

Alabama

Cancer Facts & Figures 2018-2019



A sourcebook of cancer data for cancer prevention and control activities in Alabama



Letter From Dr. Harris



Scott Harris, M.D., M.P.H.
STATE HEALTH OFFICER

November 1, 2019

Dear Colleagues:

I am pleased to present the annual *Alabama Cancer Facts & Figures* report produced by the Alabama Statewide Cancer Registry in collaboration with the American Cancer Society.

Cancer is the second leading cause of death in Alabama, exceeded only by heart disease. Breast, colorectal, lung, and prostate cancers are the most commonly diagnosed cancers, accounting for more than 47 percent of all new cases in Alabama; however, more Alabamians die from lung cancer than from breast, colorectal, and prostate cancers combined. Eliminating tobacco use, one of the single most preventable causes of disease, and eliminating exposure to secondhand smoke could greatly reduce the incidence and mortality of lung cancer. For breast, prostate, and colorectal cancers, there are established, effective screening tests which can diagnose these cancers at an early stage when treatment is more effective and survival is more likely. In addition, engaging in healthy lifestyle habits, such as being physically active and consuming a healthy diet, can also contribute to cancer prevention efforts.

It is my hope that the information presented in this report will assist the partners, agencies, and organizations involved in cancer prevention efforts throughout the state as we continue to work toward reducing Alabama's cancer burden.

Sincerely,

A handwritten signature in blue ink, appearing to read "Scott Harris", is written over a light blue horizontal line.

Scott Harris, M.D., M.P.H.
State Health Officer

SH/LF

American Cancer Society Letter

Dear Fellow Alabamians,

It is an honor to collaborate with the Alabama Department of Public Health (ADPH) to present to you the latest *Alabama Cancer Facts & Figures* report. This project was developed to assist cancer control organizations, health professionals, legislators, donors, community groups, and others who are working to reduce the cancer burden in the state of Alabama. The goal of this publication is to facilitate cancer control planning that is based on data and directed toward clear outcomes and goals. Cancer continues to be a major public health problem in Alabama.

In the past few years, great progress has been made toward reducing the mortality and disease due to cancer. However, we still know that there is a lot of work to be done. We can meet those challenges by setting lofty goals, but we cannot do it alone. We need help from individuals like you, our community partners in cancer control efforts.

The American Cancer Society is a member of the Alabama Comprehensive Cancer Control Coalition (ACCCC), and we have been engaged in this work on a national, state, and local level. The immediate goal of the ACCCC is to develop a state cancer control plan, which will continue to serve as a road map to guide action in cancer control throughout the state and help to avoid a duplication of services. It is based on the public health model of promoting health and preventing disease using risk reduction, screening, treatment, surveillance, public policy, and program evaluation.

This project could not be done without the expertise of the Alabama Department of Public Health Epidemiology Department, the Alabama Cancer Registry and Justin T. George, director of Cancer Epidemiology, ADPH Cancer Prevention and Control Division. We greatly appreciate the work they have done in providing the American Cancer Society with the data for this report. We also acknowledge the American Cancer Society's support in editing and reviewing the project. We hope that you find the information useful and that it will help you plan more effective, targeted programs to help reduce the cancer burden in Alabama.

In the fight,

Angela Lee Davis

Angela Lee Davis
Alabama Health Systems Manager
American Cancer Society, Inc.

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This publication attempts to summarize current scientific information about cancer. Except when specified, it does not represent the official policy of the American Cancer Society.

Visit the Alabama Statewide Cancer Registry website at alabamapublichealth.gov/ascr/ for additional copies of *Alabama Cancer Facts & Figures 2018-2019*.

Cancer: Basic Facts

What Is Cancer?

Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it can result in death. Although the causes of cancer are not completely understood, numerous factors are known to increase the disease's occurrence, including many that are modifiable (e.g., tobacco use and excess body weight) and those that are not (e.g., inherited genetic mutations and immune conditions). These risk factors may act simultaneously or in sequence to initiate and/or promote cancer growth.¹

Can Cancer Be Prevented?

A substantial proportion of cancers could be prevented, including all cancers caused by tobacco use and other unhealthy behaviors. According to a recent study by American Cancer Society researchers, at least 42 percent of newly diagnosed cancers in the US – about 740,000 cases in 2019 – are potentially avoidable, including the 19 percent of all cancers that are caused by smoking and the 18 percent that are caused by a combination of excess body weight, physical inactivity, excess alcohol consumption, and poor nutrition. Certain cancers caused by infectious agents, such as human papillomavirus (HPV), hepatitis B virus (HBV), hepatitis C virus (HCV), and *Helicobacter pylori* (*H. pylori*), could be prevented through behavioral changes or vaccination to avoid the infection, or treatment of the infection. Many of the more than 5 million skin cancer cases that are diagnosed annually could be prevented by protecting skin from excessive sun exposure and not using indoor tanning devices.¹

Screening can help prevent colorectal and cervical cancers by detecting precancerous lesions that can be removed. It can also detect some cancers early, when treatment is more often successful. Screening is known to help reduce mortality for cancers of the breast, colon, rectum, cervix, prostate, and lung (among current or former heavy smokers). In addition, a heightened awareness of changes in certain parts of the body, such as the breast, skin, mouth, eyes, or genitalia, may also result in the early detection of cancer.¹

Who Is at Risk of Developing Cancer?

Cancer usually develops in older people; 80 percent of all cancers in the United States are diagnosed in people 55 years of age or older. Certain behaviors also increase risk, such as smoking, having excess body weight, and drinking alcohol. In the US, approximately 39 out of 100 men and 38 out of 100 women will develop cancer during their lifetime. These probabilities are estimated based on cancer occurrence in the general population and may overestimate or underestimate individual risk because of differences in exposures (e.g., smoking), family history, and/or genetic susceptibility. For most types of cancer, risk is higher with a family history of the disease. This is thought to result primarily from the inheritance of genetic variations that confer low or moderate risk and/or similar exposures to lifestyle/environmental risk factors among family members, as opposed to inheritance of genetic alterations that confer a very high risk, which occurs much more rarely.¹

Relative risk is the strength of the relationship between exposure to a given risk factor and cancer. It is measured by comparing cancer occurrence in people with a certain exposure or trait to cancer occurrence in people without this characteristic. For example, men and women who smoke are about 25 times more likely to develop lung cancer than nonsmokers, so the relative risk of lung cancer among smokers is 25. Most relative risks are not this large. For example, women who have a mother, sister, or daughter with a history of breast cancer are about twice as likely to develop breast cancer as women who do not have this family history; in other words, their relative risk is about 2.¹



How Many New Cancer Cases Are Expected to Occur in 2019 in Alabama?

In Alabama, approximately 28,950 new cancer cases are expected to be diagnosed in 2019, which translates to about 79 people per day.¹

Estimated Number* of New Cancer Cases for Selected Cancer Sites, Alabama, 2019

Site	New Cases
All Sites	28,950
Female Breast	4,240
Uterine Cervix	240
Colon & Rectum	2,330
Uterine Corpus	760
Leukemia	840
Lung & Bronchus	4,150
Melanoma	1,420
Non-Hodgkin Lymphoma	990
Prostate	4,060
Urinary Bladder	1,100

*Rounded to the nearest 10. Excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.

Source: American Cancer Society. *Cancer Facts & Figures 2019*. Atlanta: American Cancer Society.

How Many People Are Expected to Die of Cancer in 2019 in Alabama?

