COLORECTAL CANCER IN GEORGIA

2007-2011

Georgia Department of Public Health

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Introduction

Figure 1. Anatomy of the Digestive System and Sections of Colon

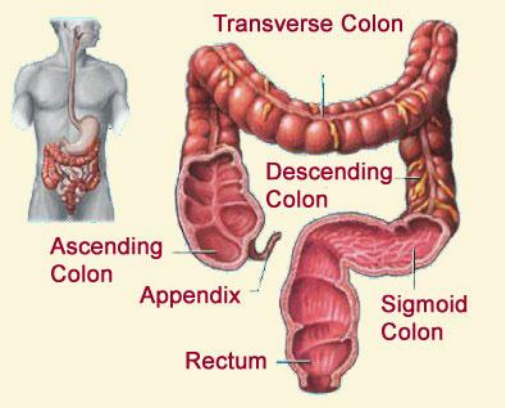
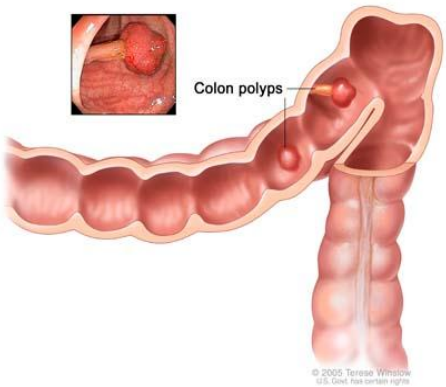


Figure 2. Colon Polyp



Colorectal cancer is a collective term for cancers of the colon and rectum. Since cancers of the colon and rectum share many common features, they are often referred to as colorectal cancer. The colon and rectum are parts of the digestive system. Together, they form a long, muscular tube called the large intestine. The colon is the first four to five feet of the large intestine and the last four to six inches is the rectum (Figure 1).

Once food is chewed and swallowed, it travels through the esophagus to the stomach. In the stomach, it is partially digested and transferred to the small intestine. The small intestine continues digesting the food and absorbs most of the nutrients. The food then travels to the large intestine. The waste then moves from the colon into the rectum and passes out of the body through an opening called the anus during a bowel movement.

The colon consists of 4 sections (Figure 1):

The first section is called the ascending colon. It begins where the small intestine attaches to the colon and extends upward on the right side of the abdomen.

The second section, the transverse colon, runs across the body from right to the left side of the upper abdomen.

The third section, the descending colon, continues downward on the left side.

The fourth section, the sigmoid colon, named because of its S-shape, joins the rectum and the colon.

Colorectal cancers develop slowly over a period of several years. Most of them begin as a non-cancerous polyp, a growth of tissue on the lining of the colon or rectum (Figure 2). Polyps are also known as adenomas. More than 95 percent of colorectal cancers are adenocarcinomas, which arise from cells that line the inside of the colon and the rectum. Removing the polyp early may prevent it from becoming cancerous.

Colorectal cancer affects both men and women and most often occurs in people over 50 years of age. It is the third most commonly diagnosed cancer and cause of cancer death among Georgians. The Georgia Comprehensive Cancer Registry estimates that more than 4,300 new cases of colorectal cancer were diagnosed statewide in 2013 and nearly 1,600 Georgians died from this disease.

Causes and Risk Factors

A risk factor is anything that increases the chance of getting a disease such as cancer. Different cancers have different risk factors. Although it is hard to measure the contribution of a risk factor or know the exact cause of precancerous polyps or cancer, some factors may increase the risk of colorectal cancer development. However, some individuals develop colorectal cancer in the absence of any apparent risk factors.

Lifestyle-Related Risk Factors

Diet: A diet high in red meats (beef, pork, lamb or liver), processed meats and animal fat, or a diet low in calcium, fiber and folate may increase the risk of developing colorectal cancer. Also, cooking meats at high temperatures such as frying, grilling or broiling may increase cancer risk. Diets high in vegetables and fruits have been linked with a decreased risk of colorectal cancer. More research is needed to better understand how diet affects colorectal cancer risk.

Physical inactivity: There is a greater chance of developing colorectal cancer if a person is not physically active. Participating in regular physical activity may reduce this risk. To gain substantial health benefits, the U.S. Department of Health and Human Services recommends 2 hours and 30 minutes of moderate-intensity aerobic physical activity each week (i.e. 30 minutes, five times a week) for adults and muscle-strengthening activities on two or more days a week that work all major muscle groups.

Obesity: People who are obese have an increased risk of developing colorectal cancer and an increased risk of dying of colorectal cancer when compared to people who are considered to be at normal weight.

Smoking: Long term smokers are more likely than non-smokers to develop and die from colorectal cancer.

Alcohol consumption: Heavy use of alcohol may increase the risk of developing colorectal cancer. The American Cancer Society recommends that alcohol use should be limited to no more than two drinks per day for men and one drink per day for women.

Diabetes: People with Type 2 diabetes have an increased risk of developing colorectal cancer. They may also have a less favorable prognosis after diagnosis.

Table 1: Prevalence (%) of Colorectal Cancer Risk Factors, Georgia and the United States, 2011

	Georgia			United States		
Risk Factors	**All** (%)	**Males** (%)	**Females** (%)	**All** (%)	**Males** (%)	**Females** (%)
Obesity	28	26	29	28	28	27
Smoking	21	24	18	21	24	19
Physical Inactivity	27	24	30	26	24	27
Diabetes	10	10	11	10	10	9

According to the 2011 Behavioral Risk Factor Surveillance System (Table1):

- The prevalence of obesity, smoking, physical inactivity and diabetes in Georgia is similar to the United States.
- The prevalence of obesity in Georgia females was greater than in males.
- Georgia males were significantly more likely to be current smokers than females.
- Georgia females were significantly more likely to be physically inactive than males.
- The prevalence of diabetes was similar in Georgia males and females.

Risk Factors You Cannot Change

Age: The risk of developing polyps and colorectal cancer increase with age. More than 90 percent of people diagnosed with colorectal cancer are older than 50 years of age.

Family history: Parents, siblings and children of a person who has had colorectal cancer or adenomatous polyps are more likely to develop colorectal cancer. The risk increases if any first-degree relative is affected at a young age or if more than one first-degree relative is affected. Cancers diagnosed frequently within the same family may also be due to inherited genes, shared exposure to environmental carcinogens, diet or lifestyle factors.

Inherited syndromes: Certain genetic syndromes can increase the risk of developing colorectal cancer. These syndromes cause 5-10 percent of all colorectal cancers. The two most common syndromes are familial adenomatous polyposis (FAP) and hereditary non-polyposis colorectal cancer (HNPCC). People with FAP develop hundreds or thousands of polyps in their colon and rectum in their teens or early adulthood. Cancer may develop in these polyps as early as age 20. Similar to FAP, HNPCC develops when people are relatively young. However, individuals with HNPCC have fewer polyps and develop colorectal cancer at an average age of 44 years.

Racial and ethnic background: African Americans have the highest colorectal cancer incidence and mortality rates of all racial groups in the United States. The reason for this is not yet understood.

Personal history of colorectal cancer or polyps: A person who has had colorectal cancer is more likely to develop new cancers in other areas of the colon or rectum. Some types of polyps, such as adenomatous polyps and hyperplastic polyps, increase the risk of colorectal cancer.

Personal history of bowel disease: Inflammatory Bowel Disease (IBD), which includes Ulcerative Colitis and Crohn's disease, is a condition in which the colon is inflamed over a long period of time. People with IBD have an increased risk of developing colorectal cancer and should be screened for colorectal cancer on a more frequent basis.

Screening

Colorectal screening is the process of looking for cancer in people who have no symptoms of colorectal cancer. Regular screenings for colorectal cancer can find cancer early (when it is most likely to be curable). Screenings can also prevent colorectal cancer by finding polyps and removing them before they turn cancerous. Tests that are used for screening colorectal cancer can be divided into two groups:

Tests that find both colorectal polyps and cancer: These tests look at the structure of the colon to find any abnormal areas.

- ***Sigmoidoscopy:** During this test, a doctor uses a sigmoidoscope to look inside the rectum and the lower section of the colon. The sigmoidoscope is a flexible lighted tube about two feet long with a video camera on the end. Images from the inside of the colon and rectum are displayed on a monitor. The tube is used to detect abnormal growths and if any are found, they are removed for biopsy. The procedure to remove polyps is called polypectomy.

- ***Standard Colonoscopy:** During this test, a colonoscope is used to look inside the entire length of the colon and rectum. The colonoscope is similar to a sigmoidoscope, but is longer. The doctor may also use the colonoscope to assist with the removal of polyps.

- **Double-contrast barium enema (DCBE):** X-ray pictures are taken of the colon and rectum after the patient is given an enema with a barium solution. The barium is used to show an outline of the colon and rectum. This test is rarely used for screening, because it is less sensitive in detecting small polyps and cancers.

- **CT colonography (virtual colonoscopy):** Done every five years based on ACS guidelines, this test is a more advanced form of a computed tomography (CT) scan. The CT scan takes multiple pictures of the colon and then combines all the pictures in order to create a 2-dimensional or 3-dimensional view of the inside of the colon and rectum. This test is considered less invasive than the colonoscopy, however if any abnormalities are found, a colonoscopy may be needed in order to determine if a cancer is present. Currently more studies are being conducted to compare virtual colonoscopy with other screening methods.

*Preferred Tests

Tests that find cancer: These tests involve testing the stool (feces) for signs that cancer may be present. These types of tests are considered to be less invasive and easier.

- ***High-sensitivity fecal occult blood test (FOBT):** Damaged blood vessels from polyps or cancers may release a small amount of blood into the feces. The FOBT detects blood in stool that may not be visible. Before the test, certain medications and foods cannot be consumed because they may interfere with the test. The screening test is given as a take home kit and stool samples are taken and returned to a doctor's office for testing. If the test detects blood, a colonoscopy is performed to determine the source. Other conditions such as hemorrhoids or ulcers may also cause blood to be detected.

- ***Fecal immunochemical test (FIT):** This test is also used to detect blood in the stool. The FIT is also performed at home but may be easier to use since there are no medication or dietary restrictions that are required to be followed before taking the test (unlike the FOBT). After the stool samples have been collected, the samples are returned to the doctor's office for testing.

- **Cologuard®:** This test is also used to detect blood in the stool and nine DNA biomarkers from three genes associated with colorectal cancer and precancerous advanced adenomas. Colorectal cancer cells may contain DNA mutations in certain genes. These genes can be detected in the stool. People who test positive with this test should undergo a colonoscopy to confirm results. This test has not been incorporated into clinical practice guidelines and is not yet recommended by U.S. Preventive Service Task Force. This test is recommended every three years based on the ACS guidelines.

*Preferred Test

Signs/Symptoms

In the early stages of colorectal cancer, individuals may not have any symptoms. Symptoms usually appear when the disease has advanced. Signs and symptoms of colorectal cancer include:

- A change in bowel habits such as diarrhea, constipation, or narrowing of the stool that lasts for more than a few days
- A feeling that the bowel does not empty completely
- Rectal bleeding or blood in the stool
- Persistent cramping or abdominal pain
- Weakness and fatigue
- Unexplained weight loss

Other conditions such as hemorrhoids and inflammatory bowel disease (IBD) may also have symptoms that mimic colorectal cancer. If you have any of the above symptoms, it is very important to talk to your doctor because it could be a sign of a serious medical condition such as colorectal cancer.

The National Cancer Institute Recommendations for Colorectal Cancer Early Detection

The **National Cancer Institute (NCI)** recommends that people at average risk for colorectal cancer should begin screening at age 50 and continue until age 75 as long as their results are negative.

Preferred screening tests include:

Tests that find polyps and cancer

- Sigmoidoscopy- every five years*
- Colonoscopy- every 10 years

Tests that mainly find cancer

- Fecal occult blood test (FOBT)-test every year+
- Fecal immunochemical test (FIT)-test every year+

Colorectal Cancer Screening guidelines are recommended by the U.S. Preventive Services Task Force (USPSTF) and are used by NCI, BRFSS, and Healthy People 2020.

*** The USPSTF recommends sigmoidoscopy every five years along with FOBT every three years for people at average risk who have had negative test results.**

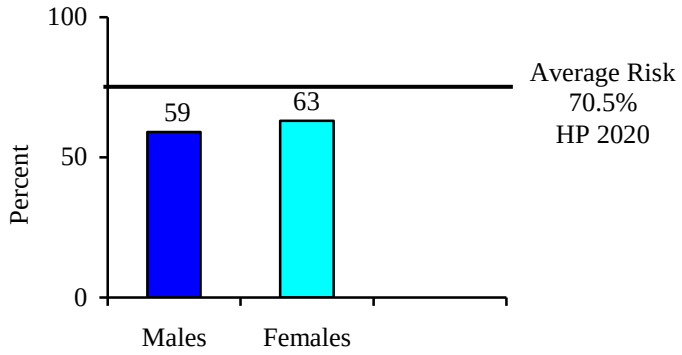
+ If FOBT is the only type of colorectal cancer screening test performed, the USPSTF recommends yearly testing.

http://www.cancer.gov

According to the Georgia Behavioral Risk Factor Surveillance System (BRFSS) in 2011:

- The percent of colorectal cancer screening among adults who had FOBT in the last year /or sigmoidoscopy in the last five years or colonoscopy in the last 10 years, for women 50-75 years of age was higher when compared to men. (Figure 3) (61 percent of Georgians had colorectal screening in 2011.)
- There was no significant difference in colorectal cancer screening by sex and race/ethnicity. (Figure 4)
- The Healthy People 2020 target for colorectal screening among adults 50-75 years of age was 70.5 percent. While Georgia colorectal cancer screening prevalence was lower than the Healthy People 2020 Objective of 70.5 percent for adults 50-75 years of age.

Figure 3. Percent of Colorectal Screening* Among Adults 50-75 Years of Age by Sex, Georgia, 2011



*The Colorectal Cancer Screening Recommendation is defined as the percent of adults who had a FOBT in the last year, and/or sigmoidoscopy in the last five years, and/or colonoscopy in the last 10 years.

