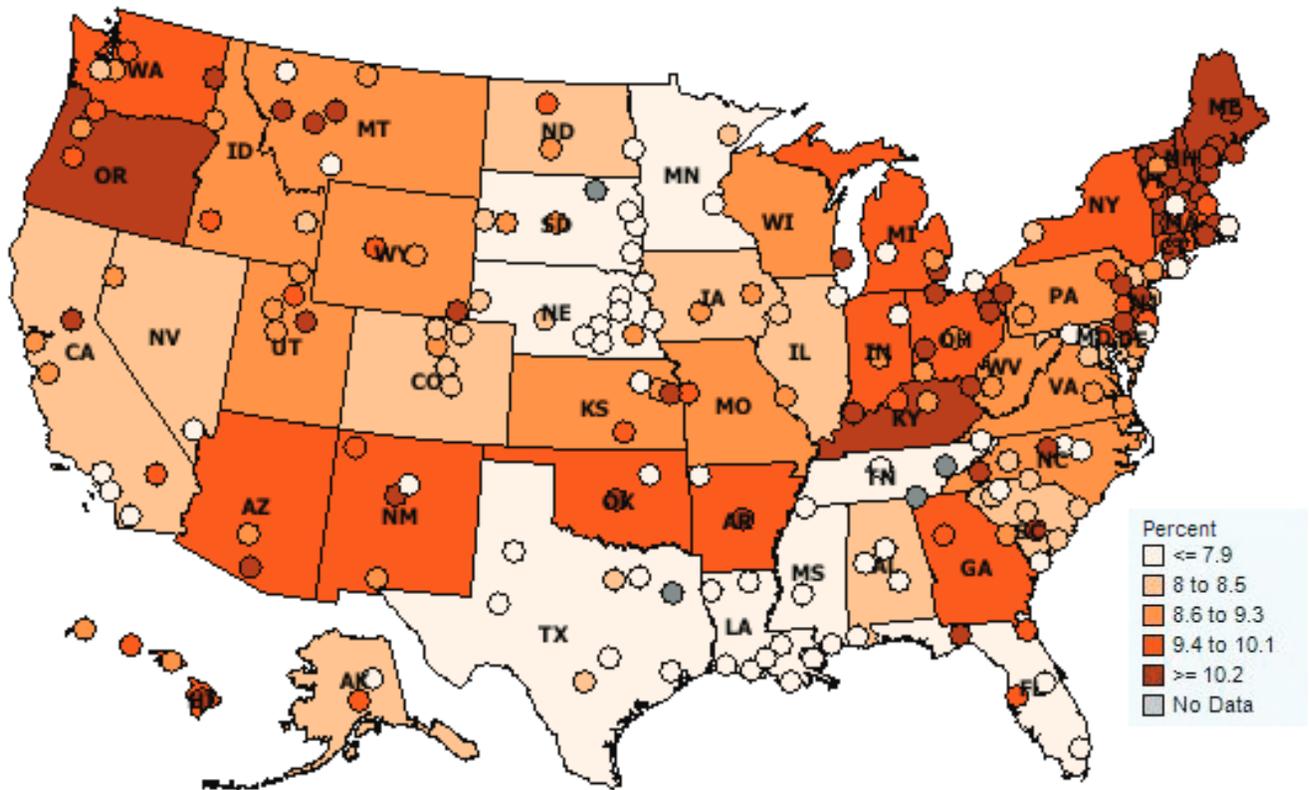




PART B. Prevalence of Asthma among Adults in Georgia

Adult Asthma Prevalence from BRFSS

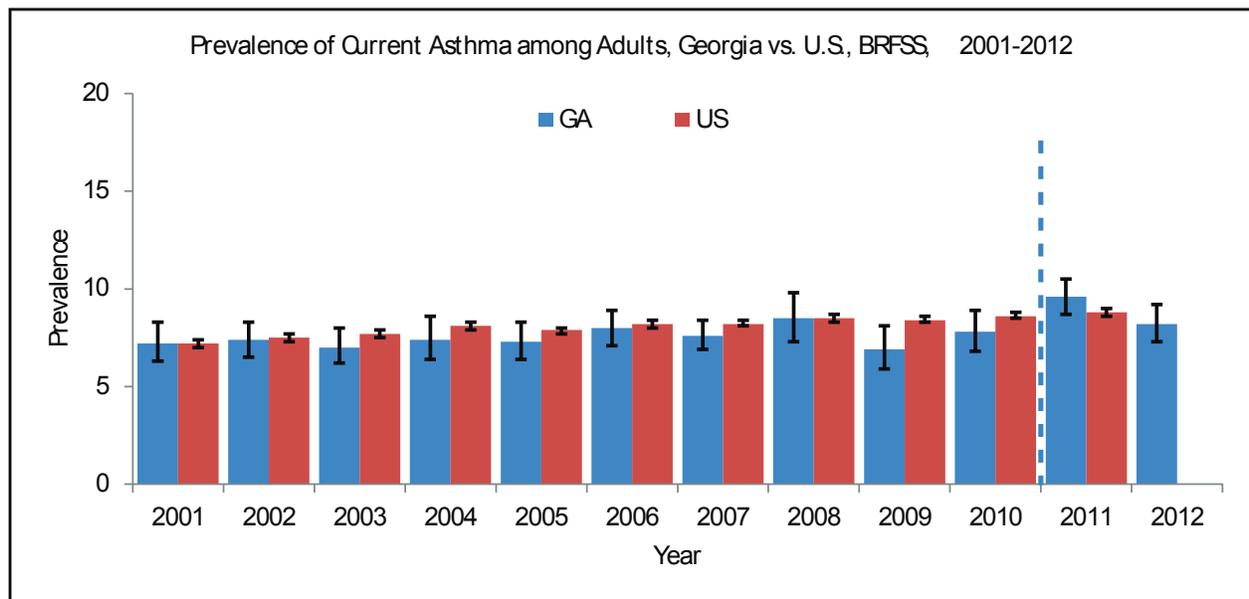
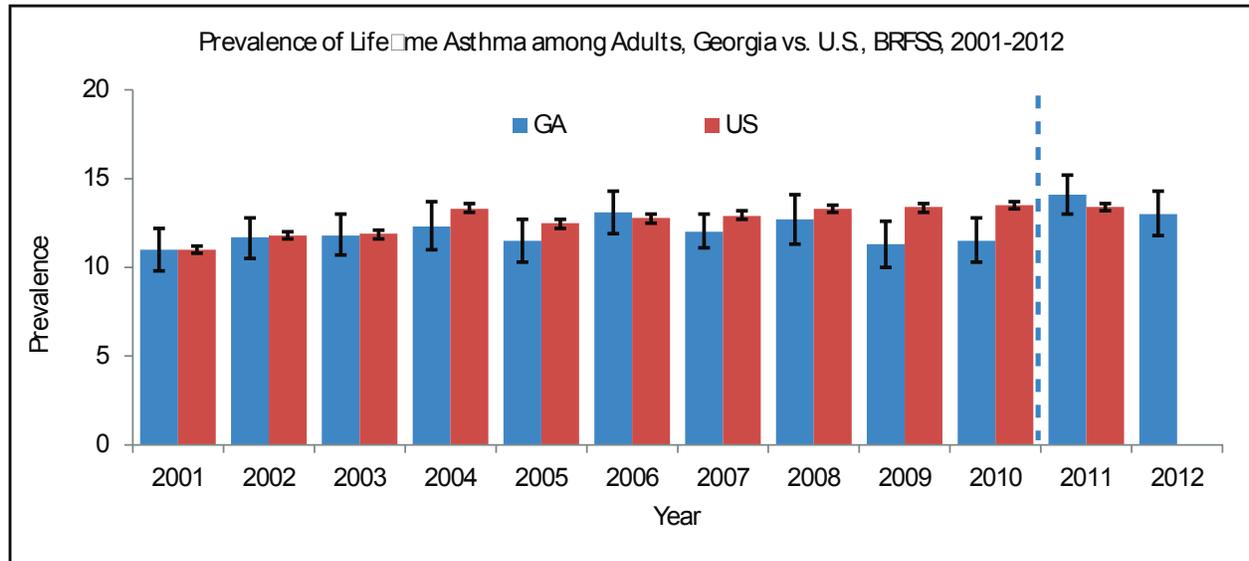
Map 1. Prevalence of Current Asthma by States and Territories, 2011 National BRFSS



Data and Map Source: 2011 BRFSS National Data, from the BRFSS website at <http://apps.nccd.cdc.gov/gisbrfss/map.aspx>

Georgia Asthma Prevalence Compared to the US, Adults BRFSS, 2001-2012

The prevalence of 'lifetime asthma' was measured by asking survey respondents 'Has a doctor, nurse, or other health professional ever told you that you had asthma?' Current asthma prevalence was also measured by asking respondents, 'Do you still have asthma?'