In Alabama, 10,630 people are expected to die of cancer in 2019. Lung cancer will account for 2,760 deaths, more than 25 percent of all estimated cancer deaths in the state.¹

Estimated Number* of Cancer Deaths for Selected Cancer Sites, Alabama, 2019

Site	Deaths
All Sites	10,630
Brain/Nervous System	350
Female Breast	690
Colon & Rectum	930
Leukemia	380
Liver	540
Lung & Bronchus	2,760
Non-Hodgkin Lymphoma	290
Ovary	240
Pancreas	770
Prostate	510

*Rounded to the nearest 10.

Source: American Cancer Society. *Cancer Facts & Figures 2019*. Atlanta: American Cancer Society.



All Cancers

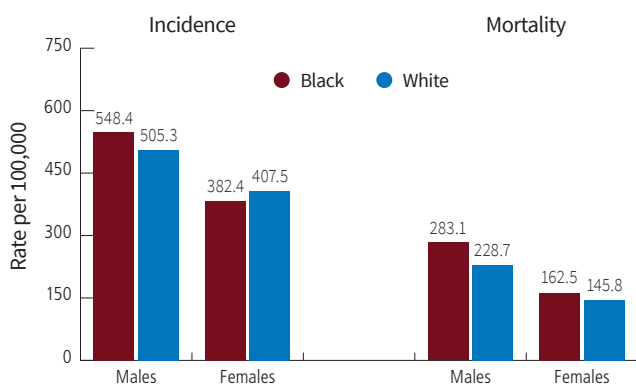
Incidence Rates

For both genders combined, Alabama's cancer incidence rate is 451.4 – significantly higher than the US rate of 447.4 (Table 11, page 27).³ Males in the state have a significantly higher cancer incidence rate than females, with a rate of 519.9 versus 402.3.³ Among males, black males have a significantly higher cancer incidence rate than white males, with a rate of 548.4 versus 505.3.³ Among females, white females have a significantly higher cancer incidence rate than black females, with a rate of 407.5 versus 382.4 (Figure 1 and Table 11, page 27).³

Mortality Rates

For both genders combined, Alabama's cancer mortality rate is 185.3 – significantly higher than the US rate of 167.1.^{2,4} Males in the state have a significantly higher cancer mortality rate than females, with a rate of 237.2 versus 148.8.² Among males, black males have a significantly higher cancer mortality rate than white males, with a rate of 283.1 versus 228.7.² Among females, black females have a significantly higher cancer mortality rate than white females, with a rate of 162.5 versus 145.8 (Figure 1 and Table 12, page 27).²

Figure 1. All Sites Cancer Incidence and Mortality Rates*, by Sex and Race, Alabama



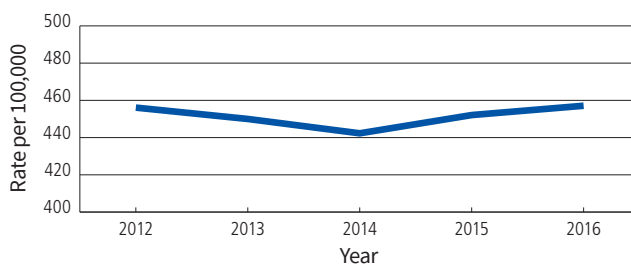
*Malignant only, with the exception of *in situ* bladder cancer, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019. Cancer Incidence (2012-2016), Cancer Mortality (2007-2016).

Trends

Between 2012 and 2016, the percentage change of cancer incidence for all sites in Alabama had an overall increase of 0.2 percent; the annual percentage change during this time was 0.1 percent.² The trend in cancer incidence rates was not found to be statistically significant (Figure 2 and Table 2, page 15).

Figure 2. Trends in Cancer Incidence Rates,* All Sites, Males and Females, Alabama, 2012-2016

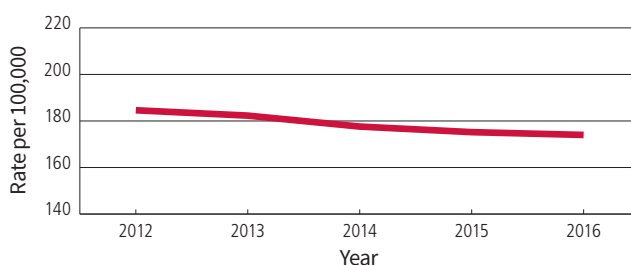


*Malignant only with the exception of *in situ* bladder cancer, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019.

Between 2012 and 2016, the percentage change of cancer mortality for all sites cancer in Alabama had an overall decrease of 5.7 percent; the annual percentage change during this time was -1.6 percent.² The decrease in cancer mortality was found to be statistically significant (Figure 3 and Table 10, page 26).

Figure 3. Trends in Cancer Mortality Rates,* All Sites, Males and Females, Alabama, 2012-2016



*Per 100,000, age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019.

Selected Cancers

Lung Cancer

2019 Estimates

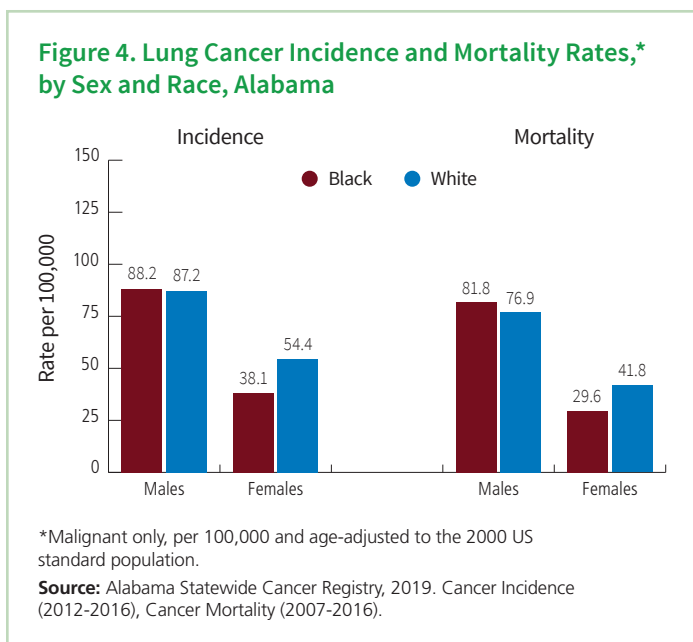
In 2019, an estimated 4,150 new cases of lung and bronchus cancer and approximately 2,760 deaths from lung and bronchus cancer are expected to occur in Alabama.¹

Incidence Rates

For both genders combined, the lung cancer incidence rate in Alabama is 66.3 – significantly higher than the US rate of 58.7 (Table 11, page 27).³ Males in the state have a significantly higher lung cancer incidence rate than females, with a rate of 87.1 versus 50.4.³ Among males in Alabama, black males have a higher lung cancer incidence rate than white males, with a rate of 88.2 versus 87.2.³ Among females in the state, white females have a significantly higher lung cancer incidence rate than black females, with a rate of 54.4 versus 38.1 (Figure 4 and Table 11, page 27).³