Figure 4. Percent of Colorectal Screening Among Adults 50-75 Years of Age, by Race/Ethnicity, Georgia, 2011

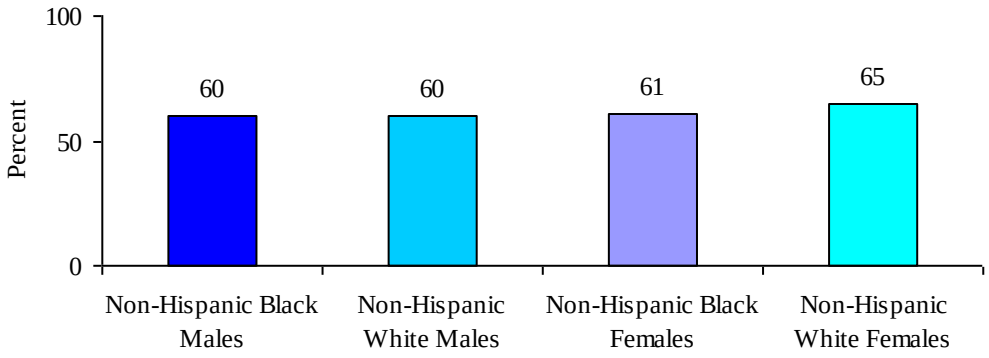
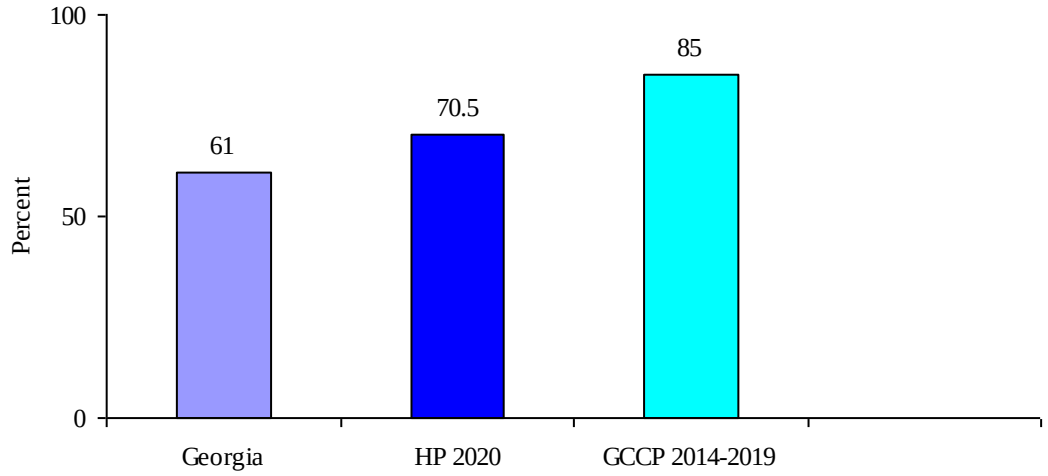


Figure 5. Percent of Colorectal Screening* Among Adults 50-75 Years, Georgia, 2011, Percent of Colorectal Screening* Among Adults 50-75 Years Healthy People 2020 Goal, and Percent of Colorectal Screening* Among Adults Over Age 50 Georgia Cancer Plan 2014-2019



The overall Georgia colorectal cancer screening prevalence (61 percent) was lower than the Healthy People 2020 objective of 70.5 percent for adults age 50-75 years at average risk, as well as lower than the Georgia goal of 85 percent for adults over age 50 by year 2019, based on the Georgia Cancer Plan 2014-2019.

Incidence and Mortality

Colorectal cancer is the third most commonly diagnosed cancer and cause of cancer deaths among males and females in Georgia.

Table 2: Georgia Leading Causes of Cancer Incidence (2007-2011) and Mortality (2006-2011*)

Top 5 Causes of Cancer Incidence		Top 5 Causes of Cancer Mortality	
Males	**Females**	**Males**	**Females**
Prostate	Breast	Lung & bronchus	Lung & Bronchus
Lung & Bronchus	Lung & Bronchus	Prostate	Breast
Colorectal	***Colorectal***	***Colorectal***	***Colorectal***
Bladder	Uterus	Pancreas	Pancreas
Melanoma	Melanoma	Leukemia	Ovary

*Because of data quality issues, 2009 mortality data are not used for analysis.

From 2007-2011 in Georgia:

- The overall age-adjusted colorectal cancer incidence rate in Georgia was 43 per 100,000 in males and females combined. Males were 34 percent more likely to be diagnosed with colorectal cancer than females (age-adjusted rate 51/100,000 vs. 38/100,000).
- The overall age-adjusted colorectal cancer mortality rate in Georgia was 16 per 100,000 in males and females combined.
- Males were 43 percent more likely to die of colorectal cancer than females (age-adjusted rate 20/100,000 vs. 14/100,000).
- Georgia colorectal cancer incidence and mortality rates were similar to the United States (U.S.) as a whole.
- Non-Hispanic (NH) black males were more likely than NH white males to be diagnosed with colorectal cancer in Georgia and the U.S.
- Similarly, NH black females were more likely than NH white females to be diagnosed with this disease
- Black males were more likely than white males to die of colorectal cancer in Georgia and the U.S.
- Similarly, black females were more likely than white females to die of this disease in Georgia and the U.S.

Figure 6. Age-adjusted Colorectal Cancer Incidence Rates by Sex and Race/Ethnicity, Georgia and the U.S., 2007-2011

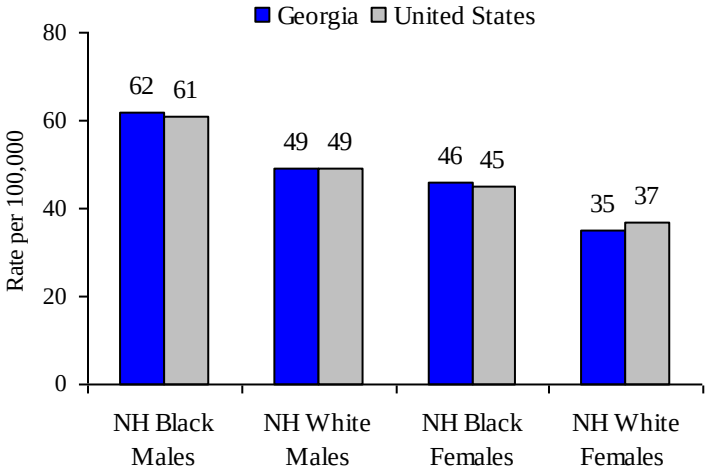
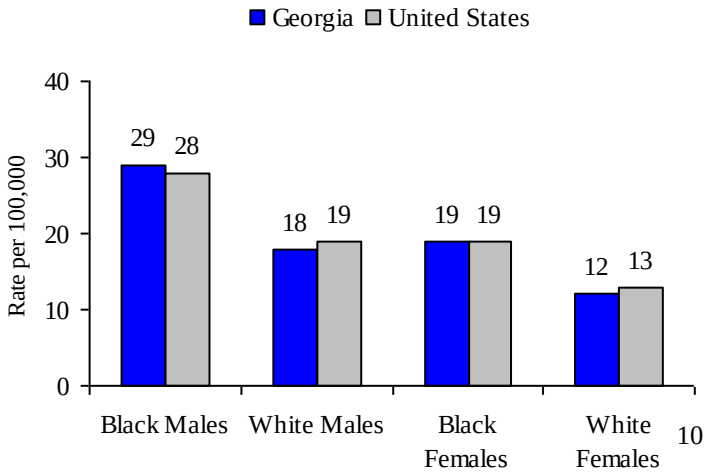


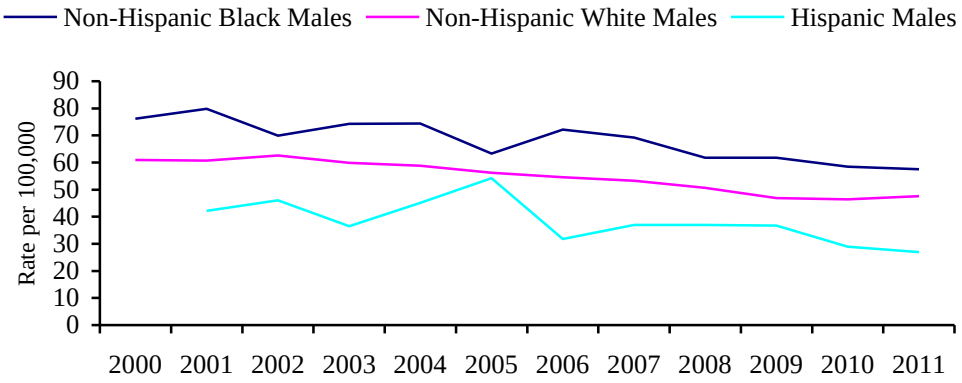
Figure 7. Age-adjusted Colorectal Cancer Mortality Rates by Sex and Race, Georgia 2006-2011* and the U.S., 2007-2011



*Because of data quality issues, 2009 mortality data are not used for analysis.

Colorectal Incidence Trends

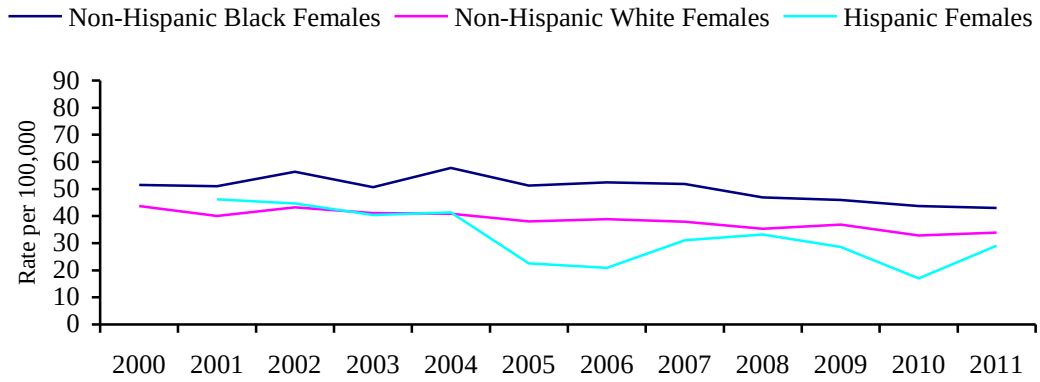
Figure 8. Age-adjusted Colorectal Cancer Incidence Rates Among Males by Race and Ethnicity, Georgia (2000-2011)



During 2000-2011:

- NH white males generally had lower incidence rates than NH black males.
- Among NH black males, incidence rates declined by 2.7 percent per year during 2000 to 2011.
- Among NH white males, incidence rates increased by 1.4 percent per year during 2000 to 2002, and significantly declined by 3.4 percent per year from 2002 to 2011.
- Among Hispanic males, incidence rates declined by 4.6 percent per year during 2001 to 2011.

Figure 9. Age-adjusted Colorectal Cancer Incidence Rates Among Females by Race and Ethnicity, Georgia (2000-2011)

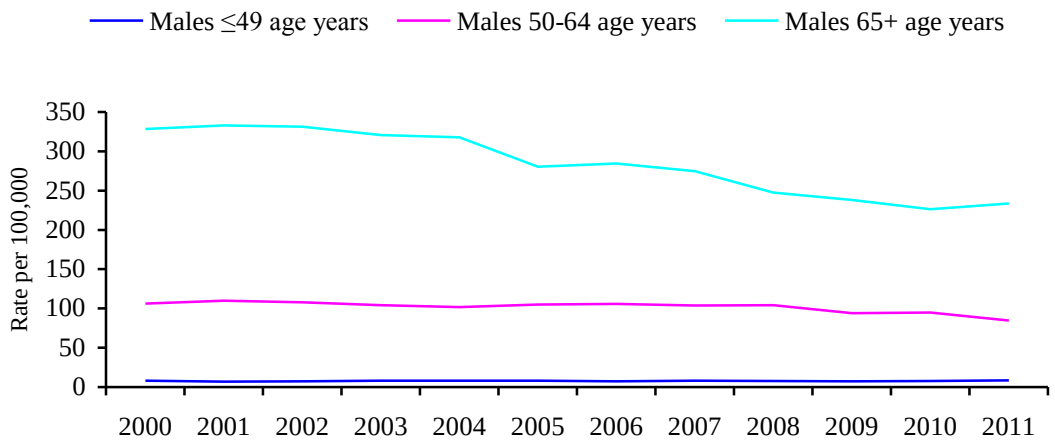


During 2000-2011:

- NH black females had generally higher incidence rates than NH white females.
- Among NH white females, incidence rates declined by 2.3 percent per year during 2000 to 2011.
- Among NH black females, incidence rates increased by 2.2 percent per year during 2000 to 2004, and significantly declined by 3.7 percent per year from 2004 to 2011.
- Among Hispanic females, incidence rates fluctuated due to small numbers. Overall incidence rates declined by 3.2 percent during 2004 to 2011. Incidence rates declined by 5.8 percent per year during 2001 to 2011.

Colorectal Incidence Trends

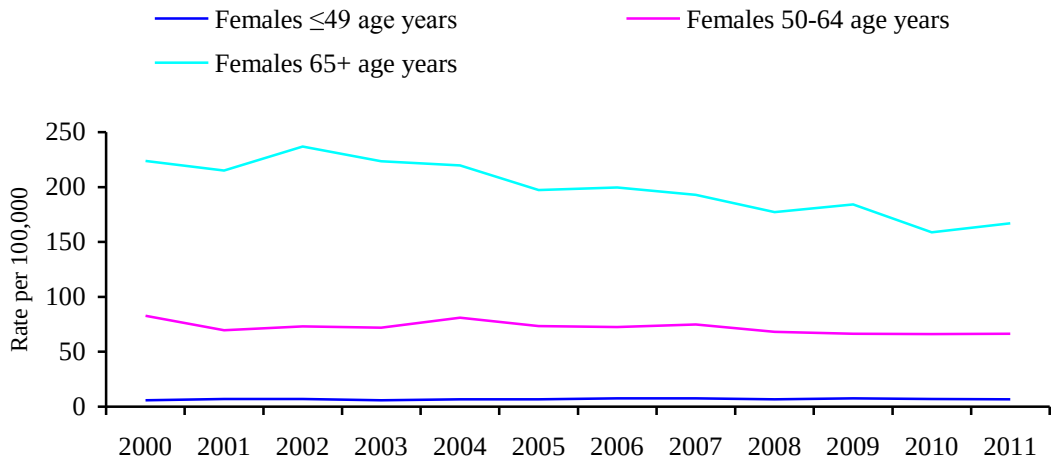
Figure 10. Age-adjusted Colorectal Cancer Incidence Rates Among Males by Age, Georgia (2000-2011)



*The U.S. Prevention Task Force colorectal cancer screening recommendation was implemented in December 1995.

- Among adult males ≤49 years of age, incidence rates increased by 0.5 percent per year from 2000 (8/100,000) to 2011 (9/100,000).
- Among adult males 50-64 years of age, incidence rates declined by 0.5 percent per year from 2000 (106/100,000) to 2008 (104/100,000) and decreased by 5.9 percent per year from 2008 to 2011 (85/100,000).
- Among adult males 65+ years of age, incidence rates declined by 3.9 percent per year from 2000 (328/100,000) to 2011 (234/100,000).

Figure 11. Age-adjusted Colorectal Cancer Incidence Rates Among Females by Age, Georgia (2000-2011)

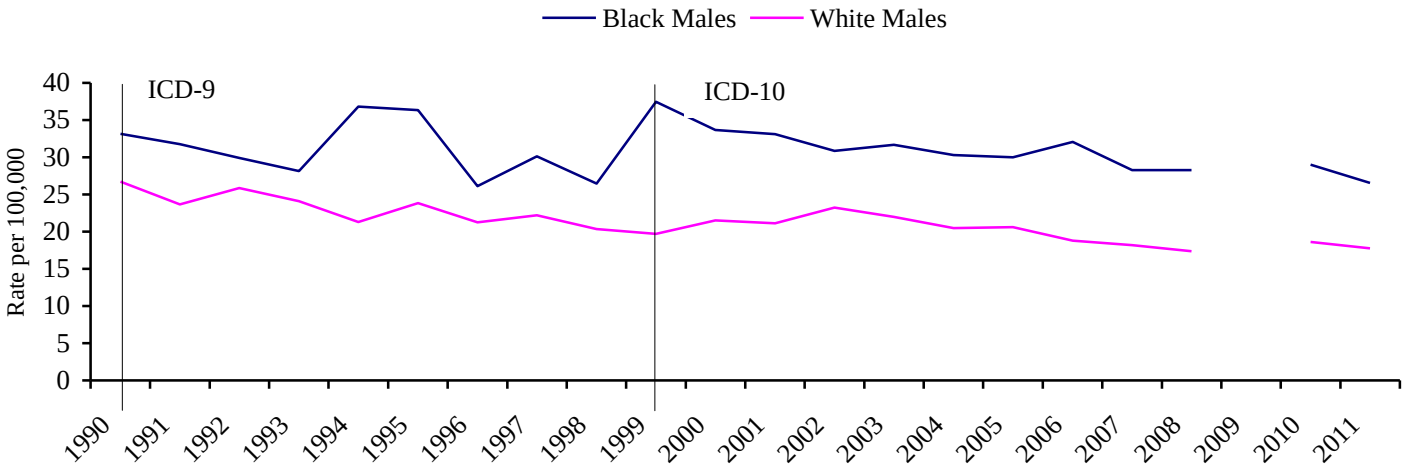


*The U.S. Prevention Task Force colorectal cancer screening recommendation was implemented in December 1995.