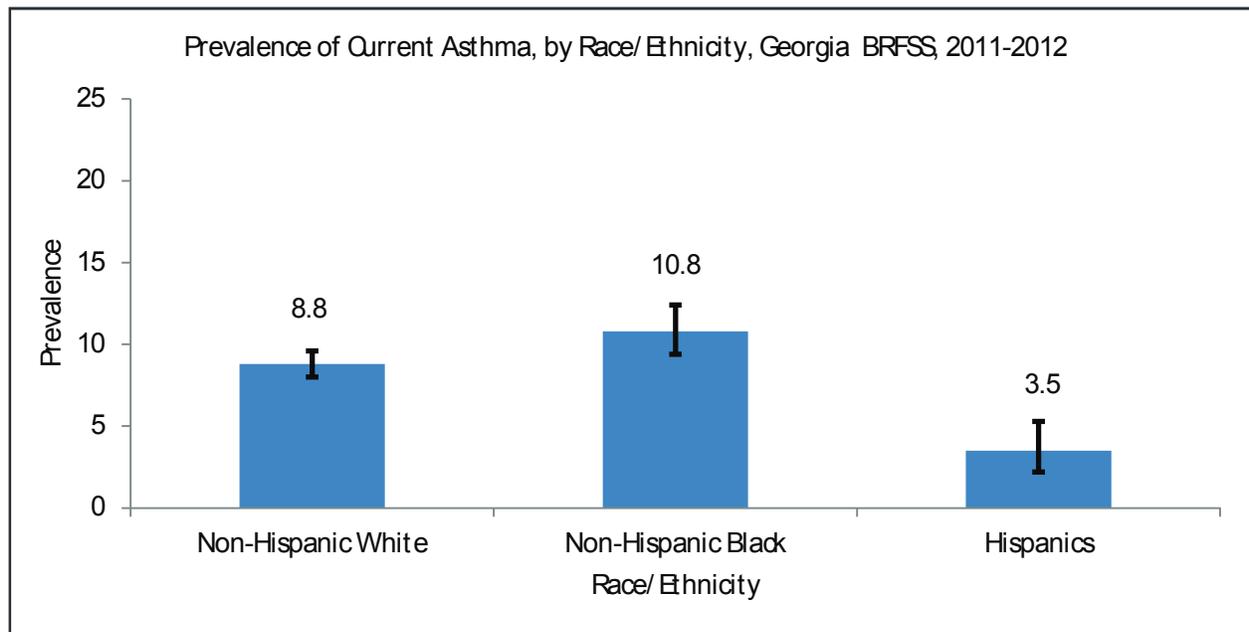


Note: The vertical dashed line denotes the point at which the BRFSS weighting methodology changed. Beginning 2011, the estimates are not comparable to earlier years. The US estimate was not available for 2012.

- Between 2001 and 2010, lifetime and current asthma prevalence among Georgia adults was consistently lower than the U.S. estimates. However, these numbers were not statistically different from each other.
- In 2011, both the lifetime and current asthma prevalence among adult Georgians was higher than the U.S. estimate, but the two estimates were not statistically different.

Prevalence of Lifetime and Current Asthma among Georgia Adults, BRFSS, 2011-2012

- In Georgia during 2011-2012, the overall current asthma prevalence among adults 18 years and older was 8.9%. This was 4.6% lower than the lifetime asthma prevalence (13.5%) among adult Georgians.
- Females had significantly higher asthma prevalence than males for both lifetime (15.5% vs 11.5%) and current (11.3% vs 6.3%) asthma.
- Non-Hispanic blacks reported higher asthma prevalence than non-Hispanic whites or Hispanics for both lifetime and current asthma.
- About 69% of non-Hispanic blacks with lifetime asthma still had asthma compared to 64% non-Hispanic whites and 54% of Hispanics.
- There was no significant difference in either lifetime or current prevalence of asthma by age groups, though the highest lifetime and current asthma prevalences (19.5% and 9.7%) were observed among adults 18-24 years of age.
- Both lifetime and current asthma prevalence decreased as annual household income and level of education increased. Both lifetime and current asthma prevalence was almost two times higher among individuals with annual household incomes of less than \$15,000 (20.3% and 15.2%) than those whose annual household income was \$75,000 or more (10.7% and 6.0%). Similarly, the prevalence of current asthma was almost two times higher among individuals with less than a high school (HS) diploma (12.8%) than among those with a college degree (6.6%).
- The relationship between asthma prevalence and household annual income was consistent across age groups as well as race/ethnicity.



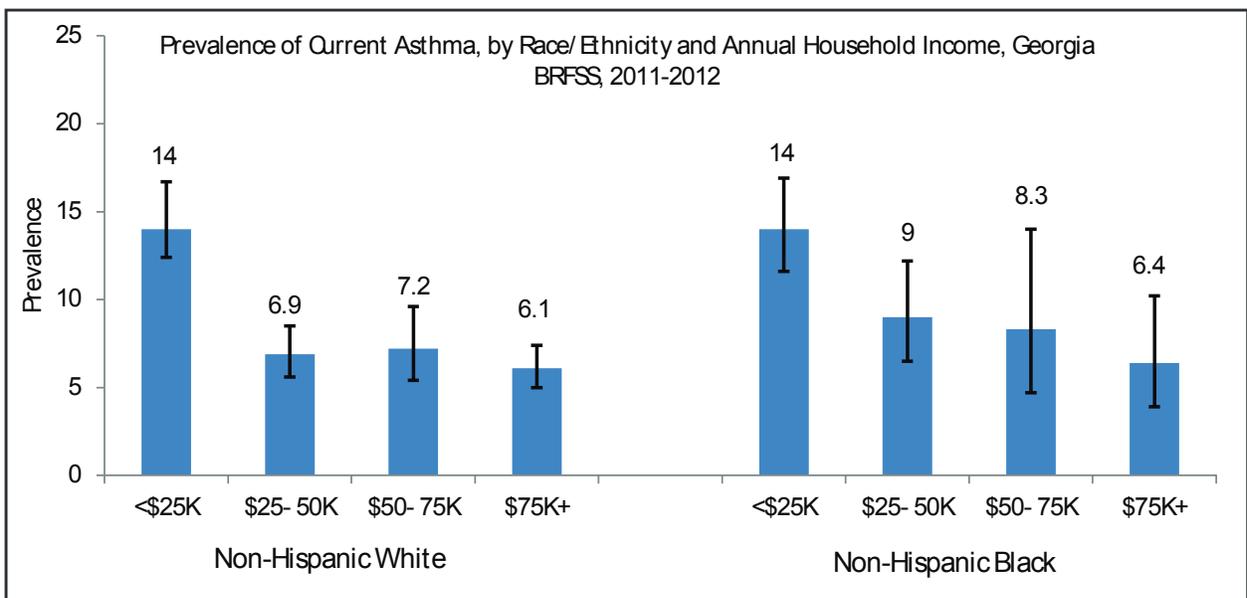
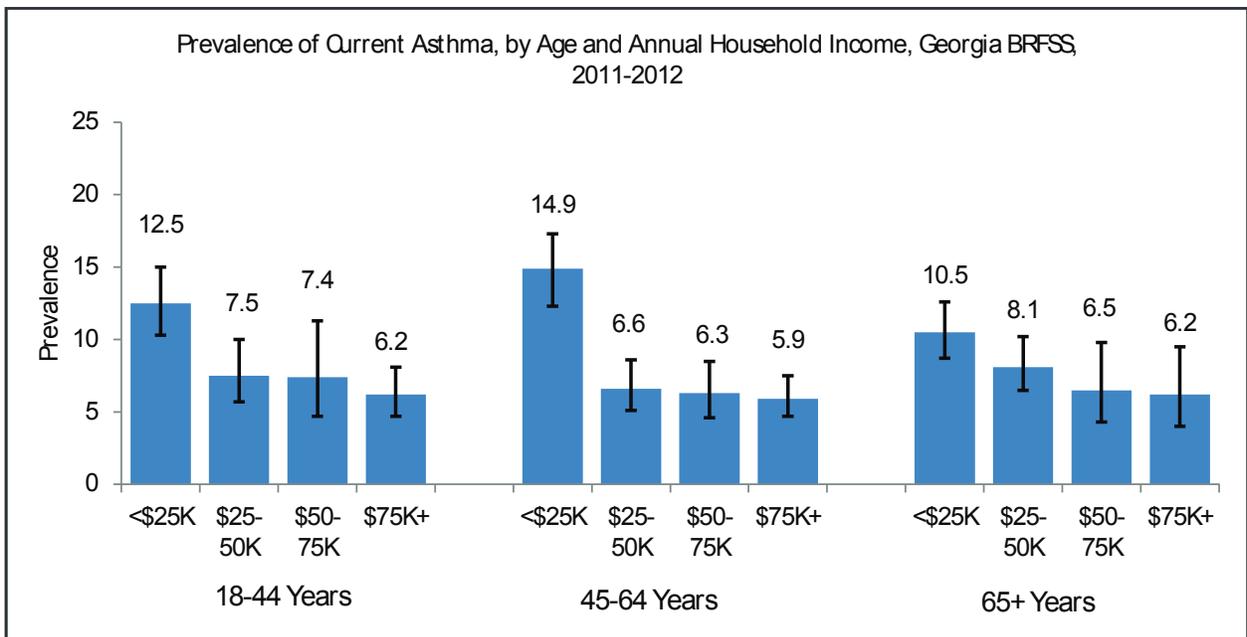
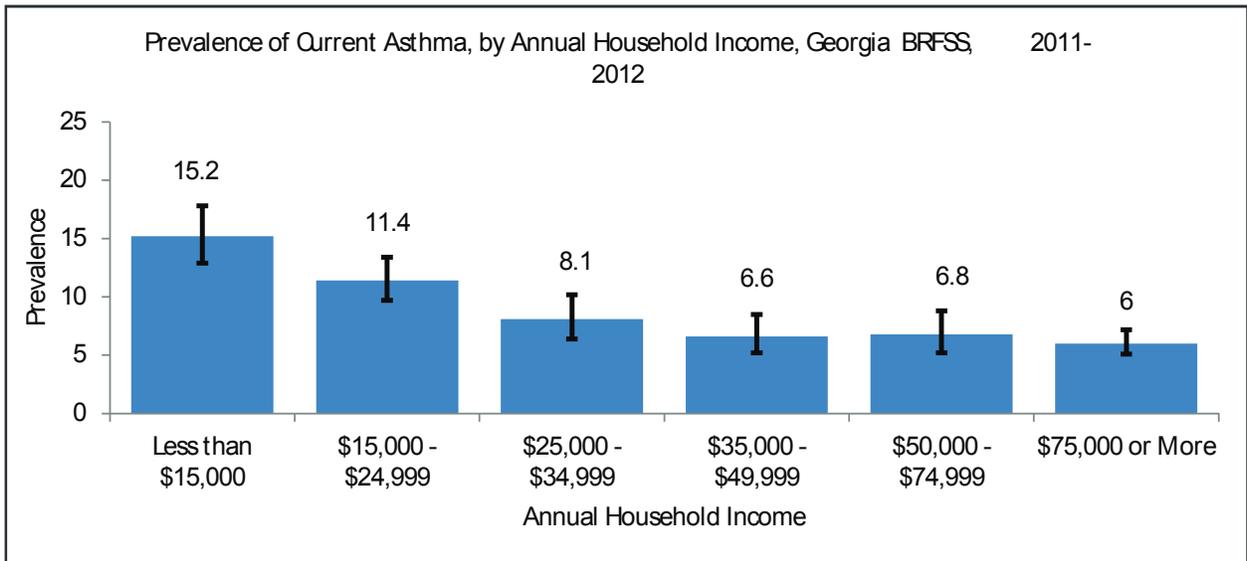