Mortality Rates

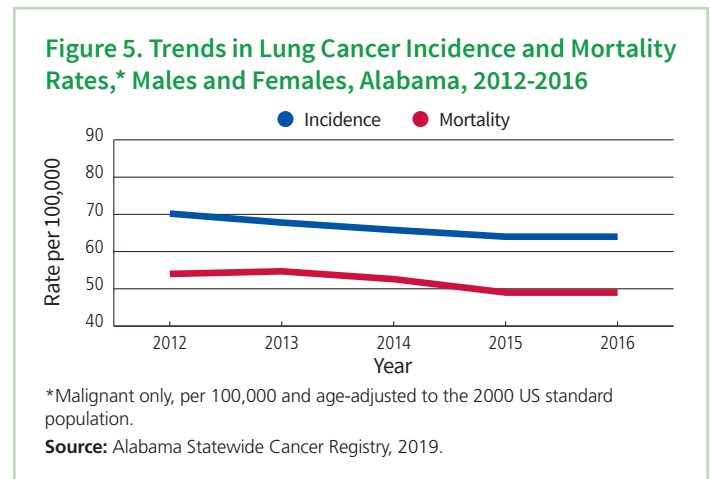
For both genders combined, the lung cancer mortality rate in Alabama is 55.4 – significantly higher than the US rate of 44.8.^{2,4} Males in the state have a significantly



higher lung cancer mortality rate than females, with a rate of 77.5 versus 39.0.² Among males in Alabama, black males have a significantly higher lung cancer mortality rate than white males, with a rate of 81.8 versus 76.9.² Among females in the state, white females have a significantly higher lung cancer mortality rate than black females, with a rate of 41.8 versus 29.6 (Figure 4 and Table 12, page 27).²

Trends

Between 2012 and 2016, the percentage change for lung cancer incidence in Alabama had an overall decrease of 8.8 percent; the annual percentage change during this time was -2.4 percent.² For lung cancer mortality between 2012 and 2016, the percentage change had an overall decrease of 9.3 percent; the annual percentage change during this time was -3.0 percent.² The decreases in incidence rates and mortality rates were found to be statistically significant (Figure 5 and Table 2, page 15, and Table 10, page 26).



Risk Factors

Cigarette smoking is by far the most important risk factor for lung cancer; 81 percent of lung cancer deaths in the US are still caused by smoking. Risk increases with both quantity and duration of smoking. Cigar and pipe smoking also increase risk. Exposure to radon gas, which is released from soil and can accumulate in indoor air, is thought to be the second-leading cause of lung cancer in the US. Other risk factors include exposure to secondhand smoke, asbestos (particularly among

smokers), certain metals (chromium, cadmium, arsenic), some organic chemicals, radiation, air pollution, and diesel exhaust. Specific occupational exposures that increase risk include rubber manufacturing, paving, roofing, painting, and chimney sweeping.¹

Tobacco Use

Alabama adults and youth have higher rates of cigarette smoking than the national averages. While 20.9 percent of Alabama adults and 14.0 percent of Alabama youth smoke, the national averages are 16.3 percent and 10.8 percent, respectively.⁵ Adults with low levels of education have the highest rates of cigarette smoking in the state.⁵ (See Table 13, page 28 for additional information on smoking rates in Alabama and the US.)

Colorectal Cancer

2019 Estimates

In 2019, an estimated 2,330 new cases of colorectal cancer and approximately 930 colorectal cancer deaths are expected to occur in Alabama.¹

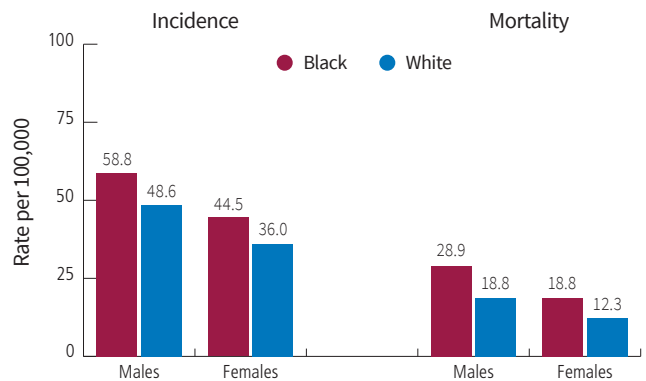
Incidence Rates

For both genders combined, the colorectal cancer incidence rate in Alabama is 43.9 – significantly higher than the US rate of 38.8 (Table 11, page 27).³ Males in the state have a significantly higher colorectal cancer incidence rate than females, with a rate of 50.8 versus 38.2.³ Among males in Alabama, black males have a significantly higher colorectal cancer incidence rate than white males, with a rate of 58.8 versus 48.6.³ Among females in the state, black females have a significantly higher colorectal cancer incidence rate than white females, with a rate of 44.5 versus 36.0 (Figure 6 and Table 11, page 27).³

Mortality Rates

For both genders combined, the colorectal cancer mortality rate in Alabama is 16.6 – significantly higher than the US rate of 14.9.^{2,4} Males in the state have a significantly higher colorectal cancer mortality rate than females, with a rate of 20.5 versus 13.6.² Among males in Alabama, black males have a significantly higher colorectal cancer mortality rate than white males, with

Figure 6. Colorectal Cancer Incidence and Mortality Rates,* by Sex and Race, Alabama



*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

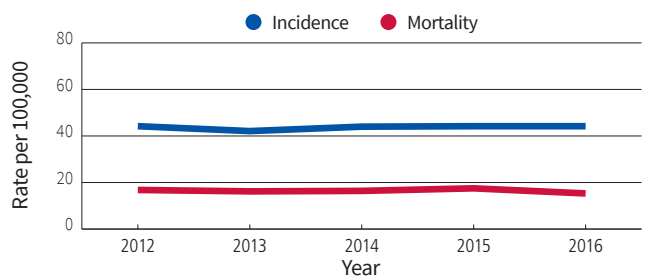
Source: Alabama Statewide Cancer Registry, 2019. Cancer Incidence (2012-2016), Cancer Mortality (2007-2016).

a rate of 28.9 versus 18.8.² Among females in the state, black females have a significantly higher colorectal cancer mortality rate than white females, with a rate of 18.8 versus 12.3 (Figure 6 and Table 12, page 27).²

Trends

Between 2012 and 2016, the percentage change for colorectal cancer incidence in Alabama had an overall decrease of 0.7 percent; the annual percentage change during this time was -0.5 percent.² For colorectal cancer mortality between 2012 and 2016, the percentage change had an overall decrease of 10.2 percent; the annual percentage change during this time was -2.8 percent.² Neither trend was statistically significant (Figure 7, Table 2, page 15, and Table 10, page 26).

Figure 7. Trends in Colorectal Cancer Incidence and Mortality Rates,* Males and Females, Alabama, 2012-2016



*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019.

Risk Factors

Based on a study by American Cancer Society researchers, more than half (55 percent) of colorectal cancers in the US are attributable to potentially modifiable risk factors. Modifiable factors that increase risk include obesity, physical inactivity, long-term smoking, high consumption of red or processed meat, low calcium intake, moderate to heavy alcohol consumption, and very low intake of fruits and vegetables and whole-grain fiber. Hereditary and medical factors that increase risk include a personal or family history of colorectal cancer and/or polyps (adenomatous), certain inherited genetic conditions (e.g., Lynch syndrome), a personal history of chronic inflammatory bowel disease (ulcerative colitis or Crohn's disease), and type 2 diabetes.¹

Prevention and Early Detection

Screening can prevent colorectal cancer through the detection and removal of precancerous growths, as well as detect cancer at an early stage, when treatment is usually less extensive and more successful. Regular adherence to either of the two types of testing (stool or structural exams) over a lifetime of screening results in a similar reduction in premature colorectal cancer death. New guidelines from the American Cancer Society recommend that men and women at average risk for colorectal cancer begin screening at 45 years of age and continue up to age 85 depending on health status/life expectancy, with more individualized decision making from ages 76 to 85 based on patient preferences and prior screening history.¹ When colorectal cancers are detected at an early, localized stage, the 5-year survival rate is 90 percent; however, only 39 percent of colorectal cancer cases are diagnosed at this stage.¹ Alabama adults 50 years of age and older have slightly higher rates of colonoscopy or sigmoidoscopy but lower rates of at home stool-based tests compared to the national average.⁵ Adults with low education have the lowest screening rates for colonoscopy and sigmoidoscopy while white males and females have the lowest rates for at home stool-based tests.⁵ (See page 13 for the American Cancer Society's screening guidelines for the early detection of colorectal cancer and Table 14, page 28 for more information on colorectal cancer screening rates in Alabama and the US.)