- Among adult females ≤49 years of age, incidence rates increased by 1 percent per year during 2000 (6/100,000) to 2011 (7/100,000).
- Among adult females 50-64 years of age, incidence rates declined by 1.5 percent per year during 2000 (83/100,000) to 2011 (67/100,000).
- Among adult females 65+ years of age, incidence rates declined by 3.2 percent per year during 2000 (224/100,000) to 2011 (167/100,000).

Mortality Trends

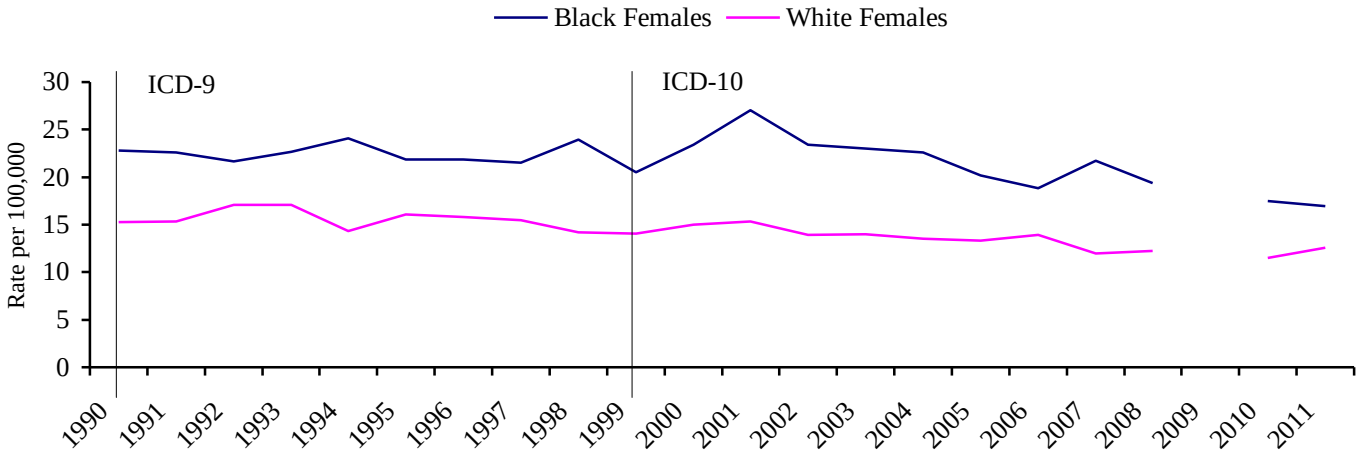
Figure 12. Age-adjusted Colorectal Cancer Mortality Rates Among Males by Race, Georgia (1990-2011*)



*Because of data quality issues, 2009 mortality data are not used for analysis.
**The U.S. Prevention Task Force colorectal cancer screening recommendation was implemented in December 1995.

- White males generally had lower mortality rates than black males.
- Among black males, mortality rates fluctuated, however there was an overall decrease of 0.5 percent from 1990 to 2008. Rates appeared to level off in 2010 and 2011.
- Among white males, mortality rates declined 2.9 percent per year from 1990 to 1999. From 1999 to 2002 mortality rates increased by 4.6 percent per year. From 2002 to 2008 mortality rates declined by 4.5 percent per year, but appeared to level off in 2010 and 2011.

Figure 13. Age-adjusted Colorectal Cancer Mortality Rates Among Females by Race, Georgia (1990-2011*)

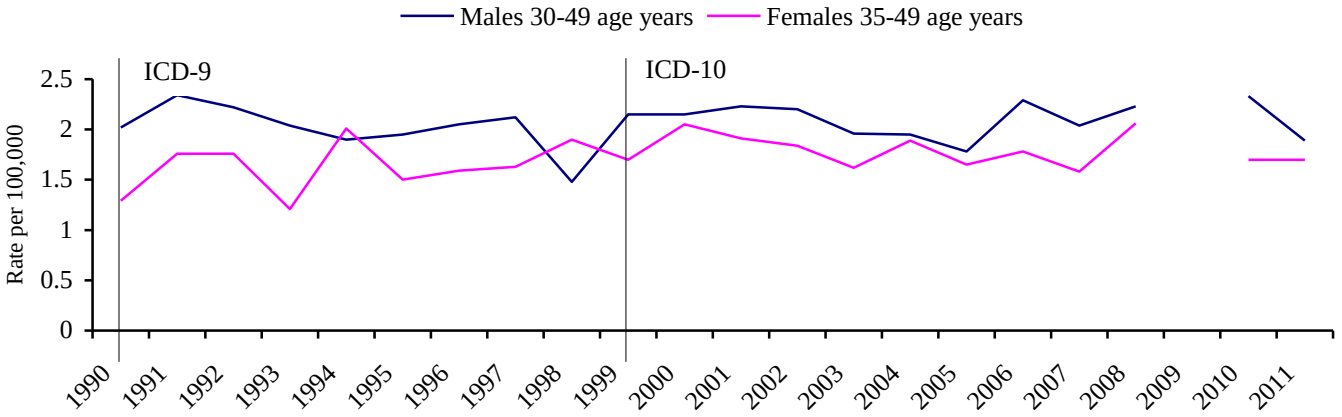


*Because of data quality issues, 2009 mortality data are not used for analysis.
**The U.S. Prevention Task Force colorectal cancer screening recommendation was implemented in December 1995.

- Black females had generally higher mortality rates than white females.
- Among white females, mortality rates declined by 1.4 percent per year from 1990 to 2008 but appeared to level off in 2010 and 2011.
- Among black females, mortality rates declined by 0.5 percent per year during 1990 to 2008 and continued to decline in 2010 and 2011.

Mortality Trends

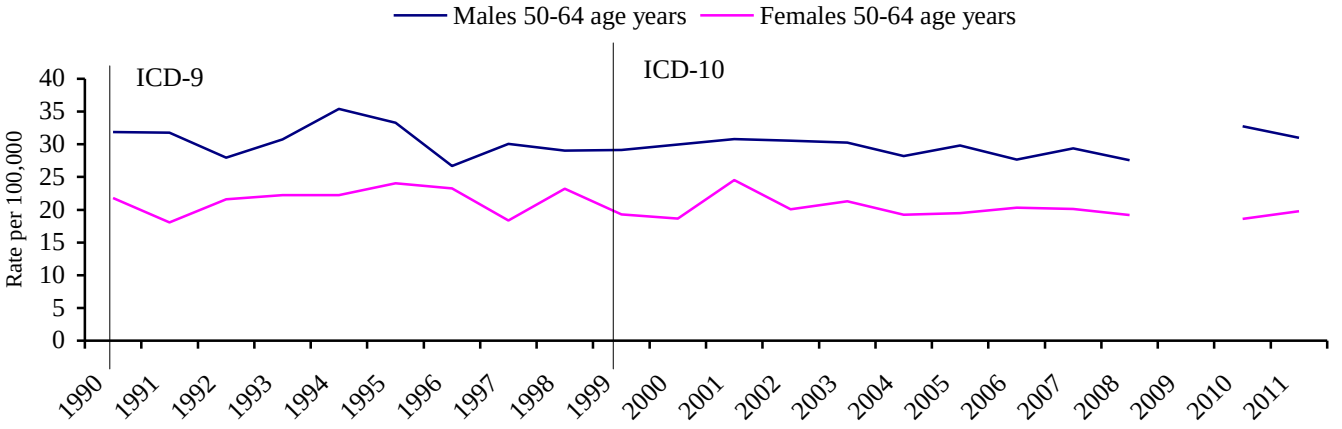
Figure 14. Age-adjusted Colorectal Cancer Mortality Rates Among Adult Males 30-49 Years of Age, and Adult Females 35-49 Years of Age, Georgia (1990-2011*)



*Because of data quality issues, 2009 mortality data are not used for analysis.

- Among adult males 30-49 years of age, mortality rates increased by 0.1 percent per year during 1990 to 2008 but appeared to level off in 2010 and 2011.
- Among adult females 35-49 years of age, mortality rates increased by 0.9 percent per year during 1990 to 2008 but appeared to level off in 2010 and 2011.

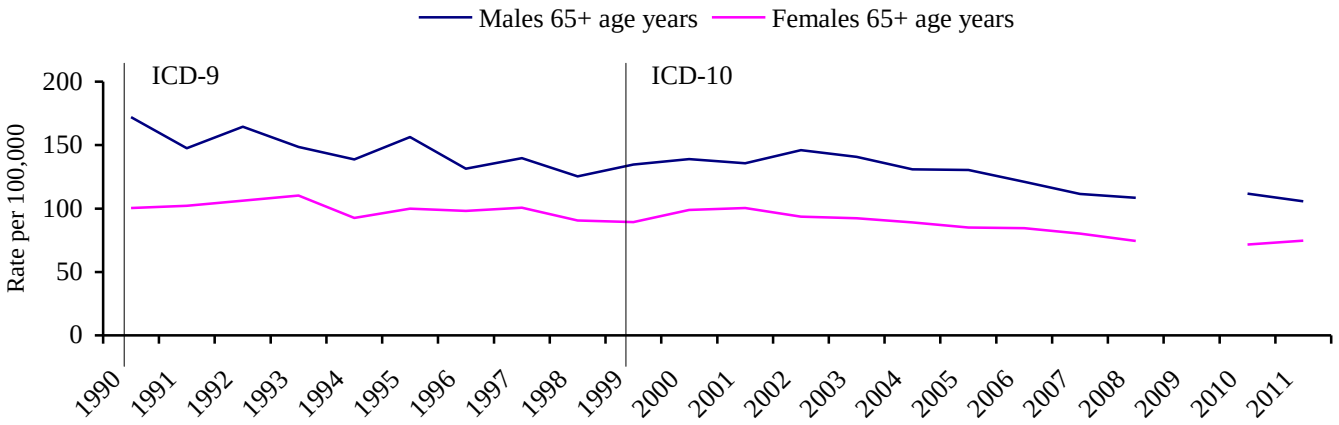
Figure 15. Age-adjusted Colorectal Cancer Mortality Rates Among Adults 50-64 Years of Age, by Sex, Georgia (1990-2011*)



*Because of data quality issues, 2009 mortality data are not used for analysis.

- Among adult males 50-64 years of age, mortality rates declined by 0.6 percent per year during 1990 to 2008 but appeared to level off in 2010 and 2011.
- Among adult females 50-64 years of age, mortality rates declined by 0.6 percent per year during 1990 to 2008 and this trend appeared to continue through 2011.

Figure 16. Age-adjusted Colorectal Cancer Mortality Rates Among Adults 65+ Years of Age, by Sex, Georgia (1990-2011*)



*Because of data quality issues, 2009 mortality data are not used for analysis.

- Among adult males 65+ years of age, mortality rates declined by 3.0 percent per year during 1990 to1998. Mortality rates increased by 2.9 percent per year during 1998-2002. Mortality rates declined by 4.8 percent per year from 2002 to 2008. This trend appeared to continue through 2011.
- Among adult females 65+ years of age, mortality rates declined by 1.5 percent per year during 1990 to 2008 and this trend appeared to continue through 2011.

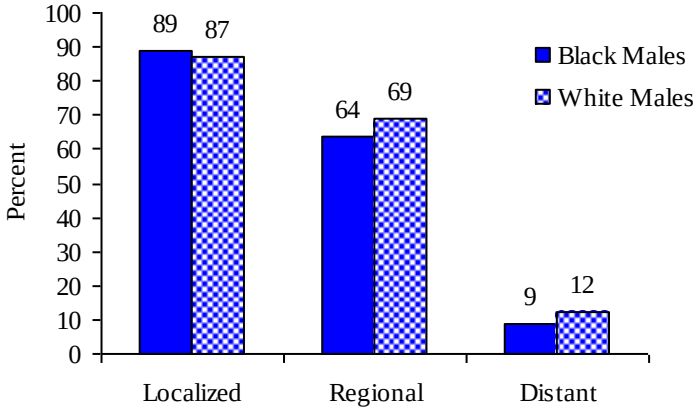
Survival

Staging is a standardized way to summarize information about how far a cancer has spread and helps determine a treatment plan. The TNM staging system is used at hospitals to guide treatment options, however, many central cancer registries, such as the Georgia Comprehensive Cancer Registry and the National Program of Cancer Registries (NPCR) use SEER summary stage for surveillance purposes, categorizing cancer into these groups:

Localized: Cancer that is confined to the organ where it started.
Regional: Cancer that has spread from its primary site to nearby lymph nodes or organs.
Distant: Cancer that has spread from its primary site to distant organs or lymph nodes. Also referred to as distant metastasis.

- During 2004-2010, the overall five-year colorectal cancer survival rate among Georgians was 64 percent. [If the cancer was discovered at a local stage, the survival rate is 88 percent, however the survival rate is only 68 percent when discovered at a regional stage and 12 percent when discovered at a distant stage.]
- Early detection saves lives. Individuals diagnosed at an early stage (localized) have a better chance of surviving five years after diagnosis than those diagnosed at a later stage (Figures 17 and 18).

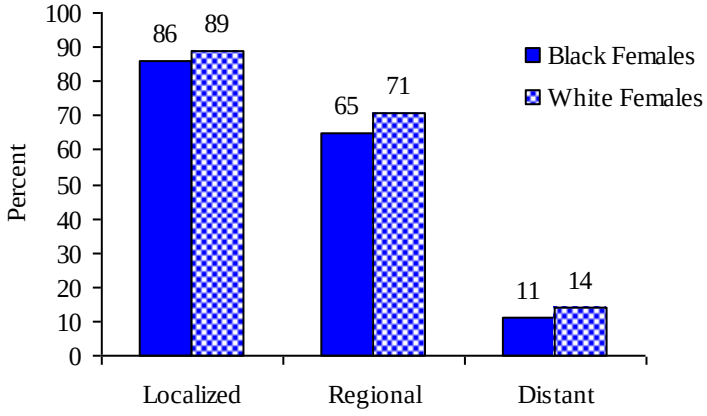
Figure 17. Colorectal Cancer Five-Year Survival Rates by Race and Stage, Males, Georgia, 2004-2010



		Localized	Regional	Distant
% of tumors found at this stage*	Black Males	39%	33%	25%
	White Males	41%	37%	20%

*Unstaged tumors are not shown.