Table 1: Lifetime and Current Asthma Prevalence, by Demographic Characteristics, Georgia BRFSS, 2011-2012

Parameter	Lifetime Asthma ^a		Current Asthma ^b	
	%	95% CI	%	95% CI
Total	13.5	(12.7, 14.4)	8.9	(8.2, 9.6)
SEX				
Male	11.4	(10.2, 12.7)	6.3	(5.4, 7.2)
Female	15.5	(14.5, 16.7)	11.3	(10.4, 12.3)
RACE/ETHNICITY				
Non-Hispanic White	13.7	(12.6, 14.7)	8.8	(8.0, 9.6)
Non-Hispanic Black	15.2	(13.5, 17.0)	10.8	(9.4, 12.4)
Hispanics	6.5	(4.5, 9.4)	3.5	(2.2, 5.3)
AGE				
18-24 yr	19.5	(16.1, 23.3)	9.7	(7.4, 12.5)
25-34 yr	14.3	(12.1, 16.8)	9.2	(7.5, 11.3)
35-44 yr	11.2	(9.6, 13.1)	8.0	(6.6, 9.6)
45-54 yr	13.1	(11.6, 14.7)	9.1	(7.9, 10.6)
55-64 yr	13.2	(11.8, 14.8)	9.0	(7.8, 10.4)
65+ yr	11.2	(10.1, 12.4)	8.6	(7.6, 9.7)
INCOME				
< \$15,000	20.3	(17.5, 23.5)	15.2	(12.9, 17.8)
\$15,000-\$24,999	16.0	(14.0, 18.3)	11.4	(9.7, 13.4)
\$25,000-\$34,999	12.1	(10.0, 14.6)	8.1	(6.4, 10.2)
\$35,000-\$49,999	11.5	(9.3, 14.0)	6.6	(5.2, 8.5)
\$50,000-\$74,999	10.8	(8.9, 13.1)	6.8	(5.2, 8.8)
\$75,000 or More	10.7	(9.3, 12.2)	6.0	(5.1, 7.2)
EDUCATION				
<High School	17.7	(15.3, 20.4)	12.8	(10.8, 15.0)
High School Graduate	12.7	(11.3, 14.2)	8.6	(7.5, 9.8)
Some College	14.0	(12.4, 15.7)	9.0	(7.7, 10.4)
College Graduate	11.3	(10.2, 12.6)	6.6	(5.7, 7.6)
HEALTH INSURANCE				
Yes	13.1	(12.3, 14.0)	8.6	(7.9, 9.3)
No	14.8	(12.8, 17.1)	10.0	(8.4, 11.8)

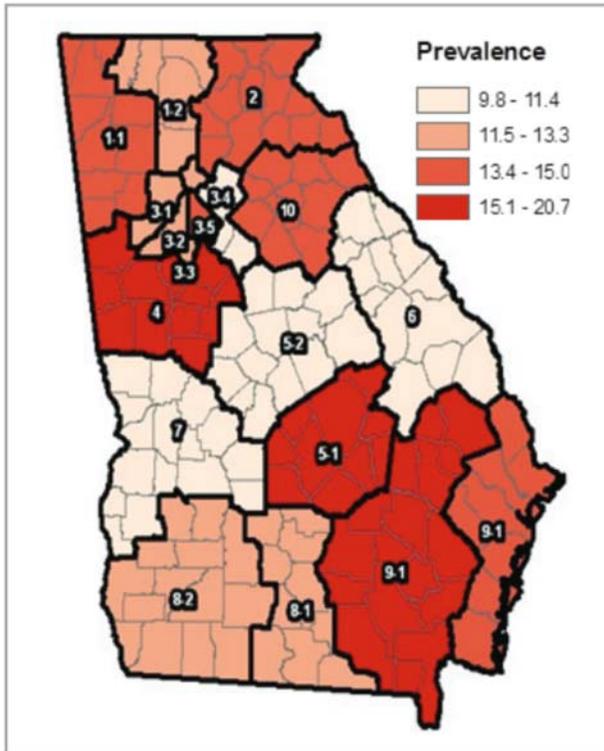
Prevalence of Asthma by Public Health District, 2011 and 2012 Georgia BRFSS

- In Georgia during 2011-2012, the three Public Health Districts with the highest lifetime asthma prevalence were Southeast (9-2), LaGrange (4-0), and South Central (5-1) (Map 2).
- During 2011-2012, the three Public Health Districts in Georgia with the highest current asthma prevalence were Southeast (9-2), DeKalb (3-5), and Northwest (1-1) (Map 3).
- In Georgia during 2011-2012, the prevalence of current asthma was not significantly different for residents of Atlanta-Sandy Springs-Marietta Metropolitan Statistical Area (8.7%) than among residents in other parts of the State (9.0%) (Map 4).
- Current asthma prevalence was higher among residents of rural counties (10.0%) than among residents in non-rural counties (8.4%) in Georgia (Map 5).

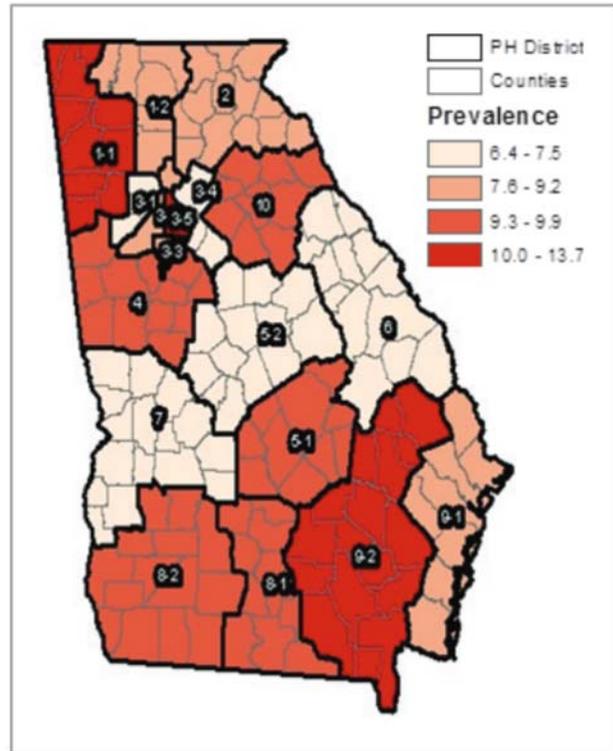
Table 2: Lifetime and Current Prevalence of Asthma, by Public Health District, Georgia, 2011-2012 BRFSS				
Health District	Lifetime Asthma		Current Asthma	
	%	95% CI	%	95% CI
	13.5	(12.7, 14.4)	8.9	(8.3, 9.6)
1-1 Northwest Health District (Rome)	13.9	(11.1, 17.4)	10.4	(7.9, 13.7)
1-2 North Georgia Health District (Dalton)	13.3	(10.2, 17.1)	8.3	(6.0, 11.4)
2-0 North Health District (Gainesville)	14.7	(11.4, 18.9)	8.4	(6.2, 11.4)
3-1 Cobb/Douglas Health District	11.9	(8.9, 15.7)	7.3	(5.1, 10.4)
3-2 Fulton Health District	13.2	(10.4, 16.8)	8.4	(6.1, 11.5)
3-3 Clayton County Health District (Jonesboro)	13.0	(8.6, 19.2)	8.5	(5.0, 14.1)
3-4 East Metro Health District (Lawrenceville)	11.0	(8.7, 13.9)	7.1	(5.3, 9.5)
3-5 DeKalb Health District	15.0	(11.9, 18.7)	11.2	(8.5, 14.6)
4-0 LaGrange Health District	16.9	(13.3, 21.1)	9.9	(7.5, 13.0)
5-1 South Central Health District (Dublin)	16.6	(11.1, 24.2)	9.9	(6.2, 15.6)
5-2 North Central Health District (Macon)	11.4	(8.5, 15.2)	7.5	(5.4, 10.3)
6-0 East Central Health District (Augusta)	10.1	(7.6, 13.2)	7.0	(5.1, 9.5)
7-0 West Central Health District (Columbus)	9.8	(7.3, 13.1)	6.4	(4.5, 8.9)
8-1 South Health District (Valdosta)	12.3	(8.8, 16.9)	9.5	(6.3, 14.0)
8-2 Southwest Health District (Albany)	12.1	(9.2, 15.9)	9.6	(6.9, 13.2)
9-1 Coastal Health District (Savannah)	13.8	(10.6, 17.7)	9.2	(6.7, 12.4)
9-2 Southeast Health District (Waycross)	20.7	(16.4, 25.9)*	13.7	(10.2, 18.2)*
10-0 Northeast Health District (Athens)	14.5	(11.1, 18.6)	9.4	(6.9, 12.7)

*Prevalence is significantly higher than the state average

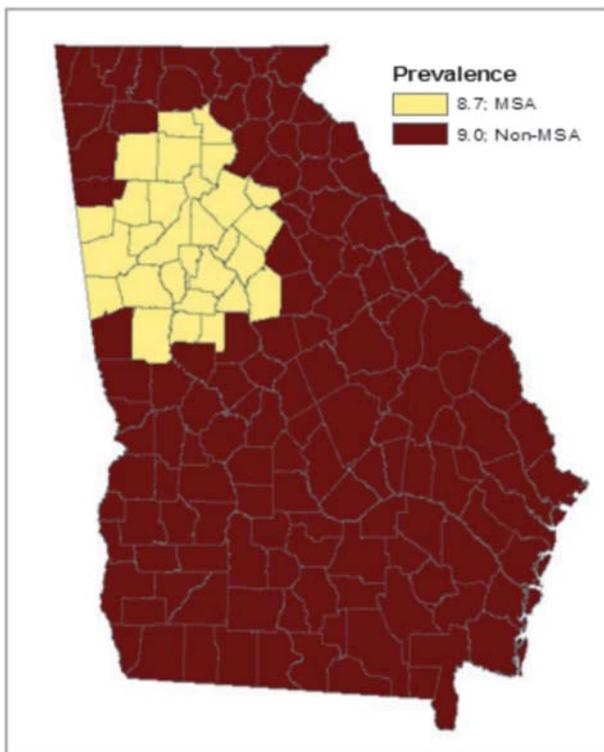
Map 2: Prevalence of Lifetime Asthma, by Public Health District, Georgia BRFSS, 2011-2012