Melanoma

2019 Estimate

In 2019, an estimated 1,420 new cases of melanoma are expected to occur in Alabama.¹

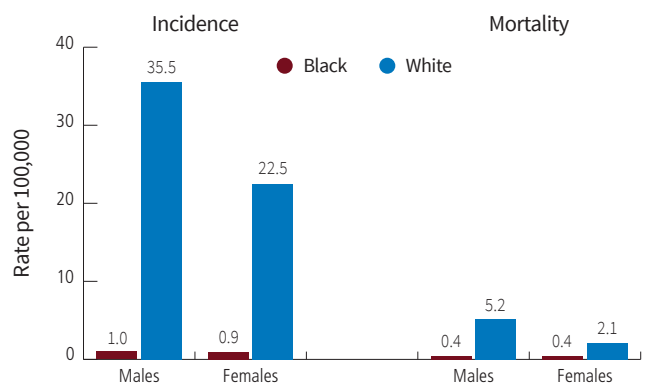
Incidence Rates

For both genders combined, the melanoma incidence rate in Alabama is 21.4 – lower than the US rate of 21.6 (Table 11, page 27).³ Males in the state have a significantly higher melanoma incidence rate than females, with a rate of 28.3 versus 16.6.³ Among males in Alabama, white males have a significantly higher melanoma incidence rate than black males, with a rate of 35.5 versus 1.0.³ Among females in the state, white females have a significantly higher melanoma incidence rate than black females, with a rate of 22.5 versus 0.9 (Figure 8 and Table 11, page 27).³

Mortality Rates

For both genders combined, the melanoma mortality rate in Alabama is 2.7 – roughly the same as the US rate of 2.6.^{2,4} Males in the state have a significantly higher melanoma mortality rate than females, with a rate of 4.2 versus 1.6.³ Among males in Alabama, white males have a significantly higher melanoma mortality rate than black males, with a rate of 5.2 versus 0.4.³ Among females in the

Figure 8. Melanoma Incidence and Mortality Rates,* by Sex and Race, Alabama



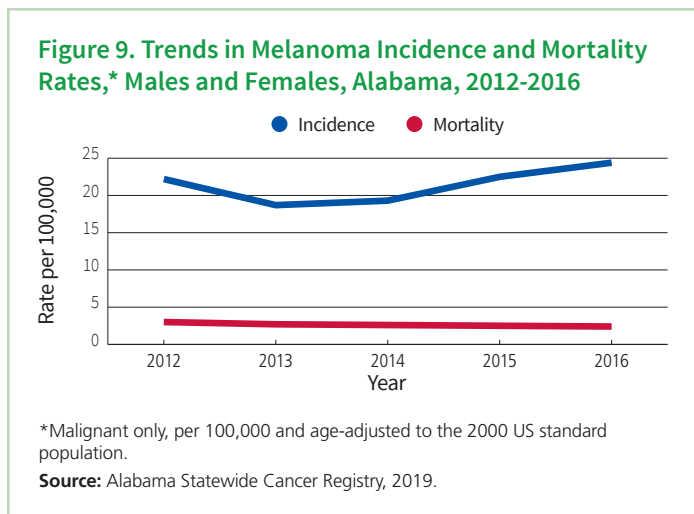
*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019. Cancer Incidence (2012-2016), Cancer Mortality (2007-2016).

state, white females have a significantly higher melanoma mortality rate than black females, with a rate of 2.1 versus 0.4 (Figure 8 and Table 12, page 27).³

Trends

Between 2012 and 2016, the percentage change for melanoma incidence in Alabama had an overall increase of 9.9 percent; the annual percentage change during this time was 3.8 percent.² For melanoma mortality between 2012 and 2016, the percentage change had an overall decrease of 21.0 percent; the annual percentage change during this time was -5.2 percent.² The trend in mortality rates was statistically significant (Figure 9, Table 2, page 15, and Table 10, page 26).



Risk Factors

For melanoma, major risk factors include a personal or family history of melanoma and the presence of atypical, large, or numerous (more than 50) moles. Heavy exposure to ultraviolet (UV) radiation, from sunlight or the use of indoor tanning, is a risk factor for all types of skin cancer, and indoor tanning devices are classified as carcinogenic by the International Agency for Research on Cancer. Risk is also increased for people who are sun-sensitive (e.g., sunburn easily or have natural blond or red hair color) and those who have a history of excessive sun exposure (including sunburns) or skin cancer. People with a

weakened immune system are also at increased risk for skin cancer.¹

Early Detection

The best way to detect skin cancer early is to be aware of new or changing skin growths, particularly those that look unusual. Any new lesions, or a progressive change in a lesion's appearance (size, shape, or color, etc.), should be evaluated promptly by a physician. The ABCDE rule outlines warning signs of the most common type of melanoma: A is for asymmetry (one half of the mole does not match the other half); B is for border irregularity (the edges are ragged, notched, or blurred); C is for color (the pigmentation is not uniform); D is for diameter greater than 6 millimeters (about the size of a pencil eraser); and E is for evolution, meaning a change in the mole's appearance over time. Not all melanomas have these signs, so be alert for any new or changing skin growths or spots. If detected at its earliest stages and treated properly, melanoma is highly curable.¹ When detected at a localized stage, the 5-year survival rate is 98 percent.¹

Prostate Cancer

2019 Estimates

In 2019, an estimated 4,060 new cases of prostate cancer and approximately 510 prostate cancer deaths are expected to occur in Alabama.¹

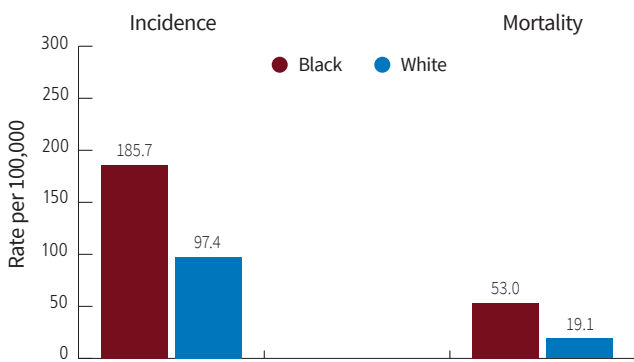
Incidence Rates

The prostate cancer incidence rate in Alabama is 119.4 – significantly higher than the US rate of 104.7 (Table 11).³ Black males in the state have a significantly higher prostate cancer incidence rate than white males, with a rate of 185.7 versus 97.4 (Figure 10 and Table 11, page 27).³

Mortality Rates

The prostate cancer mortality rate in Alabama is 24.6 – significantly higher than the US rate of 20.6.^{2,4} Black males in the state have a significantly higher prostate cancer mortality rate than white males, with a rate of 53.0 versus 19.1 (Figure 10, page 8 and Table 12, page 27).²

Figure 10. Prostate Cancer Incidence and Mortality Rates,* Males, by Race, Alabama



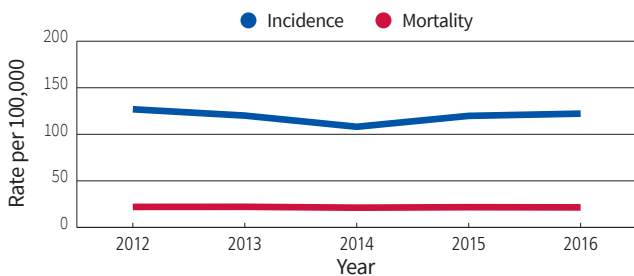
*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019. Cancer Incidence (2012-2016), Cancer Mortality (2007-2016).