Figure 18. Colorectal Cancer Five-Year Survival Rates by Race and Stage, Females, Georgia, 2004-2010



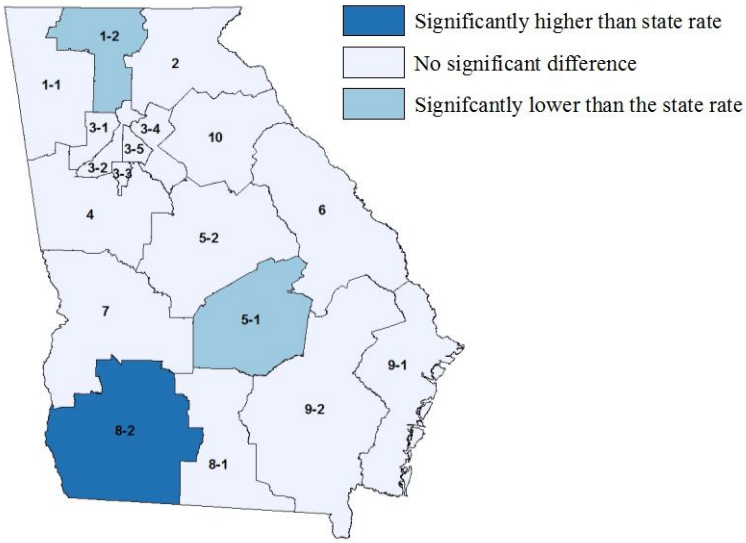
		Localized	Regional	Distant
% of tumors found at this stage*	Black Females	40%	32%	24%
	White Females	40%	38%	19%

*Unstaged tumors are not shown.

- During 2004-2010, 53 percent of colorectal cancers were diagnosed at a late stage (regional and distant while only 43 percent were diagnosed early (local).
- The five-year survival rates for white males (64 percent) for all stages was higher than those for black males (59 percent)
- The five-year survival rates for white females (66 percent) for all stages was higher than those for black females (60 percent).
- However, the five-year survival rate for black males (89 percent) at the localized stage was higher than white males (87 percent) (Figure 17).
- Five-year survival rates dropped significantly for individuals when diagnosed at the distant stage.

Incidence and Mortality, By Geographic Location

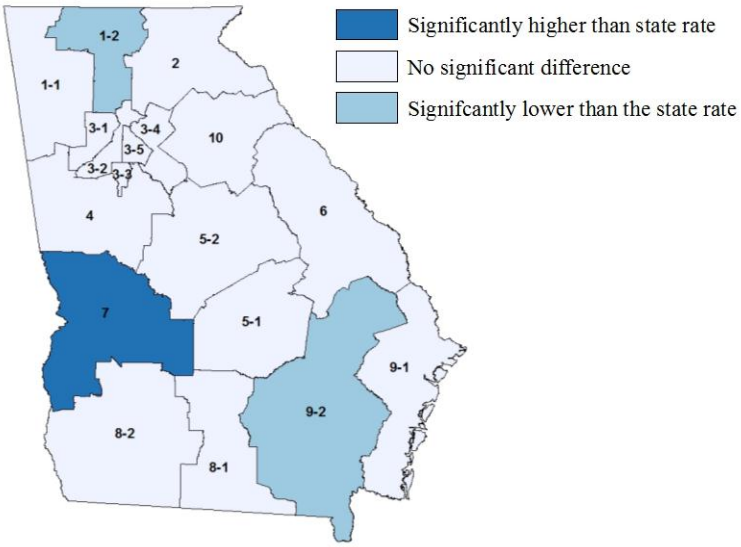
Figure 19. Age-adjusted Colorectal Cancer Incidence Rates Among Males, by Public Health District, Georgia, 2007-2011



According to the Georgia Comprehensive Cancer Registry, during 2007-2011:

- The Southwest (8-2) Public Health District had a significantly higher colorectal cancer incidence rate among males than the state as a whole.
- The North Georgia (1-2) and South Central (5-1) Public Health Districts had significantly lower colorectal cancer incidence rates among males than the state as a whole.

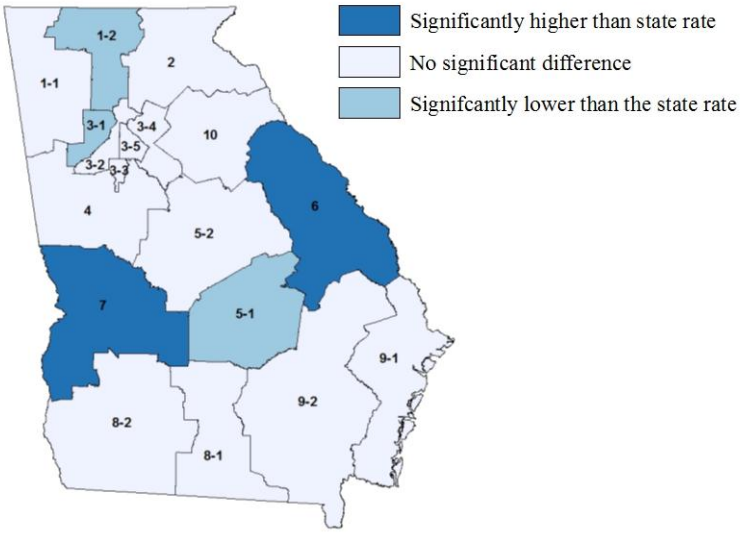
Figure 20. Age-adjusted Colorectal Cancer Incidence Rates Among Females, by Public Health District, Georgia, 2007-2011



According to the Georgia Comprehensive Cancer Registry, during 2007-2011:

- The West Central (7) Public Health District had a significantly higher colorectal cancer incidence rate among females than the state as a whole.
- The North Georgia (1-2) and Southeast (9-2) Public Health Districts had significantly lower colorectal cancer incidence rates among females than the state as a whole.

Figure 21. Age-adjusted Colorectal Cancer Mortality Rates Among Males, by Public Health District, Georgia, 2006-2011*

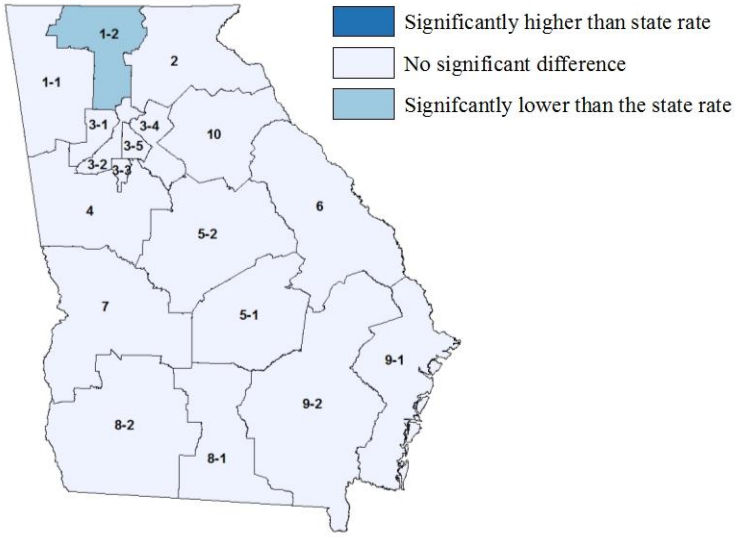


*Note: 2009 death data were excluded from the analysis due to data reliability

According to the Georgia Vital Records Data, during 2006-2011:

- The East Central (6) and West Central (7) Public Health Districts had significantly higher colorectal cancer death rates among males than the state as a whole.
- The North Georgia (1-2), Cobb-Douglas (3-1), and South Central (5-1) Public Health Districts had significantly lower colorectal cancer death rates among males than the state as a whole.

Figure 22. Age-adjusted Colorectal Cancer Mortality Rates Among Females, by Public Health District, Georgia, 2006-2011*

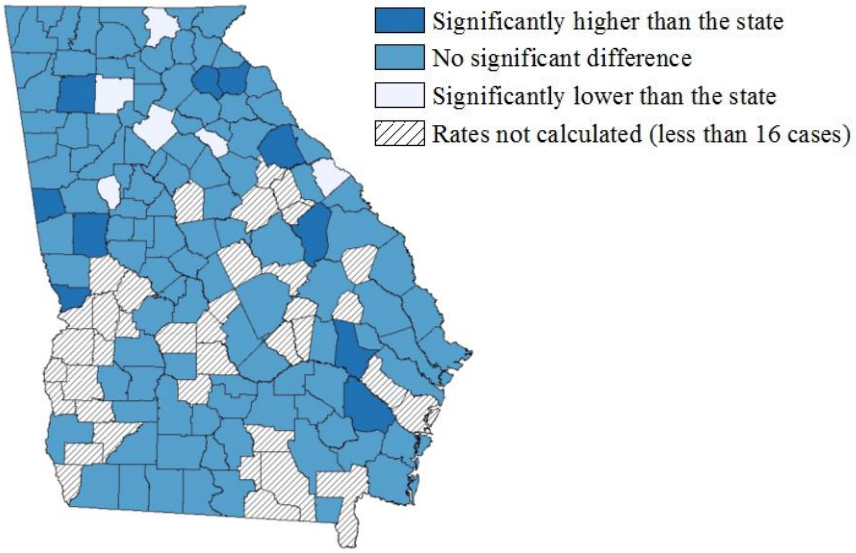


*Note: 2009 death data were excluded from the analysis due to data reliability

According to the Georgia Vital Records Data, during 2006-2011:

- No Public Health Districts had significantly higher colorectal cancer death rates among females than the state as a whole.
- The North Georgia (1-2) Public Health District had a significantly lower colorectal cancer death rate among females than the state as a whole.

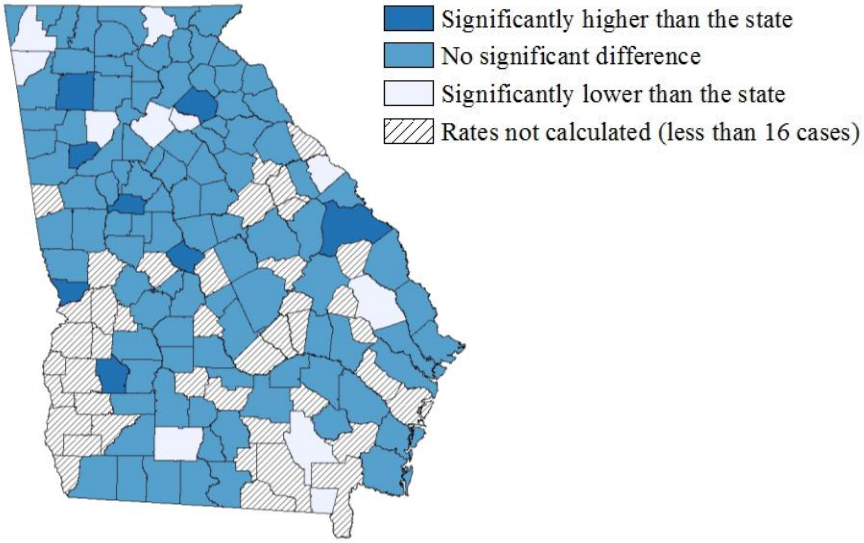
Figure 23. Age-adjusted Colorectal Cancer Incidence Rates Among Males, by County, Georgia, 2007-2011



According to the Georgia Comprehensive Cancer Registry, during 2007-2011:

- Wilkes, Heard, Jefferson, Franklin, Banks, Tattnall, Meriwether, Wayne, Bartow and Muscogee Counties had significantly higher colorectal cancer incidence rate among males than the state as a whole.
- Gwinnett, Fayette, Columbia, Cherokee, Union and Oconee Counties had significantly lower colorectal cancer incidence rates among males than the state as a whole.

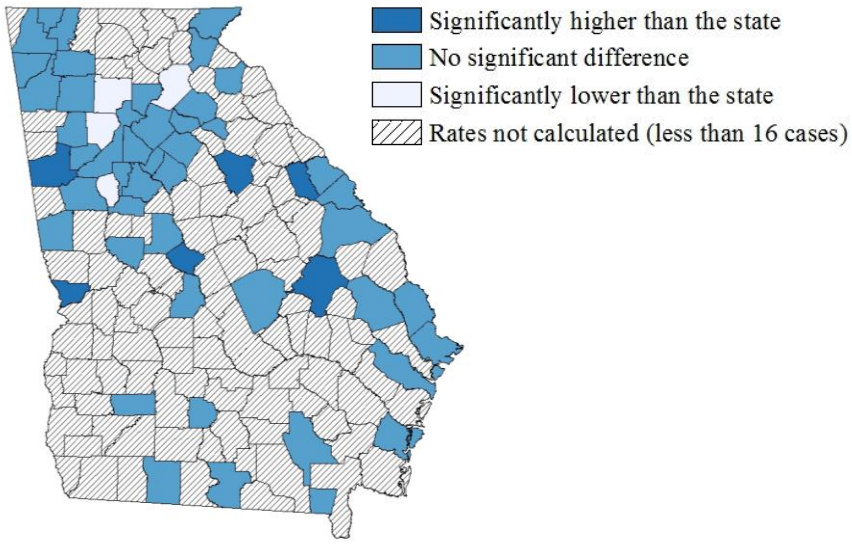
Figure 24. Age-adjusted Colorectal Cancer Incidence Rates Among Females, by County, Georgia, 2007-2011



According to the Georgia Comprehensive Cancer Registry, during 2007-2011:

- Terrell, Spalding, Muscogee, Jackson, Douglas, Burke, Bibb and Bartow Counties had significantly higher colorectal cancer incidence rate among females than the state as a whole.
- Ware, Walker, Union, Gwinnett, Columbia, Colquitt, Cobb, Chattooga, Bulloch and Barrow Counties had significantly lower colorectal cancer incidence rates among females than the state as a whole.

Figure 25. Age-adjusted Colorectal Cancer Mortality Rates Among Males, by County, Georgia, 2006-2011*

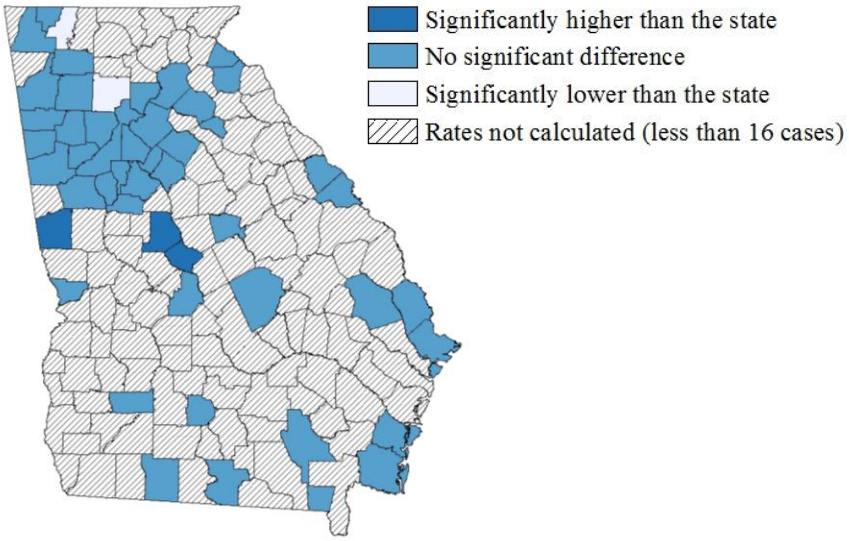


*Note: 2009 death data were excluded from the analysis due to data reliability

According to the Georgia Vital Records Data, during 2006-2011:

- Greene, McDuffie, Emanuel, Bibb, Carroll and Muscogee Counties had significantly higher colorectal cancer incidence rates among males than the state as a whole.
- Cobb, Hall, Cherokee and Fayette Counties had significantly lower colorectal cancer incidence rates among males than the state as a whole.

