

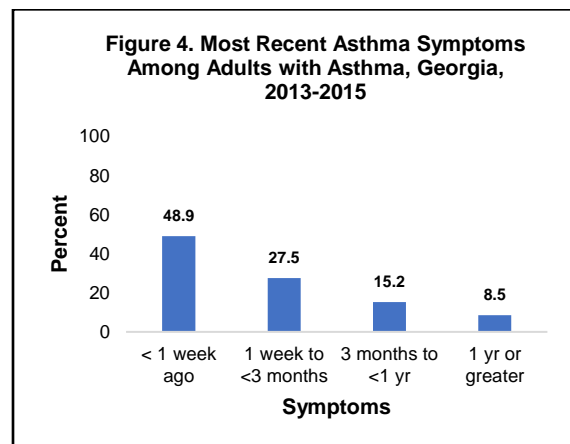
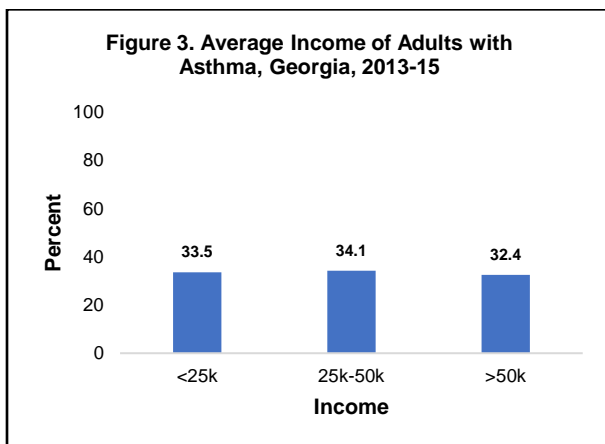
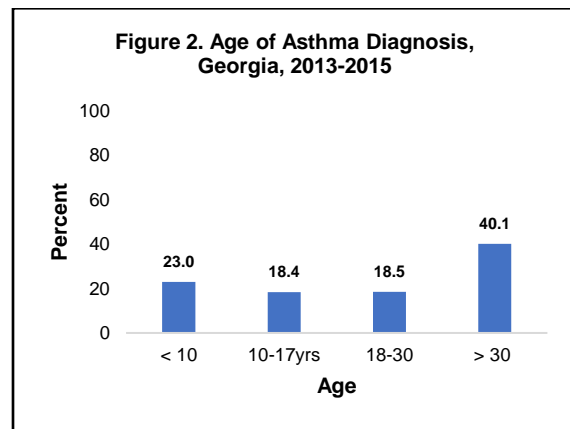
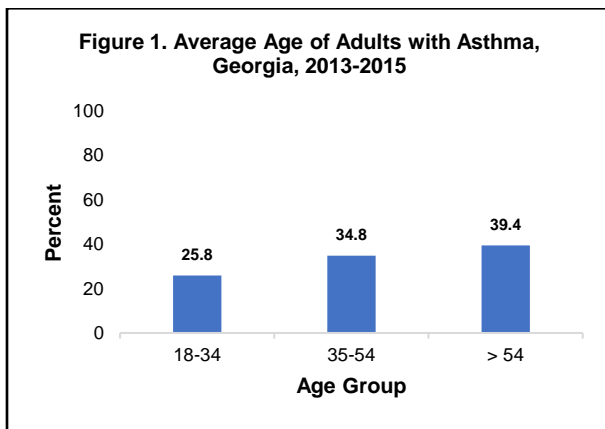
Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Asthma symptoms include wheezing, coughing, chest tightness, and shortness of breath¹.

The Georgia **Asthma Call Back Survey (ACBS)** is conducted in conjunction with the Georgia-Behavioral Risk Factor Surveillance System (GA-BRFSS). BRFSS respondents who report ever being diagnosed with asthma are eligible to participate in the asthma call-back survey, and only individuals who consented to be called back for this survey were contacted.

DEMOGRAPHICS/ SYMPTOMS:

Differences in asthma prevalence existed by demographic characteristics:

- Asthma prevalence was highest among adults 54 years and older (39.4%) (**Figure 1**)
- Forty percent (40%) of patients living with asthma were diagnosed as adults (>30 years old), while 23% received their diagnosis as children (<10 years old) (**Figure 2**)
- Asthma prevalence among adults varied slightly by income in Georgia: (**Figure 3**)
 - Over one-third (33.5%) had incomes less than \$25,000
 - Thirty-four (34%) had incomes between \$25,000- \$50,000
 - More than 32% had incomes over \$50,000
- Nearly half of adults with asthma exhibited symptoms in the week before the asthma call back survey was conducted (**Figure 4**)



HEALTH CARE UTILIZATION (Figure 5):