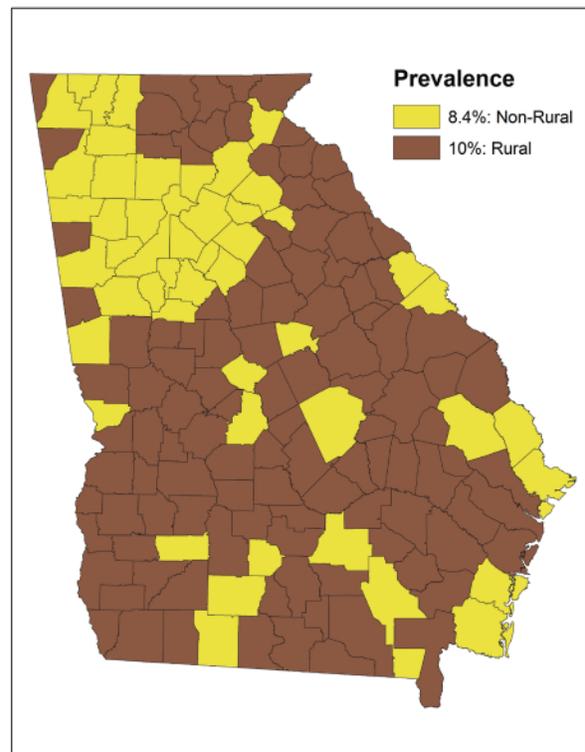
Map 3: Prevalence of Current Asthma, by Public Health District, Georgia BRFSS, 2011-2012



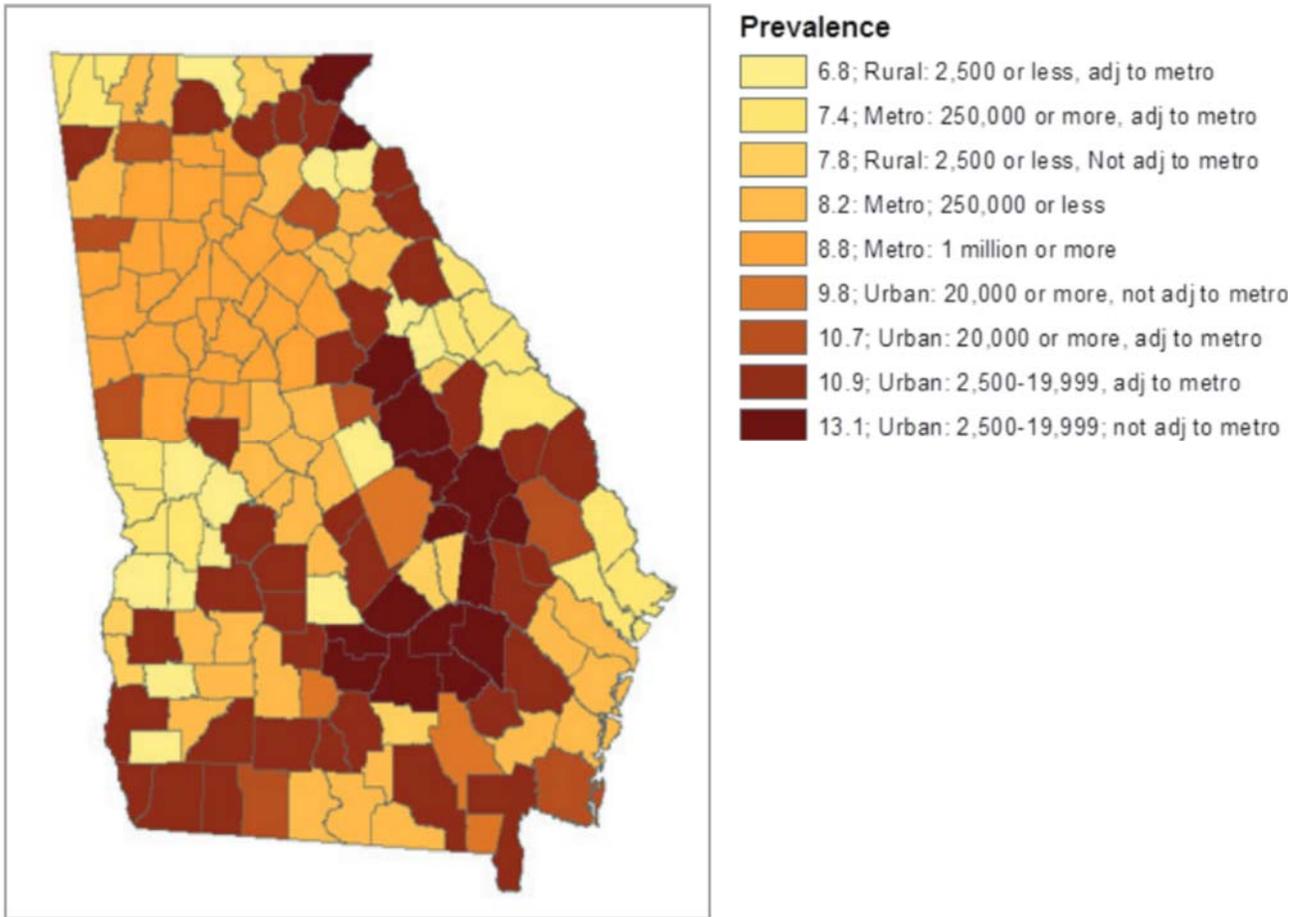
Map 4. Current asthma prevalence - Atlanta-Sandy Springs-Marietta Metropolitan Statistical Area (MSA) vs. remaining Counties, Georgia, 2011-2012 BRFSS



Map 5. Current asthma prevalence – Urban vs Rural Counties, Georgia, 2011-2012 BRFSS



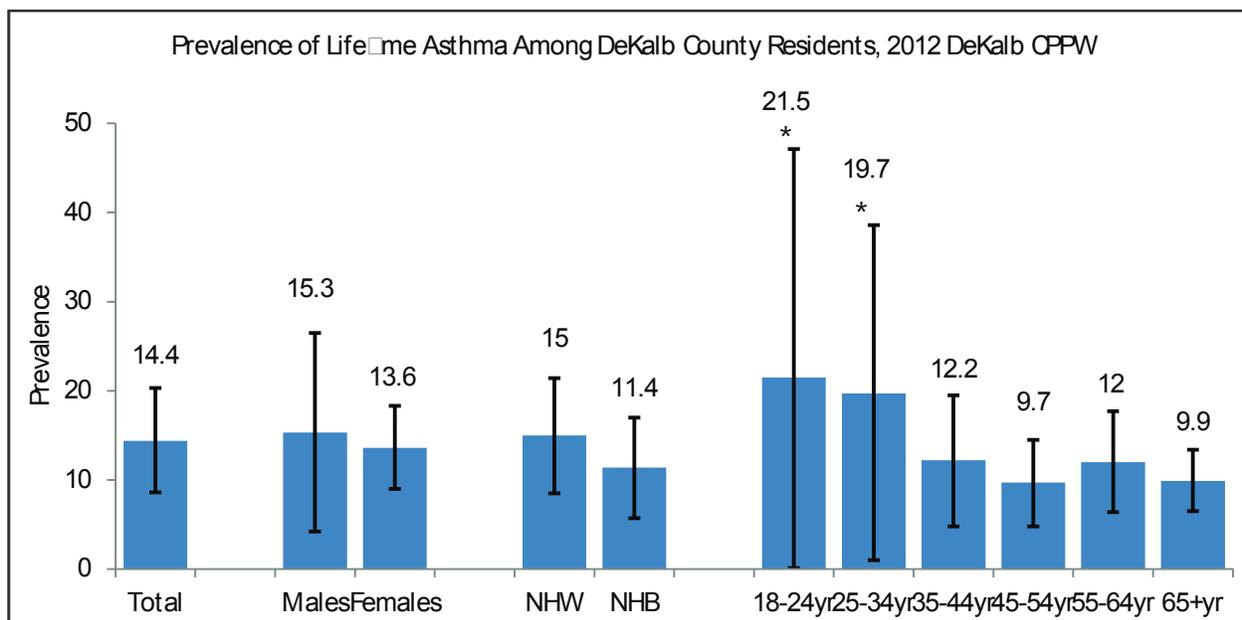
Map 6. Current asthma prevalence by counties using Rural Urban Continuum Code, Georgia, 2011-2012 BRFSS