Figure 26. Age-adjusted Colorectal Cancer Mortality Rates Among Females, by County, Georgia, 2006-2011*

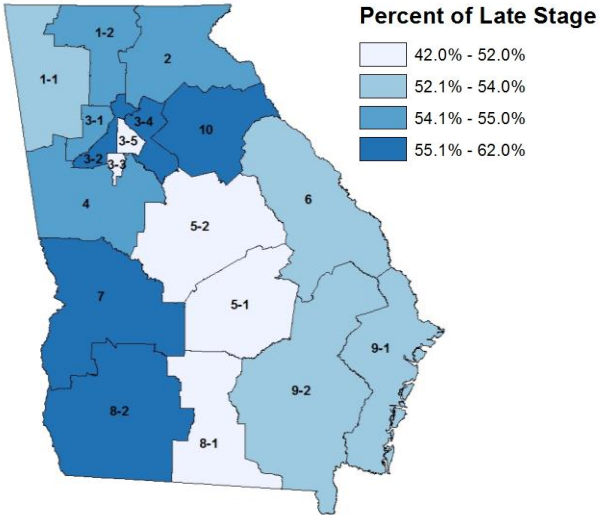


*Note: 2009 death data were excluded from the analysis due to data reliability

According to the Georgia Vital Records Data, during 2006-2011:

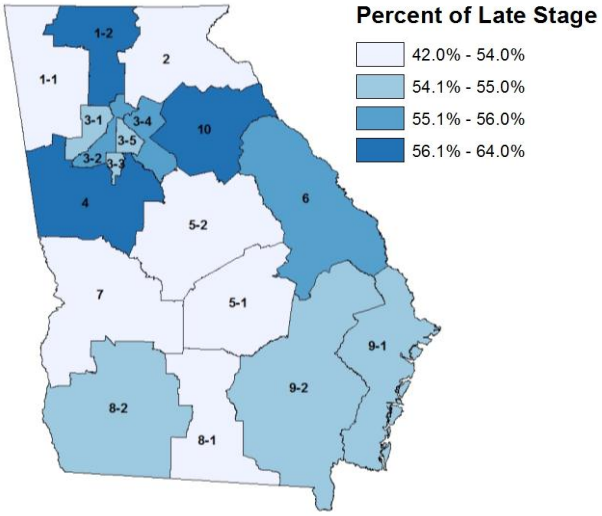
- Troup, Monroe and Bibb Counties had significantly higher colorectal cancer incidence rates among females than the state as a whole.
- Cherokee and Whitfield counties had significantly lower colorectal cancer incidence rates among females than the state as a whole.

Figure 27. Percent of Late Stage* Colorectal Cancer Incidence by Public Health District, Males 50-64 Years of Age, Georgia, 2007-2011



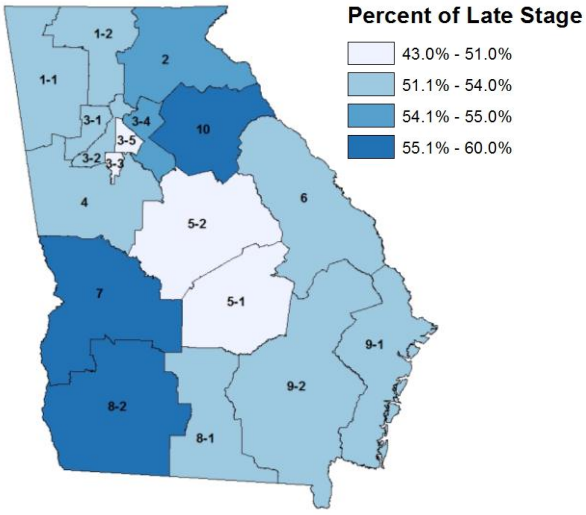
*Late Stage is defined as Regional or Distant at time of diagnosis.

Figure 28. Percent of Late Stage* Colorectal Cancer Incidence by Public Health District, Non-Hispanic Black Males 50-64 Years of Age, Georgia, 2007-2011



*Late Stage is defined as Regional or Distant at time of diagnosis.

Figure 29. Percent of Late Stage* Colorectal Cancer Incidence by Public Health District, Non-Hispanic White Males 50-64 Years of Age, Georgia, 2007-2011



*Late Stage is defined as Regional or Distant at time of diagnosis.

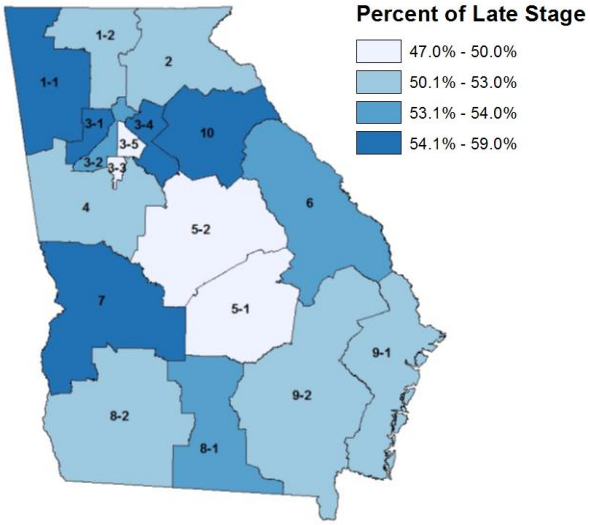
According to Figures 27, 28 and 29, during 2007-2011 in Georgia:

- Fulton (3-2), East Metro (3-4), West Central (7), Southwest (8-2) and Northeast (10) Public Health Districts had the highest percentage of adult males age 50-64 who were diagnosed at late stage.
- Clayton (3-3), DeKalb (3-5), South Central (5-1), North Central (5-2) and South (8-1) Public Health Districts had the lowest percentage of adult males age 50-64 who were diagnosed at late stage.

- North Georgia (1-2), LaGrange (4) and Northeast (10) Public Health Districts had the highest percentage of black adult males age 50-64 who were diagnosed at late stage.
- Northwest (1-1), North (2), South Central (5-1), North Central (5-2), West Central (7) and South (8-1) Public Health Districts had the lowest percentage of black adult males age 50-64 who were diagnosed at late stage.

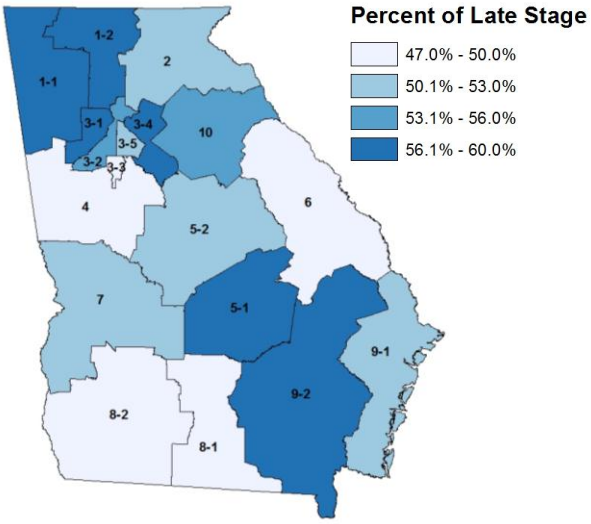
- West Central (7), Southwest (8-2) and Northeast (10) Public Health Districts had the highest percentage of white adult males age 50-64 who were diagnosed at late stage.
- Clayton (3-3), DeKalb (3-5), South Central (5-1) and North Central (5-2) Public Health Districts had the lowest percentage of white adult males age 50-64 who were diagnosed at late stage.

Figure 30. Percent of Late Stage* Colorectal Cancer Incidence by Public Health District, Females 50-64 Years of Age, Georgia, 2007-2011



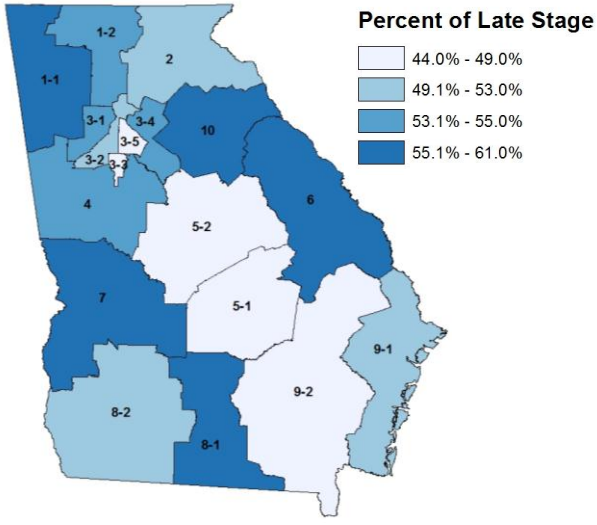
*Late Stage is defined as Regional or Distant at time of diagnosis.

Figure 31. Percent of Late Stage* Colorectal Cancer Incidence by Public Health District, Non-Hispanic Black Females 50-64 Years of Age, Georgia, 2007-2011



*Late Stage is defined as Regional or Distant at time of diagnosis.

Figure 32. Percent of Late Stage* Colorectal Cancer Incidence by Public Health District, Non-Hispanic White Females 50-64 Years of Age, Georgia, 2007-2011



*Late Stage is defined as Regional or Distant at time of diagnosis.

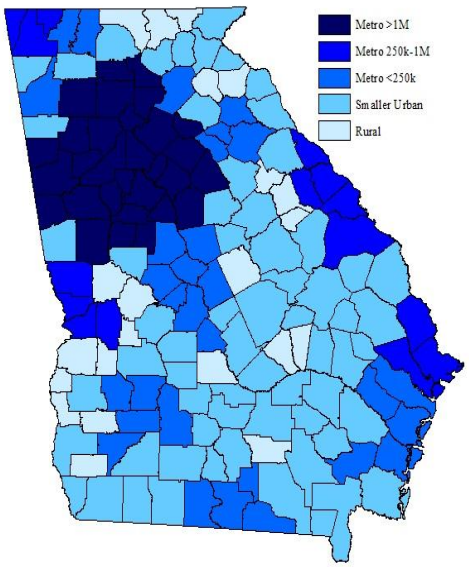
According to Figures 30, 31 and 32, during 2007-2011 in Georgia:

- Northwest (1-1), Cobb-Douglas (3-1), East Metro (3-4), Northeast (10) and West Central (7) Public Health Districts had the highest percentage of adult females age 50-64 who were diagnosed at late stage.
- Clayton (3-3), DeKalb (3-5), South Central (5-1) and North Central (5-2) Public Health Districts had the lowest percentage of adult females age 50-64 who were diagnosed at late stage.

- Northwest (1-1), North Georgia (1-2), Cobb-Douglas (3-1), East Metro (3-4), South Central (5-1) and Southeast (9-2) Public Health Districts had the highest percentage of black adult females age 50-64 who were diagnosed at late stage.
- Clayton (3-3), LaGrange (4), East Central (6), South (8-1) and Southwest (8-2) Public Health Districts had the lowest percentage of black adult females age 50-64 who were diagnosed at late stage.

- Northwest (1-1), East Central (6), West Central (7), South (8-1) and Northeast (10) Public Health Districts had the highest percentage of white adult females age 50-64 who were diagnosed at late stage.
- Clayton (3-3), DeKalb (3-5), South Central (5-1), North Central (5-2) and Southeast (9-2) Public Health Districts had the lowest percentage of white adult females age 50-64 who were diagnosed at late stage.

Figure 33. Metro, Metro Adjacent, and Rural Counties, Georgia, 2013



*For a more specific description, please refer to the technical notes

Figure 34. Age-Adjusted Colorectal Cancer Incidence (2007-2011) by Geography and Sex, Georgia

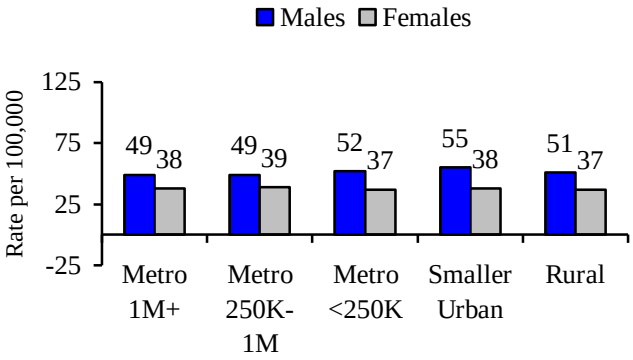
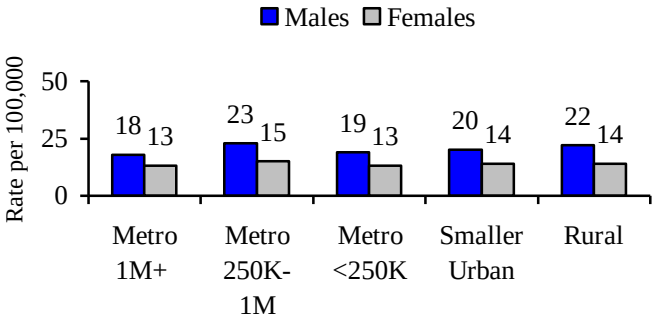


Figure 35. Age-Adjusted Colorectal Cancer Mortality (2006-2011*) by Geography and Sex, Georgia



*Note: Because of data quality issues, 2009 mortality data are not used for analysis.

During 2007-2011 in Georgia:

- Age-adjusted colorectal cancer incidence and mortality rates were consistently higher among males than among females regardless of geographical area.
- Males living in smaller urban counties had the highest incidence rates. Males living in metropolitan counties (250,000 to 1 million) had the highest mortality rates.
- Males living in metropolitan counties (1 million or more) had the lowest mortality rates.
- Males living in metropolitan counties with a population of 1 million or more or metropolitan counties (250,000 to 1 million) had significantly lower incidence rates than males living in all other counties.
- Females living in metropolitan counties (250,000 to 1 million) had higher incidence rates than females living in metropolitan counties (Less than 250,000) and rural counties.
- Females living in metropolitan counties (250,000 to 1 million) had the highest incidence rates.
- Females living in metropolitan counties with a population of 1 million or more and metropolitan counties (Less than 250,000) had the lowest mortality rates. Females living in metropolitan counties (250,000 to 1 million) had the highest mortality rates.

Treatment

Different types of treatment are available for patients with colorectal cancer. The choice of treatment depends on a variety of factors such as age, overall health and type and stage of colorectal cancer. The three standard types of treatment used in colorectal cancer are: surgery, radiation therapy and chemotherapy. Depending on the stage of cancer, multiple treatment modalities may be used at the same time or one after another.