- More than half (54.8%) of adults with asthma had seen a doctor in the past 12 months for a routine asthma checkup
- More than a third (33.7%) had seen a doctor or other health professional more than once for urgent care treatment of worsening asthma-related symptoms or for an asthma episode
- Nearly 11% had to visit an emergency room
- Over five percent (5.4%) had to stay overnight in a hospital due to asthma-related symptoms

FINANCIAL BURDEN OF CARE (Figure 6):

Adults with chronic conditions like asthma miss recommended appointments and treatment because of the financial burden of care:

- Approximately 20% did not purchase asthma medication when needed due to cost
- Almost 13% of individuals did not see their primary care doctor for an asthma-related illness due to cost
- Approximately 10% of individuals referred to a specialist for asthma care could not go due to cost

COMORBIDITY (Figure 7):

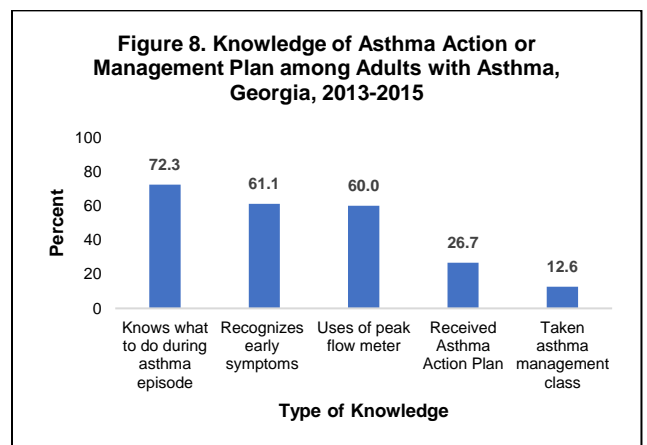
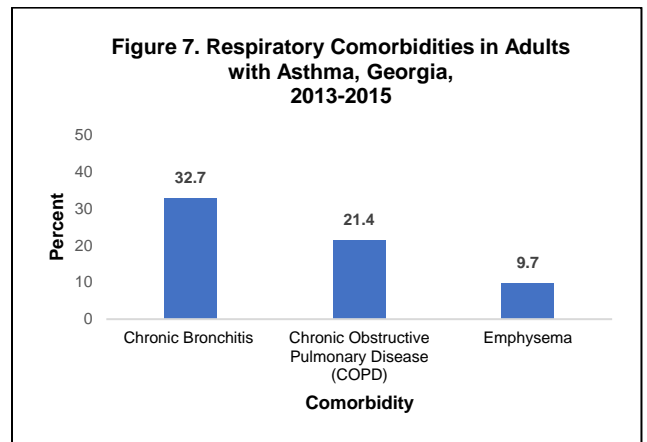
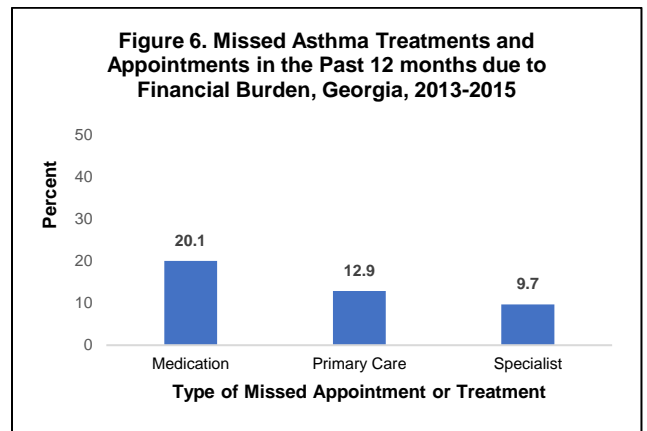
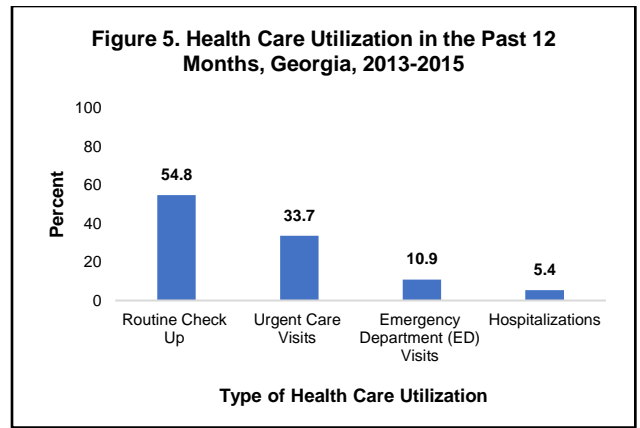
Asthma is often associated with respiratory comorbidities that impact asthma control.