Other Sources of Data for Georgia Adult Asthma Prevalence Estimate

Data Source: DeKalb County Community Putting Prevention to Work (CPPW), 2012

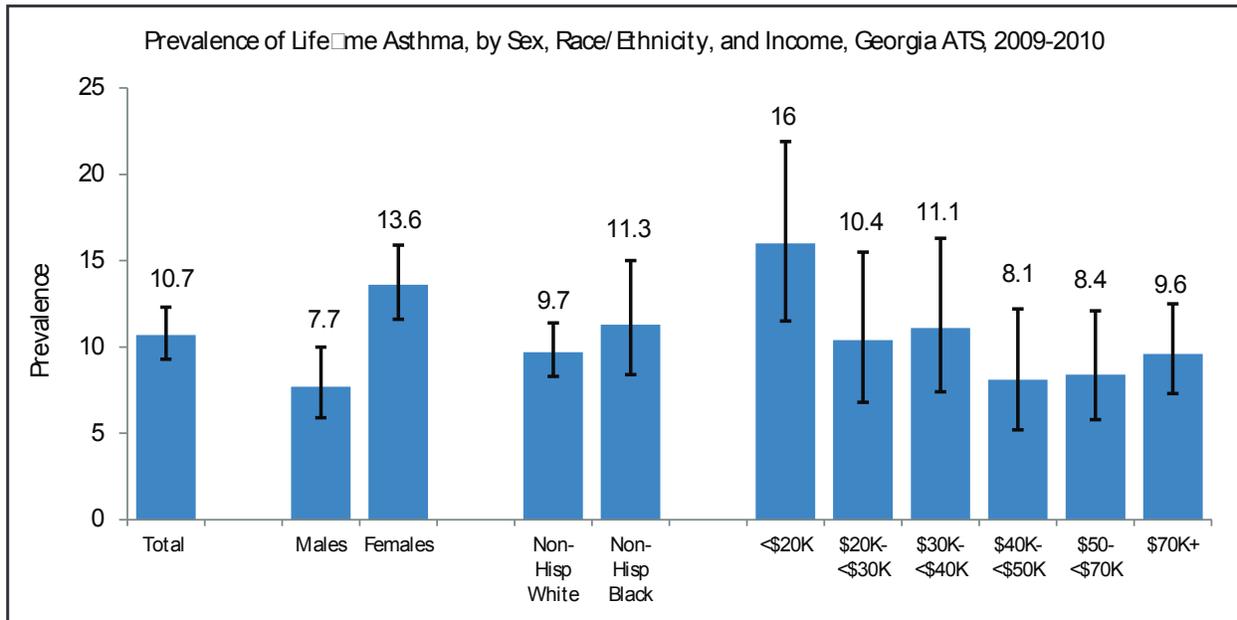
- In 2012, the prevalence of lifetime asthma among DeKalb County adults 18 years and older was 14.4%.
- The prevalence of lifetime asthma among adult males (15.3%) was higher than adult females (13.6%) in DeKalb County.
- The prevalence of lifetime asthma was higher among non-Hispanic whites than non-Hispanic blacks.
- The prevalence of lifetime asthma among DeKalb County residents decreased with increasing age.
- There was no clear pattern observed regarding lifetime asthma among DeKalb County residents by income or education.
- Of those ever been told that they had asthma, 44.8% had an asthma attack or an episode of asthma during the past 12 months.



Note: NHW=Non-Hispanic White, NHB=Non-Hispanic Black.
 *Estimates are not reliable and should be interpreted with caution.

Data Source: Georgia Adult Tobacco Survey (ATS), 2010

- In 2009 and 2010, about 11% of adult Georgians had lifetime asthma.
- Females were almost two times more likely to have lifetime asthma than males.
- Non-Hispanic blacks were more likely to have lifetime asthma than non-Hispanic whites.
- Lifetime asthma was more common among individuals whose annual household income was less than \$20,000.



NHW=Non-Hispanic White, NHB=Non-Hispanic Black

Prevalence of Current Asthma by Selected Conditions among Adults

Data Source: 2011-2012 Georgia BRFSS

Current Asthma and Health Related Quality of Life (HRQL) Measures

HRQL has been defined by the CDC as “an individual’s or group’s perceived physical and mental health over time”⁴.

Four HRQL questions included in the core section of the BRFSS since 1993 are:

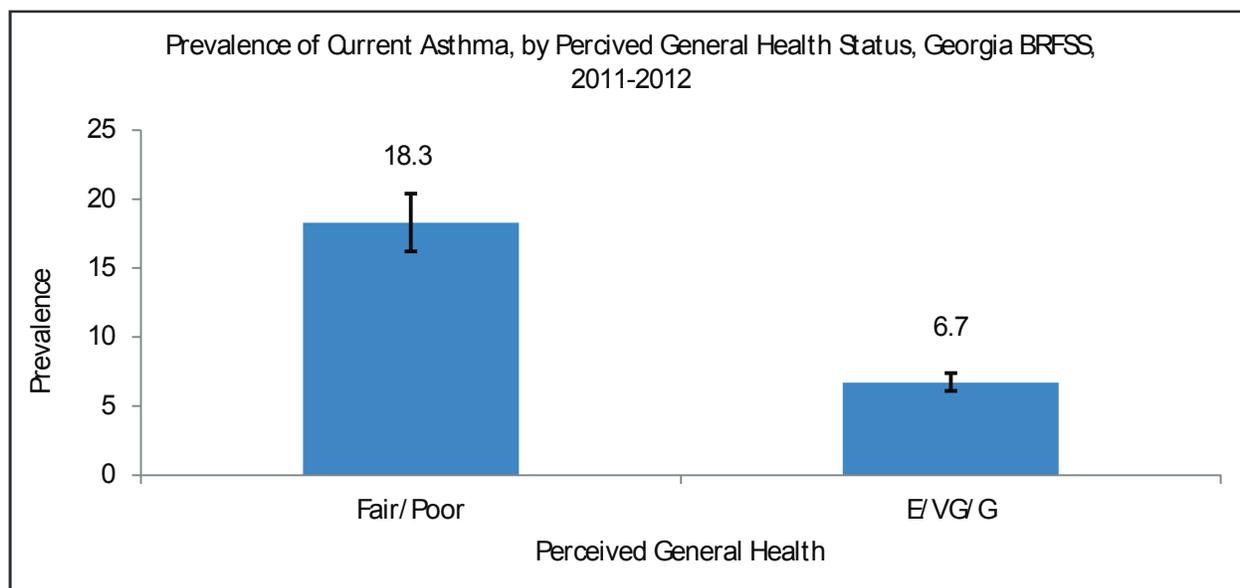
1. Would you say that in general your health is excellent, very good, good, fair, or poor?
2. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
3. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
4. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

Prevalence of Current Asthma by Self-Perceived General Health Status

Self-perceived health status is a measure of how individuals perceive their health, rating it as excellent, very good, good, fair, or poor. This measure is a useful indicator of health for a variety of populations and allows for general comparisons.

In this report, self-perceived health was estimated using the HRQL question number 1. Responses were categorized into individuals who responded to having excellent, very good or good general health as one group (E/VG/G) and those who indicated their health to be fair or poor as other group (F/P).

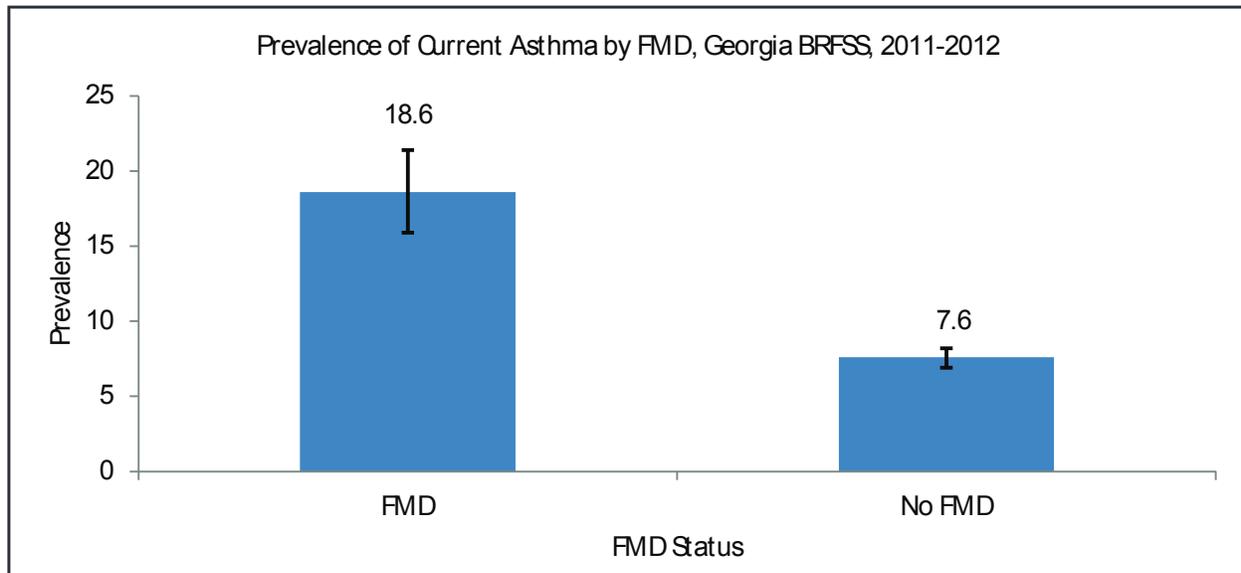
- In Georgia during 2011 and 2012, the prevalence of current asthma was almost three times higher among individuals who perceived their general health as fair or poor (18.3%; 95% CI=16.2-20.4) compared to those who perceived their health as excellent, very good, or good (6.7%); 95% CI=6.1-7.4). This difference was statistically significant.



Prevalence of Current Asthma by Frequent Mental Distress (FMD)

FMD refers to having 14 or more mentally unhealthy days during the previous 30 days.

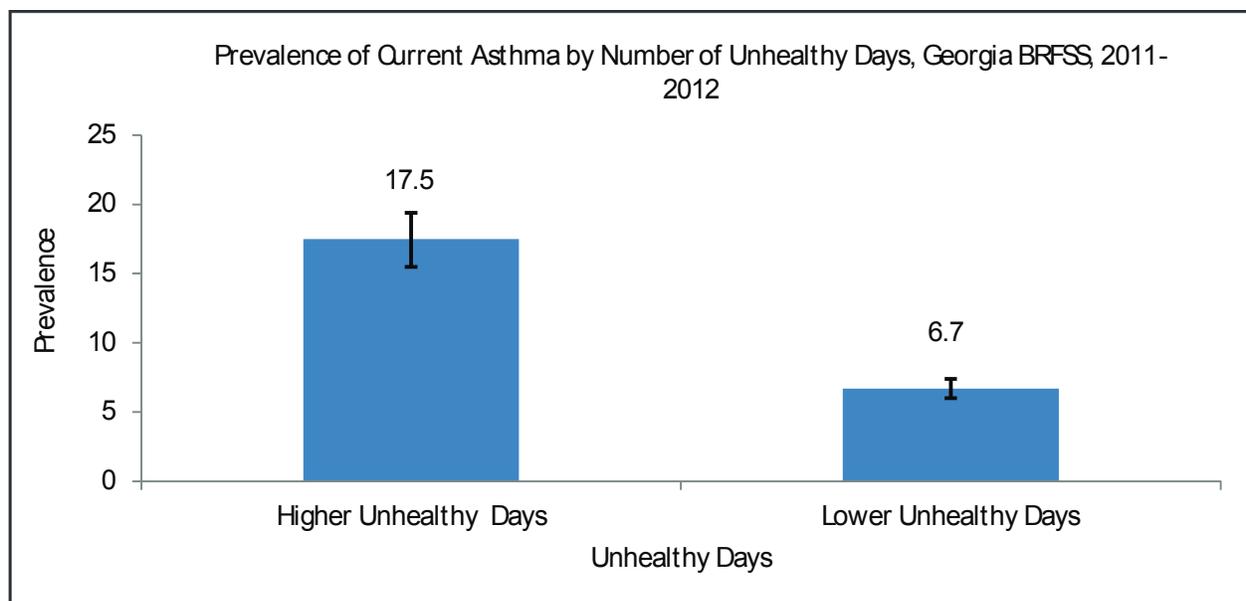
- During 2011 and 2012, the prevalence of current asthma among adult Georgians who reported having FMD was almost two times higher (18.6%) than those who did not report FMD (7.6%).