Surgery: This is the main treatment for early stage colorectal cancer. If the cancer is found at an early stage, the doctor may remove it without cutting the abdomen by using a colonoscope (a tube that is inserted through the rectum). This procedure is called a local excision. If cancerous polyps are found and removed, the procedure is called a polypectomy. If the polyp is larger, the doctor performs a colectomy which removes a section of the large intestine on either side of the cancer including some lymph nodes and connects the healthy parts of the intestine together. If the doctor is not able to connect the ends of the colon back together, an opening is made in the abdomen and a bag is placed over the opening to collect waste. This procedure is called a colostomy.
Radiation Therapy: This treatment uses high energy x-rays to kill cancer cells. There are two types of radiation therapies: external radiation and internal radiation. External radiation comes from a machine and is directed at the cancer. During internal radiation therapy, radioactive material is placed directly into or near the cancer. Radiation therapy can be used to kill any cancer cells remaining that might not have been completely removed by surgery.
Chemotherapy: This treatment uses drugs to kill cancer cells. Systemic chemotherapy uses drugs that are injected into a vein or taken by mouth. These drugs enter the bloodstream and reach cancer cells throughout the body. In regional chemotherapy, drugs are placed directly into an artery leading to a part of the body where the tumor is located.
Adjuvant and Neoadjuvant Chemotherapy: Adjuvant chemotherapy is used after surgery when there is no evidence of cancer remaining but there is a chance the cancer will return. Neoadjuvant chemotherapy is used for rectal cancers before surgery (along with radiation), to shrink the tumor size. Chemotherapy helps to shrink tumors, relieve symptoms from the tumor and extend survival for some patients.

Spotlight:

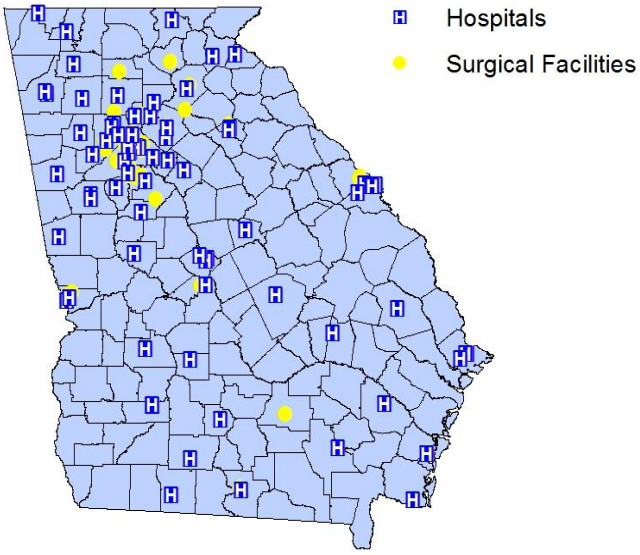
Cancer Coalition of South Georgia's Community Cancer Screening Program ™

The Community Cancer Screening Program ™ developed in 2006 by the Cancer Coalition of South Georgia, is highly effective in providing South Georgia citizens with essential cancer screenings and medical care. Through the involvement of professionals such as health navigators that identify patients in need of breast, cervical and colorectal cancer screenings, the program has increased its reach from serving 86 patients in one primary care center in 2006 to serving nearly 900 patients annually in 12 primary care centers. In 2014 alone, the program facilitated 980 breast, cervical and colorectal cancer screenings for 890 uninsured South Georgia adults.

This program, which is nationally recognized by the Mutual of America Foundation and the Agency for Healthcare Research and Quality, served as a model for the initial development of Georgia's Colorectal Cancer Screening Program. The Community Cancer Screening Program™ in 2014 provided colorectal cancer screening and navigation services at no cost to 444 uninsured adult patients. Through these colorectal cancer screenings, approximately one-third of adult patients had high-risk polyps removed, saving thousands of dollars in healthcare costs. For more information please call 229-312-1700.

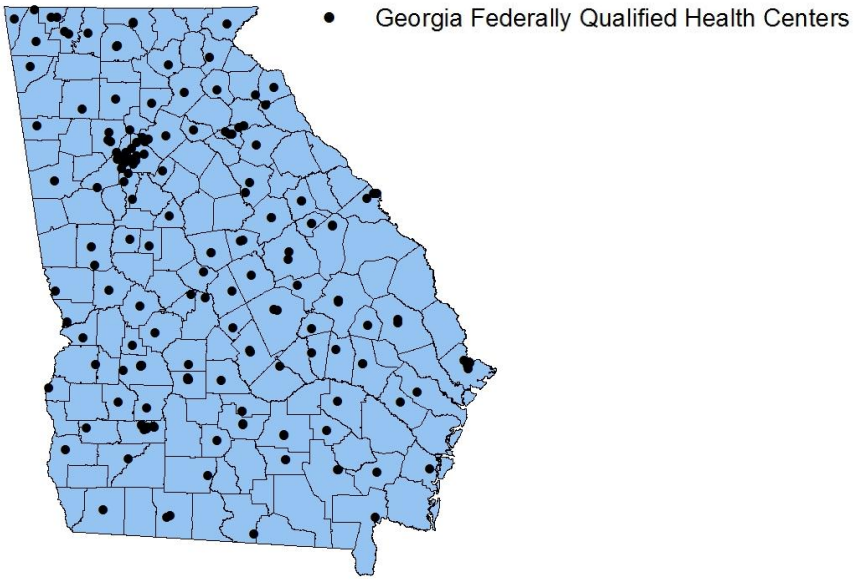
Fighting Cancer... Right Here. Right Now.
CANCER COALITION of SOUTH GEORGIA

Figure 36. Location of Hospitals and Surgical Facilities Providing Endoscopy Services, Georgia



- Georgia has a higher concentration of surgical facilities and hospitals located in the Northwest region and Metro Atlanta.
- Few surgical facilities or hospitals are located in the South Georgia.

Figure 37. Location of Federally Qualified Heath Centers, State of Georgia



- Georgia health center sites are scattered throughout Georgia.
- There are many gaps in coverage in rural counties.

Incidence and Mortality, Adults 50-64 Years of Age, during 2007-2011 in Georgia

- The overall age-adjusted colorectal cancer incidence rate among adults ages 50-64 years in Georgia was 81 per 100,000 in males and females combined. Males were 41 percent more likely to be diagnosed with colorectal cancer than females (age-adjusted rate 96/100,000 vs. 68/100,000).
- The overall age-adjusted colorectal cancer mortality rate in adults ages 50-64 years, in Georgia is 24 per 100,000 in males and females combined. Males were 58 percent more likely to die of colorectal cancer than females (age-adjusted rate 30/100,000 vs.19/100,000)
- In Georgia, adults ages 50-64 years who were non-Hispanic black males, were more likely than non-Hispanic white males to be diagnosed with colorectal cancer. Additionally, non-Hispanic black females were more likely than non-Hispanic white females to be diagnosed with colorectal cancer.
- Adults ages 50-64 years who were Black males, were more likely than white males to die of colorectal cancer in Georgia. Similarly, black females were more likely than white females to die of this disease in Georgia.

Figure 38. Age-Adjusted Colorectal Cancer Incidence Rates for Adults 50-64 Years of Age by Race/Ethnicity and Sex, Georgia, 2007-2011

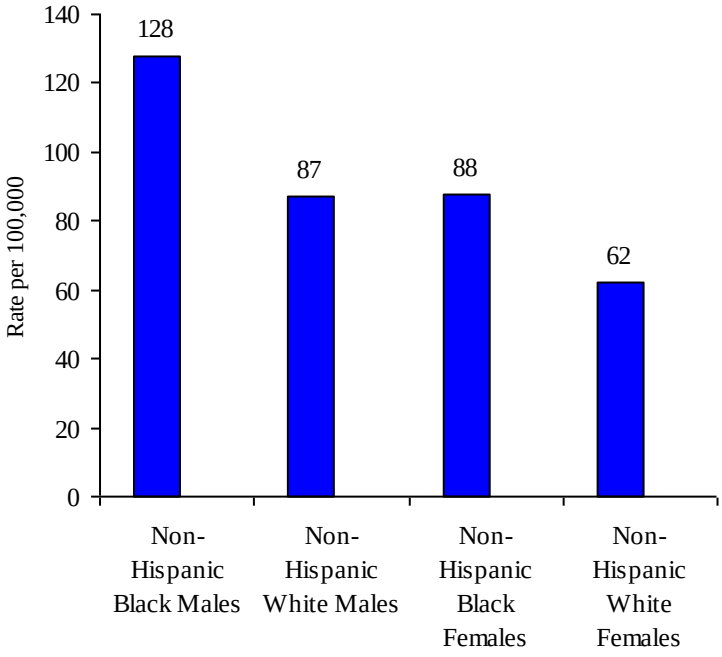
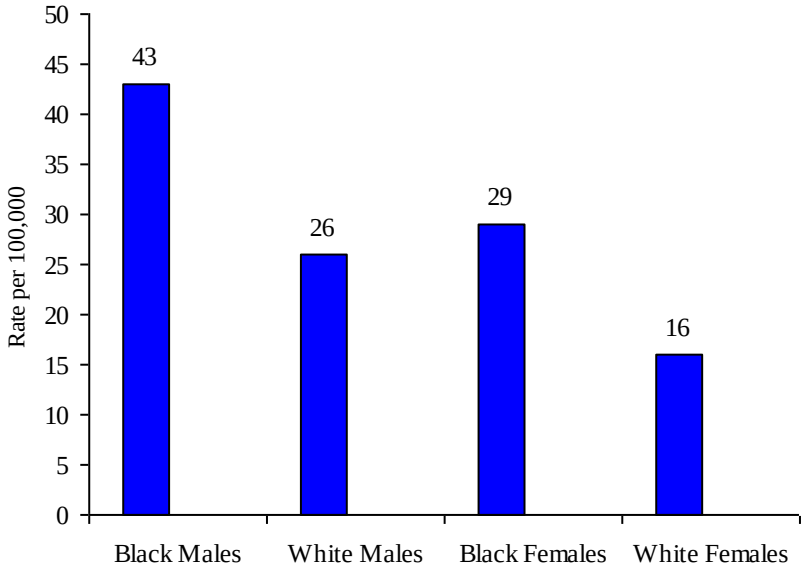


Figure 39. Age-Adjusted Colorectal Cancer Mortality Rates for Adults 50-64 Years of Age by Race and Sex, Georgia, 2006-2011*



*Because of data quality issues, 2009 mortality data are not used for analysis.

Causes and Risk Factors, Adults 50-64 Years of Age

Table 3: Prevalence (%) of Risk Factors Associated with Colorectal Cancer, Among Adults Age 50-64 Years of Age, By Sex, By Public Health District, Georgia, 2011

	Obese	Current Smoker	Physically Inactive	Diabetes	Colorectal Screening
Georgia	**34.5**	**20.9**	**29.0**	**17.0**	**57.9**
1.1 Northwest	35.9	23.2	34.7	18.9	61.9
1.2 North Georgia	27.1	33.4	33.9	12.2	32.0
2.0 North	28.2	17.6	29.7	15.4	61.1
3.1 Cobb-Douglas	29.3	17.8	23.9	10.8	59.3
3.2 Fulton	17.2	17.3	20.1	10.7	63.4
3.3 Clayton	48.5	20.6	22.9	16.4	60.7
3.4 East Metro	29.2	17.9	25.4	14.0	68.4
3.5 DeKalb	34.2	14.4	17.9	18.3	58.9
4.0 LaGrange	35.2	26.6	24.6	16.8	49.4
5.1 South Central	48.3	15.5	36.3	23.0	66.5
5.2 North Central	41.8	19.3	25.7	16.6	42.5
6.0 East Central	44.9	16.9	27.8	21.1	64.1
7.0 West Central	38.1	23.0	40.1	27.2	61.3
8.1 South	35.0	26.8	39.6	21.8	47.5
8.2 Southwest	36.7	22.8	30.5	18.6	76.9
9.1 Coastal	36.8	21.3	33.8	17.5	58.8
9.2 Southeast	44.8	22.8	32.0	24.0	59.8
10.0 Northeast	40.8	18.9	39.8	15.7	61.9

According to the Georgia 2011 Behavioral Risk Factor Surveillance System (Table 3):

Obese

- Clayton (3-3) Public Health District has the highest percentage of adults age 50-64 who are obese (48.5 percent).
- Fulton (3-2) Public Health District has the lowest percentage of adults age 50-64 who are obese (17.2 percent).

Current Smoker

- North Georgia (1-2) Public Health District has the highest percentage of adults age 50-64 who are current smokers (33.4 percent).
- DeKalb (3-5) Public Health District has the lowest percentage of adults age 50-64 who are current smokers (14.4 percent).

Physically Inactive

- West Central (7) Public Health District has the highest percentage of adults age 50-64 who are physically inactive (40.1 percent).
- DeKalb (3-5) Central Public Health District has the lowest percentage of adults age 50-64 who are physically inactive (17.9 percent).

Diabetes

- West Central (7-0) Public Health District has the highest percentage of adults age 50-64 who are diabetic (27.2 percent).
- Fulton (3-2) Public Health District has the lowest percentage of adults age 50-64 who are diabetic (10.7 percent).

Colorectal Screening

- Southwest (8-2) Public Health District has the highest percentage of adults age 50-64 who meet the recommendation for colorectal screening (76.9 percent).
- North Georgia (1-2) Public Health District has the lowest percentage of adults age 50-64 who meet the recommendation for colorectal screening (32.0 percent).

Table 4: Prevalence (%) of Risk Factors Associated with Colorectal Cancer and Colorectal Screening, Among Adults Age 50-64 Years of Age, By Demographic Factors, Georgia, 2011

	Obese	Current Smoker	Physically Inactive	Diabetes	Colorectal Screening
Sex					
Male	34	24	28	18	54
Female	35	19	30	16	61
Insurance Status					
Have Health Insurance	34	18	28	16	63
No Health Insurance	35	33	32	20	33
Education					
Less than High School	44	32	42	25	41
High School Graduate	37	25	38	21	55
Some College	34	21	25	15	60
College Graduate	26	9	15	9	70
Income					
Under $35,000	41	30	36	24	45
$35,000-$50,000	34	21	30	17	66
$50,000+	30	12	20	10	69

According to the Georgia 2011 Behavioral Risk Factor Surveillance System (Table 4):

- The prevalence of obesity in males and females was similar.
- The prevalence of obesity among adults who have health insurance and adults who do not have health insurance was similar.
- As educational status increased the percentage of obese adults decreased.
- As income increased the percentage of obese adults decreased.

- Males were more likely to be current smokers.
- Adults who do not have health insurance were significantly more likely to be current smokers.
- As educational status increased the percentage of current smokers decreased.
- As income increased the percentage of current smokers significantly decreased.

- Females were more likely to be physically inactive.
- Adults who do not have health insurance were more likely to be physically inactive.
- As educational status increased the percentage of physically inactive adults decreased.
- As income increased the percentage of physically inactive adults decreased.

- Males were more likely to be diabetic.
- Adults who do not have health insurance were significantly more likely to be diabetic.
- As educational status increased the percentage of diabetic adults decreased.
- As income increased the percentage of diabetic adults significantly decreased.

- Females were more likely to meet the recommendation for colorectal screening than males.
- Adults who have health insurance were significantly more likely to meet the recommendation.
- As educational status increased so does the percentage of adults meeting the recommendation for colorectal screening.
- As income increased so does the percentage of adults meeting the recommendation for colorectal screening.