Trends

Between 2012 and 2016, the percentage change for prostate cancer incidence in Alabama had an overall decrease of 3.7 percent; the annual percentage change during this time was -0.7 percent. For prostate cancer mortality between 2012 and 2016, the percentage change had an overall decrease of 2.3 percent; the annual percentage change during this time was -0.7 percent. Neither trend was statistically significant (Figure 11, Table 2, page 15, and Table 10, page 26).²

Figure 11. Trends in Prostate Cancer Incidence and Mortality Rates,* Males, Alabama, 2012-2016



*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019.

Risk Factors

Well-established risk factors for prostate cancer are increasing age, African ancestry, a family history of the disease, and certain inherited genetic conditions (e.g.,

Lynch syndrome and *BRCA1* and *BRCA2* mutations). Black men in the US and the Caribbean have the highest documented prostate cancer incidence rates in the world. Genetic studies suggest that strong familial predisposition may be responsible for 5 percent to 10 percent of prostate cancers. There is accumulating evidence that smoking increases the risk of fatal prostate cancer and excess body weight increases risk of aggressive and fatal prostate cancer.¹

Early Detection

No organizations presently endorse routine prostate cancer screening for men at average risk because of concerns about the high rate of overdiagnosis (detecting disease that would never have caused symptoms or harm), along with the high potential for serious side effects associated with prostate cancer treatment. Rather, many organizations recommend an “informed decision-making” approach whereby men are educated about screening and encouraged to make a personal choice. The American Cancer Society recommends that beginning at age 50, men who are at average risk of prostate cancer and have a life expectancy of at least 10 years have a conversation with their health care provider about the benefits and limitations of PSA testing and make an informed decision about whether to be tested based on their personal values and preferences. Men at high risk of developing prostate cancer (black men and those with a close relative diagnosed with prostate cancer before the age of 65) should have this discussion beginning at age 45, and men at even higher risk (those with several close relatives diagnosed at an early age) should have this discussion beginning at 40. The 5-year survival rate for prostate cancer is almost 100 percent when the disease is diagnosed and treated at the local and regional stages.¹ Males ages 65 and older in Alabama have higher rates of PSA screening than the US averages.⁵ Males of low education have the lowest rates of PSA screening of all groups.⁵ (See page 13 for the American Cancer Society’s screening guidelines concerning the early detection of prostate cancer and Table 16, page 29 for more information on prostate cancer screening rates in Alabama and the US.)

Breast Cancer

2019 Estimates

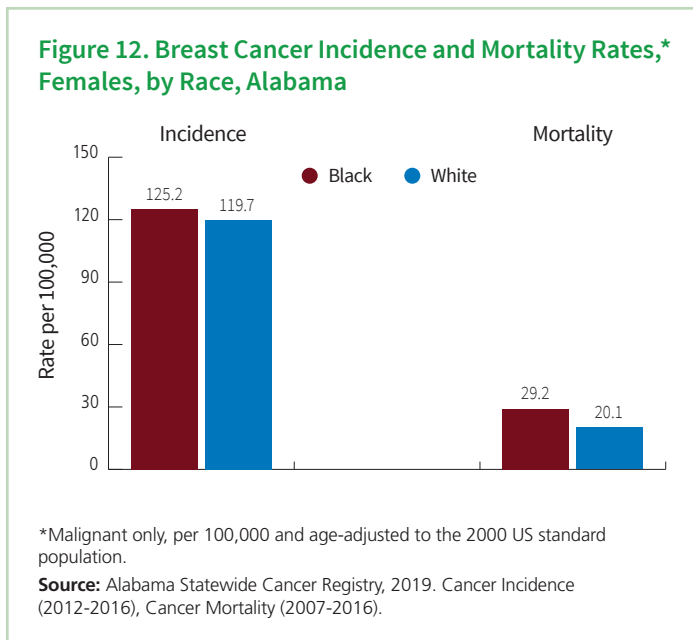
In 2019, an estimated 4,240 new cases of female breast cancer and approximately 690 female breast cancer deaths are expected to occur in Alabama.¹

Incidence Rates

The female breast cancer incidence rate in Alabama is 122.0 – significantly lower than the US rate of 124.9 (Table 11, page 27).³ Black females in the state have a significantly higher breast cancer incidence rate than white females, with a rate of 125.2 versus 119.7 (Figure 12 and Table 11, page 27).³

Mortality Rates

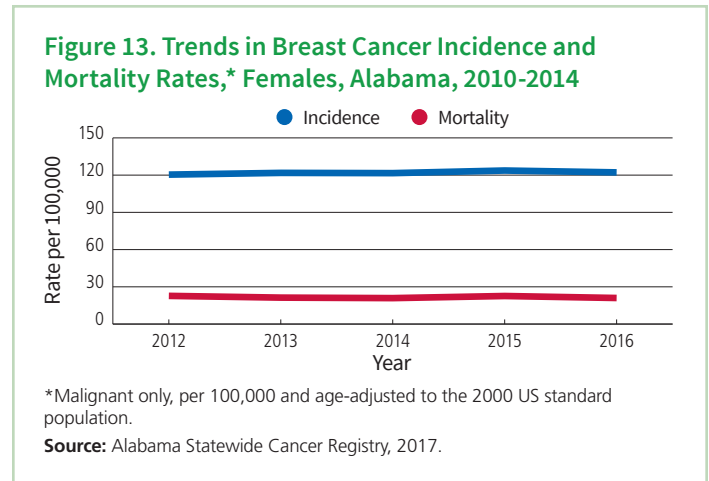
The female breast cancer mortality rate in Alabama is 22.2 – significantly higher than the US rate of 21.4.^{2,4} Black females in the state have a significantly higher breast cancer mortality rate than white females, with a rate of 29.2 versus 20.1.² (See Figure 12 and Table 12, page 27.)



Trends

Between 2012 and 2016, breast cancer incidence rates in Alabama were almost constant, with the percentage change having an overall increase of only 1.5 percent; the

annual percentage change during this time was 0.5 percent.² For breast cancer mortality between 2012 and 2016, the percentage change had an overall decrease of 7.4 percent; the annual percentage change during this time was -0.9 percent.² Neither trend was statistically significant (Figure 13, Table 2, page 15, and Table 10, page 26).