Prevalence of Current Asthma by Unhealthy days

Unhealthy days in this report were estimated by combining responses from HRQL questions 2 and 3 (physically unhealthy days and mentally unhealthy days) with maximum value of 30 (days). Individuals whose score exceeded the mean were considered as having higher number of unhealthy days while those whose score was lower than the mean were considered as having lower number of unhealthy days.

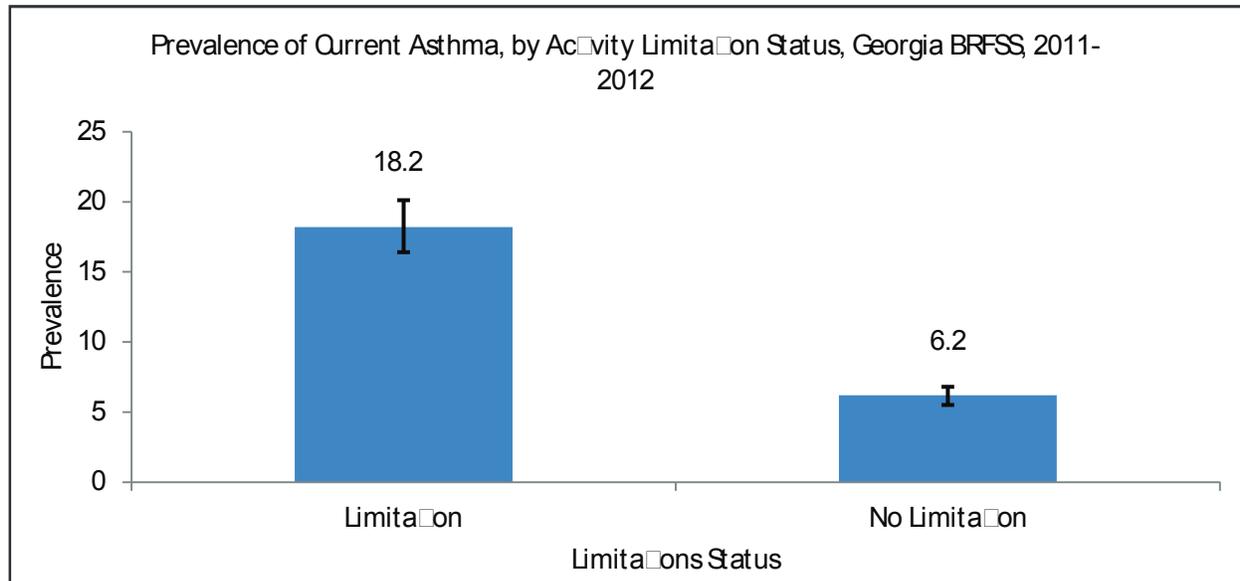
- Among adult Georgians during 2011-2012, the prevalence of current asthma was more than two times higher among individuals whose number of unhealthy days was higher than the mean (17.5%; 95% CI=15.5-19.4) compared to those whose number of unhealthy days was lower than the mean (6.7%; 95% CI=6.0-7.4). The difference was statistically significant.



Prevalence of Current Asthma by Activity Limitation

Respondents were asked if they were limited in any way in any activities because of physical, mental, or emotional problems.

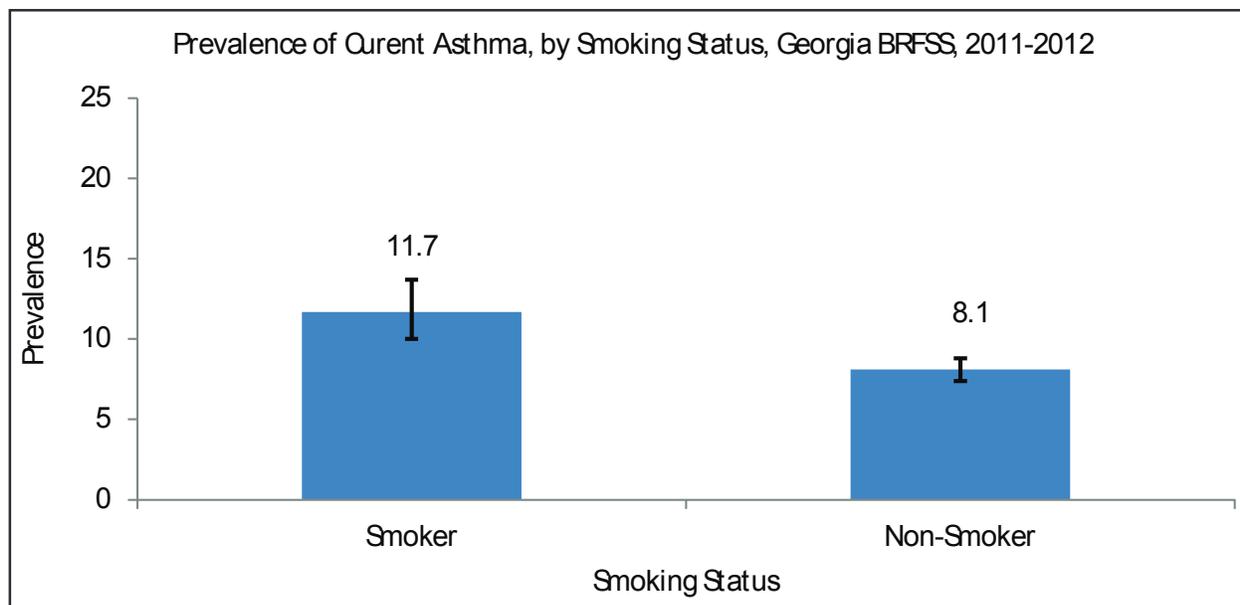
- The prevalence of current asthma among individuals who indicated they had activity limitations due to physical, mental or emotional problems was almost three times higher (18.2%) than those without activity limitations (6.2%).



Current Asthma and Smoking

Epidemiologic studies have suggested an association between smoking and asthma⁵. Tobacco smoking is a common environmental asthma trigger and is associated with increased asthma severity and decreased effectiveness of asthma medications⁶⁻⁸.

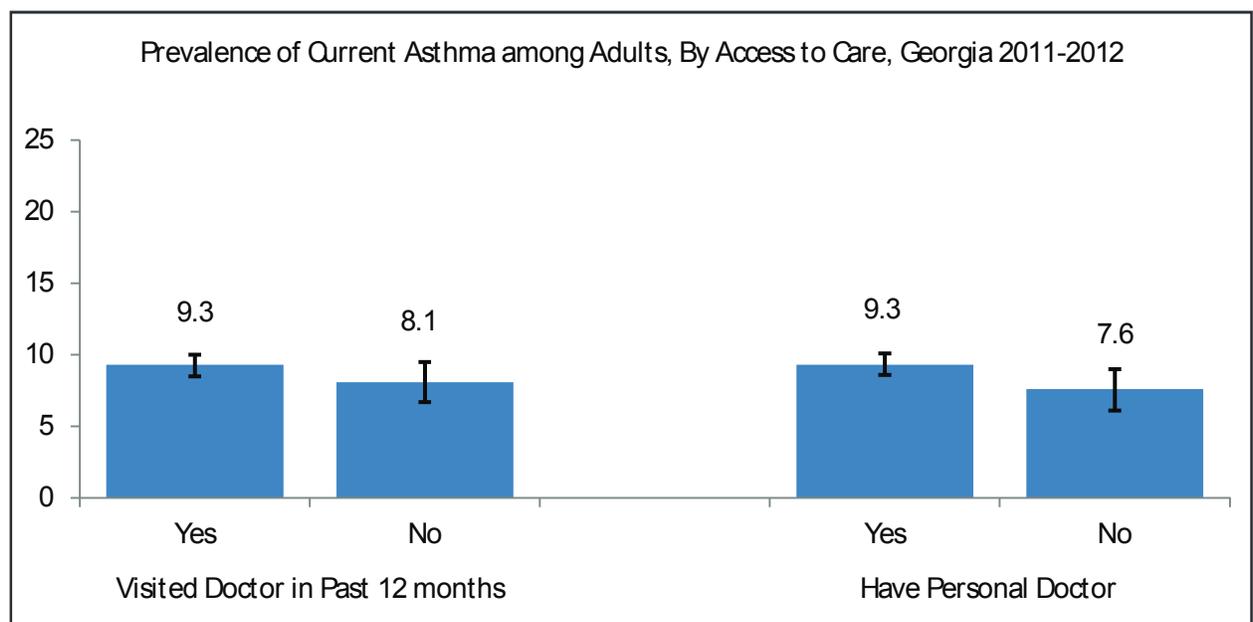
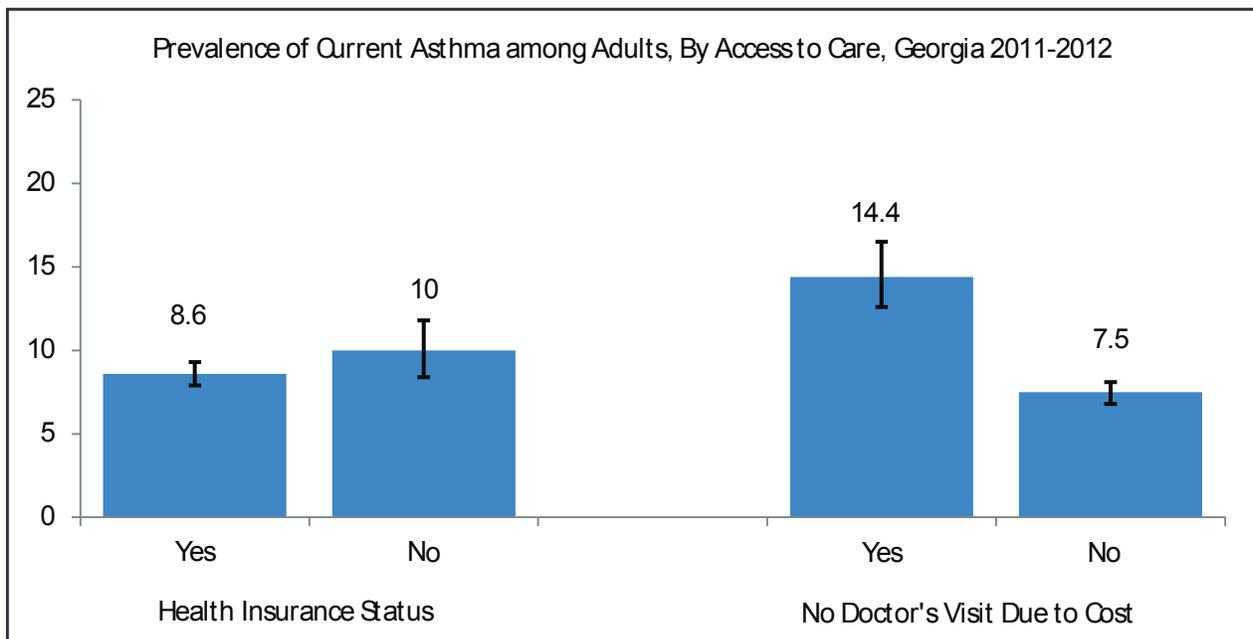
- The prevalence of current asthma was significantly higher among Georgia adult smokers than non-smokers.
- A significantly greater proportion of Georgians with current asthma smoked cigarettes (27.4%) than those without current asthma (20.0%).