- Nearly 21% of people with asthma had chronic obstructive pulmonary disease (COPD), 9.6% had emphysema and 32.7% had chronic bronchitis

KNOWLEDGE OF ASTHMA ACTION OR MANAGEMENT PLAN (Figure 8):

When asked about their knowledge of an asthma action or management plan:

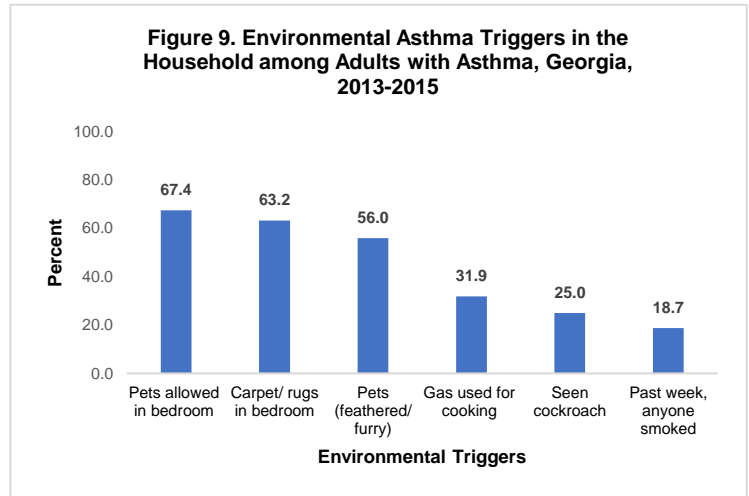
- The majority (72.3%) were instructed on what to do during an episode or attack.
- Sixty-one percent (61%) stated that a doctor or health professional taught them how to recognize the early signs or symptoms
- Over half (60%) were taught how to correctly use a peak flow meter to adjust daily asthma medication.
- Approximately 27% of individuals with asthma had ever been provided an asthma action or management plan
- Only 12.6% of persons with asthma had ever participated in an asthma management class



ENVIRONMENTAL FACTORS

Management of asthma requires attention to environmental exposures both indoors and outdoors. Since Americans spend most of their time indoors, exposure to indoor pollutants pose a threat to those with asthma. The indoor environment contains both pollutants (e.g., particulate matter, nitrogen dioxide, secondhand smoke, and ozone) and allergens from furred pets, dust mites, cockroaches, rodents, and molds. Indoor particulate matter consists of particles generated from indoor sources such as cooking and cleaning activities, and particles that penetrate from the outdoors². In Georgia, these were the most common households triggers among adults with asthma. (**Figure 9**):

- Many allowed pets into their bedroom (67.4%) and had wall-to-wall carpets and/or rugs in their bedroom (63.2%)
- Over half (56.0%) had pets such as dogs, cats, hamsters, birds or other feathered or furry pets spending time indoors
- Nearly thirty-two percent (31.9%) of people utilized gas as an indoor cooking source
- Twenty-five percent (25%) had seen cockroaches in the previous 30 days
- Nearly nineteen percent (18.7%) had someone who used tobacco inside the home within the previous week



MEDICATION USE

An asthma management plan consists of short-acting treatment (relievers), long-acting treatment (controllers), and oral steroids. When Georgians with asthma were asked about their asthma medication use:

- The most common medication was albuterol. Albuterol was taken by both nebulizer (15.2%) and inhaler (19.6%). Albuterol was also identified using the brand names: Proair (7.8%), Ventolin (7.7%), and Proventil (2.8%)
- Few adults with asthma reported using a controller medication. The most common controller medications reported were Symbicort (5.1%), Flovent (3.2%), Dulera (2.2%), and QVAR (1.2%).

DATA SOURCE

a. 2013-2015 Georgia Behavioral Risk Factor Surveillance Survey (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 conjunction with the Centers for Disease Control and Prevention (CDC).

b. 2015 Georgia Asthma Call Back Survey (ACBS).

This survey is conducted approximately two weeks after the BRFSS. BRFSS respondents who report ever being diagnosed with asthma are eligible to participate in the asthma call-back survey. However, call back is made only to individuals who consented to be called back for this special survey. The Asthma Call-Back Survey (ACBS) is funded by the National Asthma Control Program (NACP) in the Asthma and Community Health Branch of the National Center for Environmental Health (NCEH). It is jointly administered by the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Division of Population Health (DPH).

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 every day 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.

Statistical Significance – In this report, estimates were considered statistically significantly different if their 95% confidence intervals did not overlap.

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.

Reliever (“rescue”) medication – short-acting medications that quickly open up the airways and relieve acute symptoms. They help during an asthma attack, but may also be used to prevent asthma attacks, for instance before doing physical exercise. In mild asthma, this treatment is often enough to keep the disease under control⁴.

Controller (“preventer”) medication – long-acting medications that reduce inflammation in the lungs, preventing asthma symptoms over the long term. They usually have steroids in them and are used every day – even if you don't have any acute symptoms⁴.

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>.
2. Diette, G. B., McCormack, M. C., Hansel, N. N., Breyse, P. N., & Matsui, E. C. (2008). Environmental issues in managing asthma. *Respiratory care*, 53(5), 602–617.