Risk Factors

Older age and being a woman are the strongest risk factors for breast cancer. Potentially modifiable factors that increase risk include weight gain after the age of 18 and/or being overweight or obese (for postmenopausal breast cancer); menopausal hormone therapy (combined estrogen and progestin); alcohol consumption; and physical inactivity. Breastfeeding for at least one year decreases risk. Non-modifiable factors that increase risk include a personal or family history of breast or ovarian cancer; inherited mutations (genetic alterations) in breast cancer susceptibility genes (e.g., *BRCA1* or *BRCA2*); certain benign breast conditions, such as atypical hyperplasia; a history of ductal carcinoma in situ (DCIS) or lobular carcinoma in situ (LCIS); high breast tissue density (the amount of glandular tissue relative to fatty tissue measured on a mammogram); and high-dose radiation to the chest at a young age (e.g., for treatment of lymphoma). Reproductive factors that increase risk include a long menstrual history (menstrual periods that start early and/or end late in life); not having children or having children after age 30; high natural levels of sex hormones; and recent use of oral contraceptives.¹

Early Detection

Mammography is a low-dose x-ray procedure used to detect breast cancer at an early stage. Early diagnosis reduces the risk of dying from breast cancer and provides more treatment options. However, like any screening tool, mammography is not perfect. It can miss cancer (false negative) or appear abnormal in the absence of cancer (false positive); about 1 in 10 women who are screened have an abnormal mammogram, but only about 5 percent of these women have cancer. Other potential harms include detection of cancers and in situ lesions (e.g., DCIS) that would never have progressed or caused harm (i.e., overdiagnoses), and cumulative radiation exposure, which increases breast cancer risk. For women at average risk of breast cancer, the American Cancer Society recommends that those 40 to 44 years of age have the option to begin annual mammography; those 45 to 54 undergo annual mammography; and those 55 years of age and older may transition to biennial mammography or continue annual mammography. Women should continue mammography as long as overall health is good and life expectancy is 10 or more years. For some women at high risk of breast cancer, annual magnetic resonance imaging (MRI) is recommended to accompany mammography, typically starting at age 30. When the disease is detected and diagnosed at the localized stage, the relative 5-year survival rate is 99 percent, compared to a rate of only 27 percent for breast cancers detected at the distant stage.¹ Alabama females have a similar rate of mammography screening compared to US females.⁵ Black females in the state have a higher rate of mammography screening than white females.⁵ Females with a low education have the lowest rate of mammography of all age groups and races.⁵ (See page 13 for the American Cancer Society's screening guidelines for the early detection of breast cancer and Table 15, page 28 for more information on breast cancer screening rates in Alabama and the US.)

Cervical Cancer

2019 Estimate

In 2019, an estimated 240 new cases of cervical cancer are expected to occur in Alabama.¹

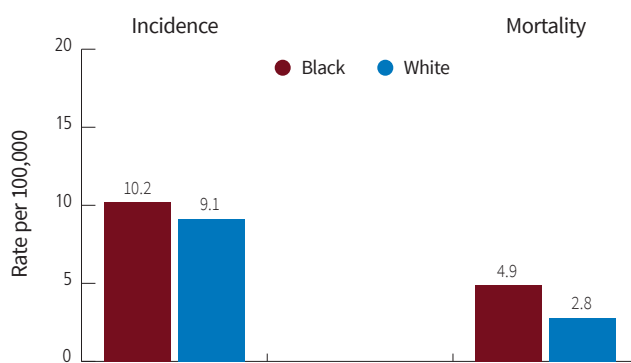
Incidence Rates

The cervical cancer incidence rate in Alabama is 9.3 – significantly higher than the US rate of 7.6 (Table 11, page 27).³ Black females in the state have a significantly higher cervical cancer incidence rate than white females, with a rate of 10.2 versus 9.1 (Figure 14 and Table 11, page 27).³

Mortality Rates

The cervical cancer mortality rate in Alabama is 3.3 – significantly higher than the US rate of 2.3.^{2,4} Black females in the state have a significantly higher cervical cancer mortality rate than white females, with a rate of 4.9 versus 2.8 (Figure 14 and Table 12, page 27).²

Figure 14. Cervical Cancer Incidence and Mortality Rates,* Females, by Race, Alabama



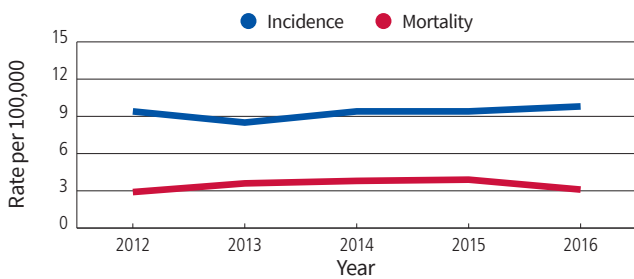
*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019. Cancer Incidence (2012-2016), Cancer Mortality (2007-2016).

Trends

Between 2012 and 2016, the percentage change for cervical cancer incidence in Alabama had an overall increase of 3.7 percent, and the annual percentage change during this time was 1.6 percent.² For cervical cancer mortality between 2012 and 2016, the percentage change had an overall increase of 5.0 percent; the annual percentage change during this time was 1.7 percent.² Neither trend was statistically significant (Figure 15, Table 2, page 15, and Table 10, page 26).

Figure 15. Trends in Cervical Cancer Incidence and Mortality Rates,* Females, Alabama, 2012-2016



*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2019.

Risk Factors

Almost all cervical cancers are caused by persistent infection with certain types of human papillomavirus (HPV). HPV infections are common in healthy women and only rarely cause cervical cancer. Although women who begin having sex at an early age or who have had many sexual partners are at increased risk for HPV infection and cervical cancer, a woman may be infected with HPV even if she has had only one sexual partner. Several factors are known to increase the risk of both persistent HPV infection and progression to cancer, including a suppressed immune system, a high number of childbirths, and cigarette smoking. Long-term use of oral contraceptives is also associated with increased risk that gradually declines after cessation.¹

Prevention

Vaccines that protect against the types of HPV that cause 90 percent of cervical cancers, as well as several other diseases and cancers, are routinely recommended for children ages 11 to 12. While the vaccines are available for use in ages 9 to 26, the Centers for Disease Control and Prevention (CDC) recommends vaccinating all boys and girls by age 13. In October 2016, the CDC reduced the recommended number of vaccine doses from three to two when the first dose was given before age 15, while three doses are required for full protection when the first dose was given after the 15th birthday. Unfortunately, the immunization rate remains low in the US; in 2017, 53 percent of girls and 44 percent of boys 13-17 years of age were up to date with the HPV vaccination series.

HPV vaccines cannot protect against established infections; nor do they protect against all types of HPV, which is why vaccinated women should still be screened for cervical cancer. Screening can also prevent cervical cancer through detection and treatment of precancerous lesions, which are now detected far more frequently than invasive cancer. The Pap test is a simple procedure in which a small sample of cells is collected from the cervix and examined under a microscope. The HPV test, which detects HPV infections associated with cervical cancer, can forecast cervical cancer risk many years into the future and is currently recommended for use in conjunction with the Pap test in women ages 30 to 65, or when Pap test results are uncertain. The HPV test can also identify women at risk for a type of cervical cancer (adenocarcinoma) that is often missed by Pap tests and accounts for 29 percent of cases.

Early Detection

In addition to preventing cervical cancer, screening can detect invasive cancer early, when treatment is more successful. Most women diagnosed with cervical cancer have not been screened recently.

The American Cancer Society, in collaboration with the American Society for Colposcopy and Cervical Pathology and the American Society for Clinical Pathology, recommends screening for women ages 21 to 65, with an emphasis on the incorporation of HPV testing in addition to the Pap test for ages 30 to 65. When detected at a localized stage, the 5-year survival rate for invasive cervical cancer is 92 percent.¹ As a group, females 18 years of age and older in Alabama have a similar rate of cervical cancer screening compared to the US average.⁵ Females of low education have the lowest rate of screening for all ages and races.⁵ (See page 13 for the American Cancer Society's screening guidelines for the early detection of cervical cancer and Table 17, page 29 for more information on cervical cancer screening rates in Alabama.)