Current Asthma and Health Care Access

Regular physician visits are important for good management of a chronic condition such as asthma. Health insurance coverage is an important factor in determining whether people will have access to filling their asthma control and relief medications.

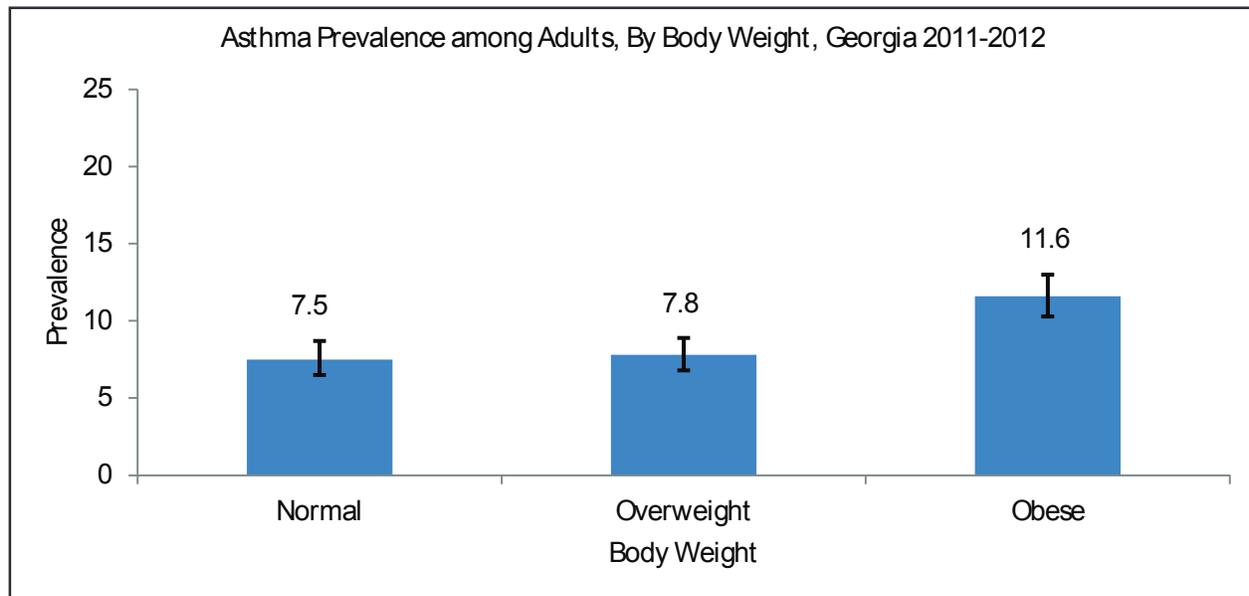
- In Georgia during 2011-2012, the prevalence of current asthma was higher among adults without health insurance (10.0%) than those who had health insurance (8.6%).
- Current asthma prevalence was higher among individuals who reported they could not visit a doctor in the previous 12 months when they needed to due to cost (14.4%) than those who did not have such cost barriers (7.5%).
- The prevalence of current asthma was slightly higher among individuals who reported visiting their doctor in the past 12 months (9.3%) than those who did not (8.1%).
- Individuals with personal doctors reported slightly higher asthma prevalence (9.3%) than those without a personal doctor (7.6%).



Current Asthma and Obesity

Obesity is defined as body mass index (BMI) of 30.0kg/m² or more. BMI= weight in kg/ (height in m)². Research has shown an association between prevalence and episodes of asthma and body mass index (BMI). Higher prevalences of asthma as well as frequent asthmatic attacks have been found among individuals who are obese than those who have normal body weight⁹.

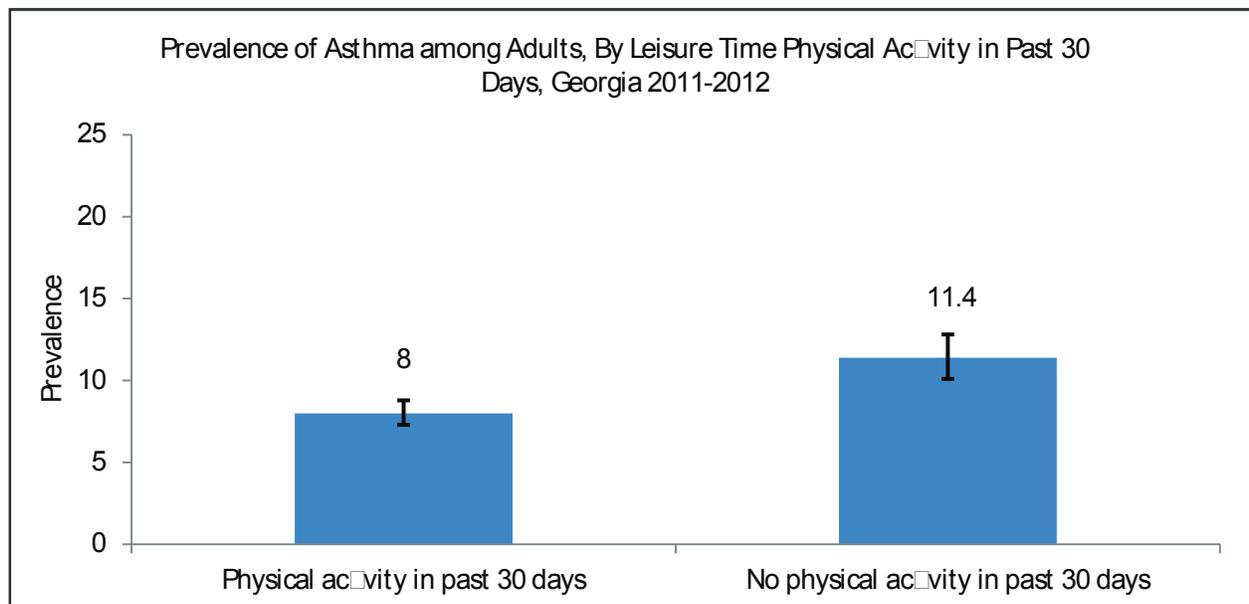
- The prevalence of current asthma was significantly higher among adults who were obese (11.6%) than adults with normal body weight (7.5%).



Current Asthma and Physical Activity

Regular physical activity helps maintain healthy body weight, and reduces symptoms of anxiety and depression.

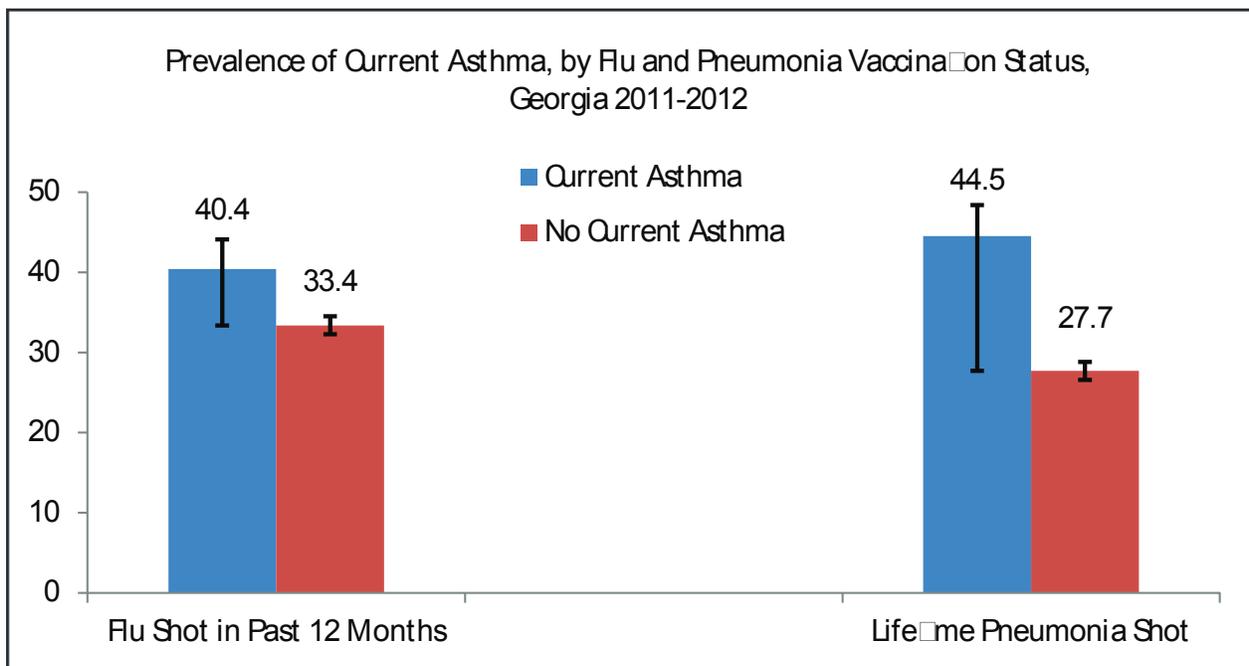
- Prevalence of current asthma was higher among individuals who reported they did not engage in any form of physical activity beside their work in the past 30 days.