Screening, Adults 50-64 Years of Age

Colorectal cancer is the third most commonly diagnosed cancer and cause of cancer death among Georgian men and women. Colorectal cancer affects both men and women and most often occurs in people over 50 years of age. Regular screenings for colorectal cancer can find cancer early (when it is most likely to be curable). Screenings can also prevent colorectal cancer by finding polyps and removing them before they turn cancerous.

Healthy People 2020 Goal/Objective for Colorectal Cancer Screening

- Goal: Reduce the number of new cancer cases, as well as the illness, disability and death caused by cancer
- Objective: Monitor the incidence of colorectal cancer and promote evidence based screening

The Healthy People 2020 objective measures the proportion of adults who receive colorectal cancer screening based on the most recent guidelines.

According to Healthy People 20/20 objective, colorectal screening is defined as screening for colorectal cancer with fecal occult blood testing in the past year and/or sigmoidoscopy in the past five years, and/or blood stool test in the past three years or colonoscopy in the past 10 years.

Georgia Cancer Plan 2014-2019 for Colorectal Cancer Screening

Georgia's Objective and Target by 2019
Increase screening for colorectal cancer among adults over 50 years to 85 percent by 2019, regardless of insurance status, and increase screening among those with a family history of colorectal cancer.

Targets by 2019

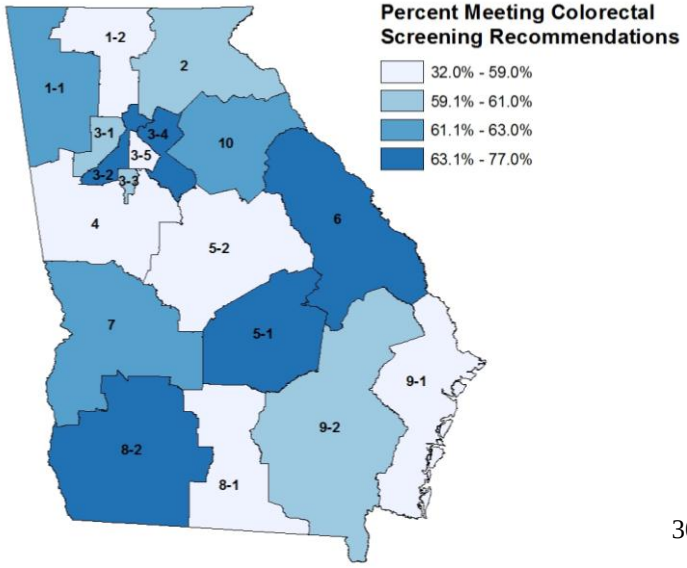
• Increase by 10 percent the proportion of individuals with a family history of colorectal cancer who receives evidence-based genetic risk assessment and appropriate screening.

• Reduce income and health insurance status disparities in colorectal cancer screening rates by 10 percent.

According to the Georgia 2011 Behavioral Risk Factor Surveillance System (Figure 17):

- In Georgia, 57.9 percent of adults ages 50-64 years reported having a blood stool test using a home kit within the past 12 months, having a sigmoidoscopy every five years and/or colonoscopy every 10 years.
- The Southwest Public Health District (8-2), has the highest percentage of adults age 50-64 who met the recommendation for colorectal screening (76.9 percent).
- North Georgia Public Health District (1-2), has the lowest percentage of adults age 50-64 meeting the recommendation for colorectal screening (32.0 percent).
- The 2014-2019 goal of the Georgia Cancer Plan is to increase screening from 69.4 to 85 percent by 2019, regardless of insurance status, and increase screening among those with a family history of colorectal cancer.
- The prevalence of colorectal cancer screening among adults with an income of less than $35,000 was 45 percent. Adults who have health insurance had a higher prevalence of colorectal screening (63 percent) than adults who do not have health insurance (33 percent).

Figure 40. Prevalence (%) of Colorectal Cancer Screening* Among Adults 50-64 Years of Age by Public Health District, Georgia, 2011



*The Colorectal Cancer Screening Recommendation is defined as the percent of adults who had a FOBT in the last year, and/or sigmoidoscopy in the last 5 years, and/or colonoscopy in the last 10 years.

Colorectal Cancer Resources:

You can learn more about colorectal cancer from the following organizations:

American Cancer Society
Telephone: 1-800-ACS-2345 (1-800-227-2345)
Website: www.cancer.org

Centers for Disease Control and Prevention
Telephone: 1-800-CDC-INFO
Website: www.cdc.gov

National Cancer Institute, Cancer Information Service
Telephone: 1-800-4-CANCER (1-800-422-6237)
Website: www.cancer.gov

National Colorectal Cancer Research Alliance
Telephone: 424-283-3600
Website: www.eifoundation.org/programs/eifs-national-colorectal-cancer-research-alliance

Cancer Research and Prevention Foundation
Telephone: 1-800-227-2732
Website: www.preventcancer.org

Cancer Control Planet
Website: http://cancercontrolplanet.cancer.gov/

Colon Cancer Alliance
Telephone: 1-877-422-2030
Website: www.ccalliance.org

Georgia Comprehensive Cancer Registry
Telephone: 404-463-3748
Website: http://dph.georgia.gov/georgia-comprehensive-cancer-registry

Technical Notes

Definitions:

Age-adjusted rate A rate calculated in a manner that allows for the comparison of rates derived from populations with different age structures.

Cancer incidence The number of new cancer cases occurring in a population during a specified period of time, often expressed as a rate per 100,000 population.

Cancer mortality The number of cancer deaths occurring in a population during a specified period of time, often expressed as a rate per 100,000 population.

Prevalence The number of people with a disease or risk factor out of the total number of persons in a population, often expressed as a percentage.

Average Risk Population includes most people who develop colorectal cancer and have no identifiable risk factors. People at increased risk of colorectal cancer consist of those with personal or family history of colorectal cancer, those with colorectal cancer symptoms or those who already have inflammatory bowel disease or certain genetic conditions.

Obesity is defined as a body mass index (BMI) of 30 or greater.

Smoking is defined as an adult smoking at least 100 cigarettes in their lifetime and is currently smoking.

Physical Inactivity is defined as not participating in any physical activities within last 30 days.

Georgia Public Health Districts

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

2013 Rural-Urban Continuum Codes: Rural-Urban Continuum Codes form a classification scheme that distinguishes metropolitan (metro) counties by the population size of their metro area, and nonmetropolitan (nonmetro) counties by degree of urbanization and adjacency to a metro area or areas:

Code	Description	Counties	Regroup	Description
1	Counties in metro areas of 1 million population or more		1	Metro >1 million
2	Counties in metro areas of 250,000 to 1 million population		2	Metro 250,000-1 million
3	Counties in metro areas of fewer than 250,000 population		3	Metro <250,000
4	Urban population of 20,000 or more, adjacent to a metro area		4,5,6, & 7	Smaller Urban
5	Urban population of 20,000 or more, not adjacent to a metro area		8 & 9	Rural
6	Urban population of 2,500 to 19,999, adjacent to a metro area			
7	Urban population of 2,500 to 19,999, not adjacent to a metro area			
8	Completely rural or less than 2,500 urban population, adjacent to a metro area			
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area			

Data Sources:

The number of new cases and incidence rates for the state of Georgia for 2007-2011 were obtained from the Georgia Department of Public Health, Division of Health Protection, Epidemiology Program, Georgia Comprehensive Cancer Registry. Incidence data were coded using ICD-O-3 codes and grouped using the SEER Site Recode ICD-O-3/WHO 2008. For more information on these groupings, please visit the Surveillance, Epidemiology, and End Results (SEER) Program on the web at http://seer.cancer.gov/siterecode/icdo3_dwhoheme/.

The number of deaths and mortality rates for the state of Georgia for 2006-2008, 2010, and 2011 were obtained from the Georgia Department of Public Health, Office of Vital Records. Mortality data were coded using ICD-10 codes and grouped using the SEER Cause of Death Recode 1969+. For more information on these groupings, please visit the SEER Program on the web at http://seer.cancer.gov/codrecode/1969+_d04162012.

Incidence trend and survival data for Georgia were obtained from the SEER Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2013 Sub (2000-2011) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2012 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems

Branch, released April 2014 (updated 5/7/2014), based on the November 2013 submission. Incidence and survival data were categorized using the SEER Site Recode ICD-O-3/WHO 2008.

Mortality trend data for Georgia were obtained from the SEER Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Aggregated With State, Total U.S. (1969-2011) <Katrina/Rita Population Adjustment>, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released July 2014. Underlying mortality data provided by NCHS (www.cdc.gov/nchs). Cause of death was categorized using the SEER Cause of Death Recode 1969+.

Population estimates for 2006-2013 and the 2000 US standard million population were obtained from the US Bureau of the Census, available at http://www.census.gov/.

Incidence and mortality rates for the United States for 2007-2011 were obtained from the North American Association of Central Cancer Registries (NAACCR) Cancer in North America: 2007-2011 publication.

Health risk and screening behavior data for adults were obtained from the Behavioral Risk Factor Surveillance System (BRFSS), a telephone health survey administered by the Georgia Department of Public Health, in collaboration with the CDC (Centers for Disease Control and Prevention). National data for the prevalence of similar risk factors was retrieved from Centers for Disease Control and Prevention at www.cdc.gov/brfss/

Clinical information on colorectal cancer was retrieved from the Mayo Clinic at www.mayoclinic.com, Colorectal Cancer Medline Plus at www.nlm.nih.gov/medlineplus, National Cancer Institute at www.cancer.gov and the American Cancer Society at www.cancer.org.

Methods:

Incidence rates were calculated per 100,000 population and age-adjusted by the direct method to the 2000 US standard million population. Except where calculated to show trends, the incidence rates are five-year average annual rates for the period 2007 through 2011.

Mortality rates were calculated per 100,000 population and age-adjusted by the direct method to the 2000 US standard million population. Because of data quality issues, 2009 Georgia cancer death data are not used for analysis. Except where calculated to show trends, the mortality rates are five-year average annual rates including data for 2006-2008, 2010 and 2011 combined.

The estimated number of cases for 2013 was calculated by multiplying the age-specific state incidence rates (2007-2011) by the age-specific state population estimates for 2013. The results were then summed to obtain a state estimate.

The estimated number of deaths for 2013 was calculated by multiplying the age-specific state mortality rates (2006-2008, 2010 and 2011 combined) by the age-specific state population estimates for 2013. The results were then summed to obtain a state estimate.

Annual percent change computations for the incidence and mortality trends were calculated using Joinpoint Regression Program, Version 4.1.1 - August 2014; Statistical Methodology and Applications Branch, Surveillance Research Program, National Cancer Institute.

The Rural-Urban classification of Georgia counties was based on the 2013 Rural-Urban Continuum Codes from the United States Department of Agriculture, Economic Research Service. Information about the Rural-Urban Continuum Codes can be retrieved from http://www.ers.usda.gov/Data/RuralUrbanContinuumCodes/.

Appendix A

Figures 18 & 19
Number of Incident Colorectal Cancer Cases and Age-adjusted Colorectal Cancer Incidence Rates by Sex, by Public Health District, Georgia, 2007-2011

Public Health District	Males		Females	
	Cases	**Incidence Rate**	**Cases**	**Incidence Rate**
Georgia	10,123	50.7	9,316	37.5
1.1 Northwest	716	50.71	631	36.27
1.2 North Georgia	409	43.15	373	33.10
2.0 North	762	51.24	634	36.84
3.1 Cobb-Douglas	720	48.42	673	36.46
3.2 Fulton	822	49.95	823	38.41
3.3 Clayton	236	55.49	221	41.00
3.4 East Metro	769	47.12	722	34.98
3.5 DeKalb	597	47.46	652	38.90
4.0 LaGrange	921	53.86	842	39.79
5.1 South Central	181	43.86	169	36.64
5.2 North Central	646	53.00	601	39.91
6.0 East Central	539	52.26	486	37.27
7.0 West Central	453	54.66	474	43.95
8.1 South	283	51.97	244	35.76
8.2 Southwest	481	57.46	423	38.88
9.1 Coastal	609	50.22	570	38.66
9.2 Southeast	456	55.19	328	33.46
10.0 Northeast	523	54.68	450	37.79

Figures 20 & 21
Number of Colorectal Cancer Deaths and Age-adjusted Colorectal Cancer Mortality Rates by Sex, by Public Health District, Georgia, 2006-2011*

Public Health District	**Males**		**Females**	
	Deaths	**Mortality Rate**	**Deaths**	**Mortality Rate**
Georgia	3,555	19.8	3,330	13.8
1.1 Northwest	274	21.92	252	14.76
1.2 North Georgia	125	14.26	111	10.36
2.0 North	245	17.42	212	12.46
3.1 Cobb-Douglas	216	16.85	235	13.74
3.2 Fulton	294	19.70	271	12.75
3.3 Clayton	78	20.93	79	15.78
3.4 East Metro	247	17.73	253	13.79
3.5 DeKalb	230	20.54	235	14.67
4.0 LaGrange	297	19.36	301	14.82
5.1 South Central	56	14.95	65	13.99
5.2 North Central	242	22.18	224	15.10
6.0 East Central	238	24.61	183	14.30
7.0 West Central	181	23.53	173	15.87
8.1 South	106	20.29	92	13.35
8.2 Southwest	153	20.08	153	13.89
9.1 Coastal	225	20.30	217	14.68
9.2 Southeast	156	21.12	116	12.00
10.0 Northeast	192	21.80	158	13.48

Appendix B

Figures 22 & 23
Number of Incident Colorectal Cancer Cases and Age-adjusted Colorectal Cancer Incidence Rates by Sex, by Public Health District, Georgia, 2007-2011

County Name	Males		Females	
	Cases	Incidence Rate	Cases	Incidence rate
Georgia	10,123	50.7	9,316	37.5
Appling	25	61.3	21	37.6
Atkinson	12	~	8	~
Bacon	18	60.0	11	~
Baker	6	~	7	~
Baldwin	59	51.0	45	38.5
Banks	37	79.0	24	50.0
Barrow	63	47.1	44	27.1
Bartow	148	71.5	121	47.8
Ben Hill	16	36.1	21	37.8
Berrien	23	49.6	22	36.4
Bibb	189	55.0	214	45.3
Bleckley	11	~	17	37.4
Brantley	22	51.1	13	~
Brooks	19	42.6	18	32.6
Bryan	40	76.7	36	54.1
Bulloch	67	53.4	37	24.6
Burke	25	47.7	51	77.6
Butts	29	46.8	22	34.7
Calhoun	10	~	9	~
Camden	44	44.0	45	42.3
Candler	13	~	8	~
Carroll	130	58.0	126	45.3
Catoosa	61	41.4	60	31.5
Charlton	14	~	7	~
Chatham	295	50.1	294	38.8
Chattahoochee	***	~	<5	~
Chattooga	35	49.8	22	26.2
Cherokee	145	35.7	164	34.2
Clarke	91	53.4	95	39.7
Clay	5	~	6	~
Clayton	236	55.5	221	41.0
Clinch	6	~	6	~
Cobb	592	47.2	538	34.4
Coffee	38	38.0	50	47.0
Colquitt	53	53.9	34	26.1
Columbia	101	36.9	95	30.7
Cook	24	57.9	24	47.3
Coweta	143	53.1	113	37.0
Crawford	16	40.6	9	~
Crisp	31	51.9	35	44.0
Dade	18	38.9	17	33.8
Dawson	30	50.3	28	44.4
Decatur	38	56.7	34	38.0
DeKalb	597	47.5	652	38.9
Dodge	27	49.2	25	41.7