American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention

Individual Choices

Achieve and maintain a healthy weight throughout life.

- Be as lean as possible throughout life without being underweight.
- Avoid excess weight gain at all ages. For those who are currently overweight or obese, losing even a small amount of weight has health benefits and is a good place to start.
- Engage in regular physical activity and limit consumption of high-calorie foods and beverages as key strategies for maintaining a healthy weight.

Adopt a physically active lifestyle.

- Adults should engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity each week, or an equivalent combination, preferably spread throughout the week.
- Children and adolescents should engage in at least 1 hour of moderate- or vigorous-intensity physical activity each day, with vigorous-intensity activity at least 3 days each week.
- Limit sedentary behavior such as sitting, lying down, and watching television and other forms of screen-based entertainment.
- Doing any intentional physical activity above usual activities, no matter what the level of activity, can have many health benefits.

Consume a healthy diet, with an emphasis on plant foods.

- Choose foods and beverages in amounts that help achieve and maintain a healthy weight.
- Limit consumption of red and processed meats.
- Eat at least 2½ cups of vegetables and fruits each day.
- Choose whole-grain instead of refined-grain products.

Limit consumption of alcoholic beverages.

- Drink no more than 1 drink per day for women or 2 per day for men.

Community Action

It is recommended that public, private, and community organizations work collaboratively at national, state, and local levels to apply policy and environmental changes that:

- Increase access to affordable, healthy foods in communities, worksites, and schools; decrease access to and marketing of foods and beverages of low nutritional value, particularly to youth.
- Provide safe, enjoyable, and accessible environments for physical activity in schools and worksites, and for transportation and recreation in communities.



American Cancer Society Recommendations for the Early Detection of Cancer in Average-risk Asymptomatic People*

Cancer Site	Population	Test or Procedure	Recommendation
Breast	Women, ages 40-54	Mammography	Women should have the opportunity to begin annual screening between the ages of 40 and 44. Women should undergo regular screening mammography starting at age 45. Women ages 45 to 54 should be screened annually.
	Women, ages 55+		Transition to biennial screening, or have the opportunity to continue annual screening. Continue screening as long as overall health is good and life expectancy is 10+ years.
Cervix	Women, ages 21-29	Pap test	Screening should be done every 3 years with conventional or liquid-based Pap tests.
	Women, ages 30-65	Pap test & HPV DNA test	Screening should be done every 5 years with both the HPV test and the Pap test (preferred), or every 3 years with the Pap test alone (acceptable).
	Women, ages 66+	Pap test & HPV DNA test	Women ages 66+ who have had ≥3 consecutive negative Pap tests or ≥2 consecutive negative HPV and Pap tests within the past 10 years, with the most recent test occurring in the past 5 years should stop cervical cancer screening.
	Women who have had a total hysterectomy		Stop cervical cancer screening.
Colorectal[†]	Men and women, ages 50+	Guaiac-based fecal occult blood test (gFOBT) with at least 50% sensitivity or fecal immunochemical test (FIT) with at least 50% sensitivity, OR	Annual testing of spontaneously passed stool specimens. Single stool testing during a clinician office visit is not recommended, nor are “throw in the toilet bowl” tests. In comparison with guaiac-based tests for the detection of occult blood, immunochemical tests are more patient-friendly and are likely to be equal or better in sensitivity and specificity. There is no justification for repeating FOBT in response to an initial positive finding.
		Stool DNA test, OR	Every 3 years
		Flexible sigmoidoscopy (FSIG), OR	Every 5 years alone, or consideration can be given to combining FSIG performed every 5 years with a highly sensitive gFOBT or FIT performed annually.
		Double-contrast barium enema, OR	Every 5 years
		Colonoscopy, OR	Every 10 years
CT Colonography	Every 5 years		
Endometrial	Women at menopause		Women should be informed about risks and symptoms of endometrial cancer and encouraged to report unexpected bleeding to a physician.
Lung	Current or former smokers ages 55-74 in good health with 30+ pack-year history	Low-dose helical CT (LDCT)	Clinicians with access to high-volume, high-quality lung cancer screening and treatment centers should initiate a discussion about annual lung cancer screening with apparently healthy patients ages 55-74 who have at least a 30 pack-year smoking history, and who currently smoke or have quit within the past 15 years. A process of informed and shared decision making with a clinician related to the potential benefits, limitations, and harms associated with screening for lung cancer with LDCT should occur before any decision is made to initiate lung cancer screening. Smoking cessation counseling remains a high priority for clinical attention in discussions with current smokers, who should be informed of their continuing risk of lung cancer. Screening should not be viewed as an alternative to smoking cessation.
Prostate	Men, ages 50+	Prostate-specific antigen test with or without digital rectal examination	Men who have at least a 10-year life expectancy should have an opportunity to make an informed decision with their health care provider about whether to be screened for prostate cancer, after receiving information about the potential benefits, risks, and uncertainties associated with prostate cancer screening. Prostate cancer screening should not occur without an informed decision-making process. African American men should have this conversation with their provider beginning at age 45.

CT-Computed tomography. *All individuals should become familiar with the potential benefits, limitations, and harms associated with cancer screening.
[†]All positive tests (other than colonoscopy) should be followed up with colonoscopy.

Cancer Incidence Tables

Table 1. Alabama Cancer Incidence Rates and Counts, by Site and Sex, 2007-2016 Combined