Current Asthma and Vaccination among Adults

Adults and children with asthma are at an increased risk of having complications from influenza (flu) virus infections. The flu virus can increase the inflammation of the airways and lungs.

- During the 2012 BRFSS, the overall prevalence of flu vaccination among adults 18 years and older was 35.3% nationally and 34.2% in Georgia.
- In Georgia during 2011-2012, 40% and 45% of adults with asthma had received flu and pneumonia vaccinations, respectively, in the previous 12 months compared to 33% and 28% of individuals without asthma.



Discussions/Implications

Recognizing the impact that asthma continues to have on Georgia's citizens and institutions, the Georgia Department of Public Health's Asthma Control Program (GACP), in collaboration with the Georgia Asthma Advisory Board (GAAB), developed the 2013-2018 Strategic Plan for Addressing Asthma in Georgia.

The plan calls for Georgia to focus asthma control efforts on policy, system, and environmental change (PSE) approaches, and is designed to positively impact population-level behaviors and outcomes. The plan also recognizes the need to increase the availability, affordability, dissemination, and efficacy of individual evidence-based asthma management interventions. The economic cost of asthma is considerable, both in terms of direct medical costs such as hospital admissions and the cost of pharmaceuticals, and indirect medical costs such as time lost from work and premature death.

The four focal areas of Georgia's plan include Environmental, Family Support, Healthcare System, and School-Based Strategies. The areas of action that Georgia will concentrate on using findings from this report are listed under each goal area below.

Environmental

Goal: Decrease exposure to environment triggers for people with asthma.

Areas of Action

- Clean air policies, including smoke-free indoor air policies
- Home-based, multi-trigger, multi-component interventions with an environmental focus aimed at reducing exposure of persons with asthma to multiple indoor asthma triggers (allergens and irritants.) These interventions involve home visits by trained personnel to conduct two or more activities.
- To maximize impact, targeted regions of the state will align with the strategic focus of the Georgia Tobacco Use Prevention Program, Georgia Lead and Healthy Homes Program, and the Georgia Asthma Control Program.

Family Support

Goal: Promote/support self-management in children ages 0-17 years diagnosed with asthma and their families

Areas of Action

- Home-based, multi-trigger, multi-component interventions with an environmental focus aimed at reducing exposure of persons with asthma to multiple indoor asthma triggers (allergens and irritants).
- Leveraging community-based organizations for the delivery of asthma management messages
- Combining asthma management education and home environment strategies

Healthcare Delivery Systems

Goals:

- I. Promote and increase implementation of National Asthma Education and Prevention Program (NAEPP) guidelines in the standards of care for the diagnosis, treatment and management of asthma
- II. Improve coverage and reimbursement rates for comprehensive asthma care
- III. Improve asthma information available via health information exchanges
- IV. Increase access to services and resources

Areas of Action

- Healthcare provider education and training based on NAEPP guidelines and best practices with focus on FQHCs and Medicaid providers
- Utilization of care team that includes certified asthma educators (CAE), community health workers (CHW), pharmacists, and other non-physician healthcare providers in the delivery of comprehensive asthma care
- Home-based, multi-trigger, multicomponent interventions with an environmental focus aimed at reducing exposure of persons with asthma to multiple indoor asthma triggers (allergens and irritants). These interventions involve home visits by trained personnel to conduct two or more activities (CDC Recommended)
- Coverage and reimbursement improvements among CMOs and 3rd party payors supporting a comprehensive asthma management approach
- Development and/or incorporation of asthma management within telemedicine sites in schools and rural settings

School and Childcare Settings

Goals:

- I. Reduce the impact of asthma on the development and academic success of Georgia's children
- II. Improve the integration of care management between healthcare providers and schools and childcare settings.

Areas of Action

- Establishing management and support systems for asthma-friendly schools and childcare settings
- Providing asthma education and awareness programs for students and school staff
- Coordinating school, family, clinical, and community efforts to better manage asthma symptoms and reduce school absences among students with asthma.
- Providing safe, enjoyable physical education and activity opportunities for students with asthma

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Appendix

Data Descriptions and Limitations

Behavioral Risk Factor Surveillance System

Description

The BRFSS is a statewide stratified random-digit dial telephone interview conducted among non-institutionalized residents 18 years and older to ascertain their health conditions, behaviors, and use of preventive services. The Georgia BRFSS is conducted in conjunction with the Centers for Disease Control and Prevention (CDC).

Even though the Georgia BRFSS is a survey for adults 18 years and older, for households with children, the adult respondent was asked questions about the asthma status of a selected child aged 0-17 years living in their households. Two asthma questions relating to child and adult asthma were asked in the BRFSS –

1. 'Has a doctor, nurse or other health professional ever told you (or said that the child) had asthma?'
2. 'Do you (does the child) still have asthma?'

Limitations

Estimates from the BRFSS are derived from self-reported interviews with no verification of respondents having been diagnosed of asthma by a health care professional. Also, respondents' self-reporting is subject to recall bias which might affect prevalence estimates. The survey does not identify undiagnosed cases of asthma, therefore the prevalence estimates from the BRFSS may underestimate the true asthma prevalence among Georgians.

DeKalb County Community Putting Prevention to Work (CPPW), 2012

Data Description

The CPPW collected population-based data from DeKalb County residents 18 years and older between September and November 2012. The 2012 CPPW used similar data collection protocols as the 2012 Georgia BRFSS. It used a multi-level sampling approach. The purpose of the survey was to collect information about chronic diseases and risk behaviors among the residents of DeKalb County, Georgia. Three asthma related questions were asked during the 2012 CPPW survey. These were:

1. "Have you ever been told by a doctor, nurse, or other health professional that you had asthma?"
2. "During the past 12 months, have you had an episode of asthma or an asthma attack?"
3. "During the past 12 months, how many times did you visit an emergency room or urgent care center because of your asthma?"

Limitations

The coverage of the 2012 DeKalb County CPPW was limited to only residents of the DeKalb County. Survey was also self-reported and may be subject to recall bias which might affect the estimated prevalence. The survey identified only diagnosed asthma and therefore might have underestimated the actual prevalence of asthma in DeKalb County.

Georgia Adult Tobacco Survey (ATS), 2010

Data Description

The Georgia Adult Tobacco Survey (ATS) is administered by the Centers for Disease Control and Prevention (CDC). It is a random-digit dialed telephone survey of non-institutionalized adult population aged 18 years and older. ATS collects data on tobacco use, smoking cessation, secondhand smoke exposure, risk perception and social influences, health influences, and tobacco-related policies.

During the 2010 ATS, two asthma related questions were asked. They were;

1. "Has a doctor or nurse ever told you that you have asthma?"
2. "During the past 12 months have you had an episode or an asthma attack?"

Although both the BRFSS and ATS are population-based, random-digit dialed telephone surveys of persons aged 18 years and older, the 2010 ATS survey used a weighting methodology (post-stratification) different from the 2011-2012 BRFSS weighting methodology (raked). Comparison of results from the two surveys is therefore not recommended.

Limitations

Estimates from the BRFSS are derived from self-reported interviews with no verification of respondents having been diagnosed of asthma by a health care professional. Respondents' self-reporting is subject to recall bias.

2011 Youth Risk Behavioral Survey (YRBS)

Data Description

The YRBS is a school-based survey conducted by the Centers for Disease Control and Prevention (CDC) and state, territorial, tribal, district and local education and health agencies and tribal governments. The YRBS monitors priority health-risk behaviors and the prevalence of some health conditions such as asthma among youth and young adults. The Georgia YRBS is conducted in public middle and high schools every odd-numbered year; Georgia data are available for 2003, 2005, 2007, 2009 and 2011. Two asthma related questions were asked during the 2011 YRBS survey. They were 'Has a doctor or nurse ever told you that you have asthma?' and 'Do you still have asthma?'

Limitation

YRBS is a self-reported survey and thus behavior estimates may be underreported or over-reported, although YRBS has been demonstrated to be of acceptable quality. YRBS also covers only youth in public middle and high schools and therefore is not representative of all youth in this age group in Georgia.

2013 Youth Tobacco Survey (YTS)

Data Description

The Georgia YTS is a self-administered survey given to Georgia's public middle school (MS) and high school (HS) students. The purpose of the survey is to provide data on long-term, intermediate, and short-term indicators key to the design, implementation, and evaluation of comprehensive tobacco prevention and control programs among youth. In 2013, three questions about asthma were asked. They were "Has a doctor or nurse ever told you that you have asthma?" and "Do you still have asthma?" This survey does not include students who attend private middle school and high schools, were home schooled, or those who do not attend school at all.

Limitations

Like YRBS, YTS is also a self-reported survey and thus behavior estimates may be underreported or over-reported, however, the extent of under or over-reporting cannot be determined. YTS also covers only youth in public middle and high schools and therefore is not representative of all youth in this age group such as those that attend private or home school.



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