*Note: 2009 death data were excluded from the analysis due to data reliability

Dooly	10	~	16	35.6
Dougherty	118	61.0	117	41.8
Douglas	128	54.9	135	46.8
Early	18	59.3	10	~
Echols	<5	~	<5	~
Effingham	58	60.0	52	46.2
Elbert	38	71.1	29	39.8
Emanuel	36	65.9	27	40.5
Evans	18	67.9	13	~
Fannin	40	51.1	29	29.8
Fayette	92	37.2	115	35.5
Floyd	112	46.6	104	34.4
Forsyth	159	49.3	130	35.8
Franklin	50	82.5	40	50.4
Fulton	822	49.9	823	38.4
Gilmer	40	46.7	27	28.4
Glascock	9	~	6	~
Glynn	104	48.8	85	32.9
Gordon	58	48.0	59	40.5
Grady	42	63.3	37	49.2
Greene	32	58.7	17	26.6
Gwinnett	585	45.8	539	33.8
Habersham	72	61.1	55	40.5
Hall	187	48.7	154	34.8
Hancock	12	~	14	~
Haralson	38	53.5	39	44.1
Harris	37	42.4	33	33.6
Hart	39	53.4	40	40.0
Heard	30	98.0	10	~
Henry	191	53.3	169	38.3
Houston	163	57.6	138	39.9
Irwin	16	64.6	12	~
Jackson	85	62.8	79	50.3
Jasper	11	~	17	41.9
Jeff Davis	20	48.5	20	46.2
Jefferson	36	90.1	19	32.0
Jenkins	8	~	14	~
Johnson	13	~	5	~
Jones	36	52.8	24	26.8
Lamar	28	61.9	25	46.0
Lanier	11	~	9	~
Laurens	70	53.8	58	39.1
Lee	27	45.4	27	42.3
Liberty	43	43.5	39	39.6
Lincoln	18	68.5	11	~
Long	12	~	6	~
Lowndes	102	52.3	88	34.4
Lumpkin	36	43.6	25	31.6
Macon	27	80.4	24	55.5
Madison	43	63.4	31	37.3
Marion	13	~	10	~
McDuffie	29	59.0	25	35.2
McIntosh	13	~	13	~
Meriwether	43	77.5	33	42.9
Miller	6	~	9	~
Mitchell	35	62.2	26	36.4
Monroe	42	57.9	26	32.5
Montgomery	9	~	7	~

Morgan	24	49.9	25	43.1
Murray	57	69.1	36	35.1
Muscogee	226	59.8	251	47.0
Newton	106	57.6	99	40.8
Oconee	23	30.3	30	35.4
Oglethorpe	21	52.8	24	52.5
Paulding	127	53.3	102	35.7
Peach	39	67.4	34	45.5
Pickens	35	39.5	35	35.8
Pierce	30	62.8	19	33.5
Pike	20	48.0	19	39.0
Polk	48	52.3	45	36.8
Pulaski	12	~	15	~
Putnam	27	39.2	24	33.1
Quitman	9	~	5	~
Rabun	26	47.5	23	33.7
Randolph	11	~	12	~
Richmond	205	48.3	189	35.1
Rockdale	78	43.9	84	36.9
Schley	7	~	5	~
Screven	29	75.1	20	42.6
Seminole	12	~	13	~
Spalding	94	62.3	93	49.4
Stephens	49	65.4	41	43.4
Stewart	13	~	7	~
Sumter	37	51.0	36	37.6
Talbot	6	~	12	~
Taliaferro	<5	~	<5	~
Tattnall	45	78.6	28	44.2
Taylor	13	~	18	61.2
Telfair	16	36.1	14	~
Terrell	17	77.7	23	71.7
Thomas	65	56.7	56	38.5
Tift	56	63.3	37	32.8
Toombs	32	56.0	26	30.7
Towns	17	39.7	20	35.5
Treutlen	8	~	10	~
Troup	87	58.1	76	39.4
Turner	14	~	10	~
Twiggs	23	82.2	12	~
Union	28	34.5	19	20.2
Upson	34	49.1	41	46.1
Walker	71	41.3	62	28.2
Walton	103	54.2	76	33.1
Ware	39	42.0	27	20.9
Warren	8	~	10	~
Washington	20	37.2	26	39.6
Wayne	57	73.3	34	42.6
Webster	<5	~	<5	~
Wheeler	***	~	<5	~
White	32	42.3	35	37.8
Whitfield	92	44.9	82	31.9
Wilcox	10	~	16	56.9
Wilkes	32	100.2	18	43.5
Wilkinson	9	~	18	53.1
Worth	34	58.1	21	28.5

Average annual rate per 100,000, age-adjusted to the 2000 US standard population.
*** Data suppressed for confidentiality purposes
~ Rates not calculated where the count is less than sixteen.

Appendix C

Figures 24 & 25
Number of Colorectal Cancer Deaths and Age-adjusted Colorectal Cancer Mortality Rates by Sex, by Public Health District, Georgia, 2006-2011*

County Name	Males		Females	
	Deaths	Mortality Rate	Deaths	Mortality rate
Georgia	3,555	19.8	3,330	13.8
Appling	10	~	5	~
Atkinson	***	~	<5	~
Bacon	<5	~	***	~
Baker	<5	~	<5	~
Baldwin	15	~	17	14.6
Banks	14	~	9	~
Barrow	17	16.4	15	~
Bartow	39	20.7	38	15.7
Ben Hill	9	~	6	~
Berrien	<5	~	***	~
Bibb	93	29.9	86	17.7
Bleckley	<5	~	<5	~
Brantley	***	~	<5	~
Brooks	9	~	7	~
Bryan	13	~	10	~
Bulloch	16	13.1	21	14.2
Burke	18	37.9	15	~
Butts	13	~	11	~
Calhoun	<5	~	<5	~
Camden	10	~	17	16.5
Candler	***	~	<5	~
Carroll	55	29.7	39	14.5
Catoosa	23	15.7	21	10.9
Charlton	<5	~	<5	~
Chatham	115	20.8	107	13.8
Chattahoochee	<5	~	<5	~
Chattooga	18	28.7	9	~
Cherokee	51	12.5	48	10.5
Clarke	26	15.3	38	16.5
Clay	<5	~	<5	~
Clayton	78	20.9	79	15.8
Clinch	<5	~	<5	~
Cobb	177	15.9	186	13.0
Coffee	13	~	14	~
Colquitt	12	~	15	~
Columbia	37	15.9	28	10.1
Cook	7	~	6	~
Coweta	41	19.0	32	11.4
Crawford	<5	~	<5	~
Crisp	15	~	10	~
Dade	10	~	9	~
Dawson	9	~	7	~
Decatur	15	~	14	~
DeKalb	230	20.5	235	14.7
Dodge	10	~	10	~
Dooly	7	~	6	~
Dougherty	35	20.3	46	16.3

Douglas	39	22.4	49	18.3
Early	7	~	5	~
Echols	<5	~	<5	~
Effingham	23	24.7	18	20.0
Elbert	13	~	9	~
Emanuel	20	37.9	8	~
Evans	9	~	5	~
Fannin	14	~	10	~
Fayette	28	12.4	40	13.2
Floyd	45	20.7	51	16.5
Forsyth	48	17.8	38	11.5
Franklin	17	29.0	18	23.8
Fulton	294	19.7	271	12.8
Gilmer	10	~	6	~
Glascock	***	~	<5	~
Glynn	38	20.0	39	14.5
Gordon	17	16.6	19	13.7
Grady	13	~	9	~
Greene	17	44.0	10	~
Gwinnett	184	17.9	187	13.7
Habersham	21	17.6	15	~
Hall	56	15.5	51	11.6
Hancock	8	~	5	~
Haralson	15	~	17	19.4
Harris	14	~	12	~
Hart	11	~	13	~
Heard	<5	~	***	~
Henry	50	16.4	65	16.9
Houston	56	21.3	38	11.2
Irwin	9	~	6	~
Jackson	30	24.7	29	19.0
Jasper	<5	~	***	~
Jeff Davis	9	~	5	~
Jefferson	15	~	13	~
Jenkins	<5	~	***	~
Johnson	***	~	<5	~
Jones	13	~	7	~
Lamar	9	~	9	~
Lanier	***	~	<5	~
Laurens	24	20.1	22	15.5
Lee	12	~	6	~
Liberty	17	19.9	15	~
Lincoln	***	~	<5	~
Long	<5	~	***	~
Lowndes	31	15.7	32	12.7
Lumpkin	***	~	<5	~
Macon	10	~	15	~
Madison	12	~	13	~
Marion	***	~	<5	~
McDuffie	19	40.4	8	~
McIntosh	8	~	5	~
Meriwether	9	~	10	~
Miller	<5	~	<5	~
Mitchell	10	~	14	~
Monroe	16	24.7	21	27.1
Montgomery	<5	~	<5	~
Morgan	***	~	<5	~
Murray	10	~	12	~

Muscogee	96	26.7	93	17.1
Newton	34	19.9	38	16.2
Oconee	12	~	6	~
Oglethorpe	7	~	7	~
Paulding	52	25.2	34	14.2
Peach	13	~	12	~
Pickens	11	~	11	~
Pierce	12	~	6	~
Pike	5	~	6	~
Polk	14	~	20	15.6
Pulaski	<5	~	***	~
Putnam	8	~	11	~
Quitman	***	~	<5	~
Rabun	16	27.5	9	~
Randolph	6	~	5	~
Richmond	89	22.2	84	15.8
Rockdale	29	16.7	28	12.5
Schley	<5	~	<5	~
Screven	12	~	6	~
Seminole	<5	~	***	~
Spalding	30	19.6	24	12.5
Stephens	15	~	17	17.1
Stewart	<5	~	<5	~
Sumter	<5	~	***	~
Talbot	<5	~	<5	~
Taliaferro	<5	~	<5	~
Tattnall	14	~	8	~
Taylor	<5	~	***	~
Telfair	<5	~	***	~
Terrell	6	~	5	~
Thomas	22	22.0	22	14.0
Tift	19	22.9	19	15.9
Toombs	11	~	9	~
Towns	5	~	8	~
Treutlen	<5	~	<5	~
Troup	37	24.0	45	22.6
Turner	11	~	5	~
Twiggs	<5	~	<5	~
Union	11	~	14	~
Upson	17	25.8	15	~
Walker	41	26.1	34	14.6
Walton	50	27.2	28	12.4
Ware	20	21.4	17	12.5
Warren	***	~	<5	~
Washington	8	~	7	~
Wayne	15	~	13	~
Webster	<5	~	<5	~
Wheeler	<5	~	<5	~
White	10	~	9	~
Whitfield	29	16.6	24	9.6
Wilcox	<5	~	***	~
Wilkes	7	~	6	~
Wilkinson	<5	~	***	~
Worth	***	~	<5	~

Average annual rate per 100,000, age-adjusted to the 2000 US standard population.
*Note: 2009 death data were excluded from the analysis due to data reliability

~ Rates not calculated where the count is less than sixteen.

*** Data suppressed for confidentiality purposes

Appendix D

Figures 26, 27 & 28
Number of Incident Late Stage Colorectal Cancer Cases and Percent of Late Stage Colorectal Cancer Incidence Rates by Sex, by Race/Ethnicity, by Public Health District, Georgia, 2007-2011

Public Health District	Males		Non-Hispanic Black Males		Non-Hispanic White Males	
	Cases	Percent	Cases	Percent	Cases	Percent
Georgia	5,693	53.69	1,576	54.33	3,863	53.16
1.1 Northwest	395	53.45	26	52.00	366	53.74
1.2 North Georgia	247	54.65	9	56.25	224	53.72
2.0 North	435	54.10	22	53.66	396	54.17
3.1 Cobb-Douglas	408	54.33	67	54.03	314	53.58
3.2 Fulton	468	55.19	249	55.58	191	53.95
3.3 Clayton	130	51.79	75	54.35	45	47.87
3.4 East Metro	446	56.31	86	55.48	287	54.56
3.5 DeKalb	309	49.60	180	54.88	113	43.30
4.0 LaGrange	521	54.33	130	58.30	380	53.45
5.1 South Central	84	42.86	19	42.22	65	44.52
5.2 North Central	320	45.91	119	47.04	195	45.14
6.0 East Central	296	53.82	116	55.24	175	52.87
7.0 West Central	280	56.68	108	53.73	167	59.86
8.1 South	149	51.38	43	49.43	105	53.57
8.2 Southwest	292	56.15	105	54.4	185	57.28
9.1 Coastal	340	53.71	109	54.77	217	52.29
9.2 Southeast	249	52.42	50	54.95	190	51.35
10.0 Northeast	324	61.13	63	63.64	248	59.90

Figures 29, 30 & 31
Number of Incident Late Stage Colorectal Cancer Cases and Percent of Late Stage Colorectal Cancer Incidence Rates by Sex, by Race/Ethnicity, by Public Health District, Georgia, 2007-2011

Public Health District	Females		Non-Hispanic Black Females		Non-Hispanic White Females	
	Cases	Percent	Cases	Percent	Cases	Percent
Georgia	5,139	52.76	1,591	52.40	3,367	53.08
1.1 Northwest	360	54.88	37	58.73	317	55.32
1.2 North Georgia	212	53.00	7	58.33	201	53.17
2.0 North	345	51.49	24	52.17	312	51.91
3.1 Cobb-Douglas	378	54.08	87	59.59	278	53.15
3.2 Fulton	456	53.58	248	54.75	187	52.53
3.3 Clayton	112	48.28	69	48.25	37	48.68
3.4 East Metro	409	54.97	103	56.28	252	53.50
3.5 DeKalb	340	49.93	210	51.22	119	48.57
4.0 LaGrange	457	52.41	90	47.87	353	53.81
5.1 South Central	88	47.57	32	56.14	55	44.00
5.2 North Central	314	48.83	150	52.45	158	45.14
6.0 East Central	265	53.32	103	49.76	156	57.35
7.0 West Central	284	55.47	117	50.43	161	59.63
8.1 South	136	53.33	34	47.22	101	56.42
8.2 Southwest	232	51.21	90	49.45	139	52.26
9.1 Coastal	309	52.55	109	51.42	188	52.08
9.2 Southeast	174	50.43	33	60.00	136	48.40
10.0 Northeast	268	58.52	48	53.93	217	60.28

Figure 40
Number of Incident Colorectal Cancer Cases and Percent of Colorectal Cancer Screening Among Adults 50-64 Years of Age by Public Health District, Georgia, 2011

Public Health District	Adults	
	Cases	Percent
1.1 Northwest	39	61.88
1.2 North Georgia	26	32.04
2.0 North	38	61.05
3.1 Cobb-Douglas	38	59.25
3.2 Fulton	48	63.37
3.3 Clayton	27	60.74
3.4 East Metro	37	68.44
3.5 DeKalb	43	58.92
4.0 LaGrange	40	49.41
5.1 South Central	36	66.51
5.2 North Central	29	42.5
6.0 East Central	40	64.11
7.0 West Central	43	61.3
8.1 South	28	47.46
8.2 Southwest	36	76.92
9.1 Coastal	39	58.82
9.2 Southeast	19	59.75
10.0 Northeast	45	61.87