Males	Rate	Count	Females	Rate	Count
All Sites	545.5	136,822	All Sites	401.2	119,473
Oral Cavity and Pharynx	20.1	5,210	Oral Cavity and Pharynx	7.1	2,137
Digestive System	103.1	25,749	Digestive System	67.7	20,686
Esophagus	8.3	2,162	Esophagus	1.7	532
Stomach	8.8	2,140	Stomach	4.8	1,459
Small Intestine	2.7	675	Small Intestine	2.2	670
Colon and Rectum	53.2	13,150	Colon and Rectum	38.6	11,732
Colon Excluding Rectum	38.2	9,346	Colon Excluding Rectum	29.8	9,090
Rectum	15.0	3,804	Rectum	8.8	2,642
Anus, Anal Canal and Anorectum	1.5	364	Anus, Anal Canal and Anorectum	2.1	641
Liver and Intrahepatic Bile Duct	10.7	2,844	Liver and Intrahepatic Bile Duct	3.7	1,140
Gallbladder	0.7	164	Gallbladder	1.1	332
Pancreas	14.7	3,651	Pancreas	11.0	3,432
Other Digestive Organs	0.4	90	Other Digestive Organs	0.2	71
Respiratory System	103.2	25,926	Respiratory System	55.1	17,231
Larynx	8.3	2,187	Larynx	1.7	525
Lung and Bronchus	93.6	23,429	Lung and Bronchus	52.7	16,510
Bones and Joints	1.1	255	Bones and Joints	0.9	231
Soft Tissue Including Heart	3.8	889	Soft Tissue Including Heart	3.0	810
Skin (Excluding Basal and Squamous)	30.3	7,268	Skin (Excluding Basal and Squamous)	17.3	4,843
Melanoma of the Skin	28.3	6,829	Melanoma of the Skin	16.2	4,542
Other Non-Epithelial Skin	1.9	439	Other Non-Epithelial Skin	1.0	301
Breast	1.4	350	Breast	120.8	35,656
Female Genital System	*	*	Female Genital System	43.9	12,816
Cervix Uteri	*	*	Cervix Uteri	9.0	2,265
Corpus and Uterus, NOS	*	*	Corpus and Uterus, NOS	19.2	5,870
Corpus Uteri	*	*	Corpus Uteri	18.2	5,583
Uterus, NOS	*	*	Uterus, NOS	1.0	287
Ovary	*	*	Ovary	11.8	3,520
Vagina	*	*	Vagina	0.8	252
Vulva	*	*	Vulva	2.6	755
Other Female Genital Organs	*	*	Other Female Genital Organs	0.5	154
Male Genital System	142.1	37,313	Male Genital System	*	*
Prostate	136.4	36,039	Prostate	*	*
Testis	4.5	993	Testis	*	*
Penis	0.9	228	Penis	*	*
Other Male Genital Organs	0.2	53	Other Male Genital Organs	*	*
Urinary System	57.2	13,910	Urinary System	20.1	6,140
Urinary Bladder	33.3	7,868	Urinary Bladder	7.6	2,379
Kidney and Renal Pelvis	22.7	5,770	Kidney and Renal Pelvis	12.0	3,600
Ureter	0.9	203	Ureter	0.4	121
Other Urinary Organs	0.3	69	Other Urinary Organs	0.1	40
Eye and Orbit	1.3	301	Eye and Orbit	0.8	226
Brain and Other Nervous System	7.9	1,921	Brain and Other Nervous System	5.6	1,561
Endocrine System	5.6	1,385	Endocrine System	13.8	3,615
Thyroid	4.8	1,188	Thyroid	13.1	3,424
Other Endocrine Including Thymus	0.8	197	Other Endocrine Including Thymus	0.7	191
Lymphoma	22.4	5,383	Lymphoma	15.8	4,648
Hodgkin Lymphoma	2.7	635	Hodgkin Lymphoma	2.0	510
Non-Hodgkin Lymphoma	19.7	4,748	Non-Hodgkin Lymphoma	13.7	4,138
Myeloma	8.0	1,989	Myeloma	5.6	1,721
Leukemia	15.9	3,745	Leukemia	9.8	2,838
Lymphocytic Leukemia	7.5	1,796	Lymphocytic Leukemia	4.3	1,244
Acute Lymphocytic Leukemia	1.5	349	Acute Lymphocytic Leukemia	1.2	273
Chronic Lymphocytic Leukemia	5.4	1,295	Chronic Lymphocytic Leukemia	2.8	897
Myeloid and Monocytic Leukemia	7.0	1,659	Myeloid and Monocytic Leukemia	4.7	1,336
Acute Myeloid Leukemia	4.7	1,108	Acute Myeloid Leukemia	3.1	900
Chronic Myeloid Leukemia	1.8	428	Chronic Myeloid Leukemia	1.2	336
Other Leukemia	1.4	290	Other Leukemia	0.8	258
Miscellaneous	20.0	4,735	Miscellaneous	13.7	4,178

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates and counts are for malignant cases only with the exception of urinary bladder and groups that contain urinary bladder.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 2. Trends in Alabama Cancer Incidence Rates, Selected Sites, 2012-2016

Females

Breast	P-Value 0.171				Cervix	P-Value 0.364			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	1.5				Total PC	3.7			
Total APC	0.5		-0.3	1.3	Total APC	1.6		-3.2	6.7
2012 Rate	120.4	2.1	116.4	124.5	2012 Rate	9.4	0.6	8.2	10.8
2013 Rate	121.8	2.1	117.8	125.9	2013 Rate	8.5	0.6	7.4	9.8
2014 Rate	121.6	2.1	117.6	125.7	2014 Rate	9.4	0.6	8.2	10.7
2015 Rate	123.7	2.1	119.7	127.9	2015 Rate	9.4	0.6	8.2	10.7
2016 Rate	122.2	2.1	118.2	126.3	2016 Rate	9.8	0.6	8.6	11.1

Males

Prostate	P-Value 0.746				All Sites	P-Value 0.839			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	-3.7				Total PC	-3.7			
Total APC	-0.7		-7.0	6.0	Total APC	-0.7		-7.0	6.0
2012 Rate	126.9	2.2	122.6	131.4	2012 Rate	126.9	2.2	122.6	131.4
2013 Rate	120.1	2.2	115.9	124.4	2013 Rate	120.1	2.2	115.9	124.4
2014 Rate	108.1	2.0	104.2	112.1	2014 Rate	108.1	2.0	104.2	112.1
2015 Rate	119.8	2.1	115.7	124.0	2015 Rate	119.8	2.1	115.7	124.0
2016 Rate	122.2	2.1	118.2	126.4	2016 Rate	122.2	2.1	118.2	126.4

Males and Females

Colorectal	P-Value 0.354				Lung	P-Value 0.008			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	-0.7				Total PC	-0.7			
Total APC	-0.5		-1.9	0.9	Total APC	-0.5		-1.9	0.9
2012 Rate	44.1	0.9	42.3	45.9	2012 Rate	44.1	0.9	42.3	45.9
2013 Rate	44.4	0.9	42.6	46.2	2013 Rate	44.4	0.9	42.6	46.2
2014 Rate	44.4	0.9	42.7	46.2	2014 Rate	44.4	0.9	42.7	46.2
2015 Rate	42.9	0.9	41.2	44.7	2015 Rate	42.9	0.9	41.2	44.7
2016 Rate	43.8	0.9	42.0	45.5	2016 Rate	43.8	0.9	42.0	45.5

Males and Females

Melanoma	P-Value 0.341				Oral	P-Value 0.173			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	9.9				Total PC	3.6			
Total APC	3.8		-6.5	15.2	Total APC	1.0		-0.8	2.9
2012 Rate	22.2	0.7	20.9	23.5	2012 Rate	13.2	0.5	12.3	14.2
2013 Rate	18.7	0.6	17.6	20.0	2013 Rate	13.0	0.5	12.0	13.9
2014 Rate	19.3	0.6	18.1	20.5	2014 Rate	13.0	0.5	12.1	14.0
2015 Rate	22.5	0.6	21.2	23.8	2015 Rate	13.3	0.5	12.4	14.3
2016 Rate	24.4	0.7	23.1	25.8	2016 Rate	13.7	0.5	12.7	14.7

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard; Confidence intervals are 95% for rates and trends.

Rates are for malignant cases only with the exception of All Sites, which includes bladder cancer in situ.

Percent changes were calculated using 1 year for each end point; APCs were calculated using weighted least squares method.

*The Annual Percentage Change (APC) is significantly different from zero (p<0.05).

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2012-2016.

Table 3. Alabama Cancer Incidence Rates and Counts, by County, Males and Females, All Races, 2007-2016 Combined

	All Sites		Lung		Colorectal		Oral		Melanoma	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	461.6	256,295	70.3	39,939	45.1	24,882	13.0	7,347	13.0	7,347
Autauga	482.8	2,794	74.5	430	52.0	296	13.2	79	13.2	79
Baldwin	450.0	11,212	67.5	1,765	41.5	1,023	13.9	348	13.9	348
Barbour	462.8	1,522	73.2	244	52.1	168	17.7	58	17.7	58
Bibb	482.6	1,244	83.1	221	48.7	122	14.0	36	14.0	36
Blount	442.2	3,076	74.2	544	43.8	295	12.2	86	12.2	86
Bullock	482.3	606	68.7	88	50.5	65	15.8	20	15.8	20
Butler	444.0	1,168	58.9	168	46.8	125	13.5	38	13.5	38
Calhoun	467.1	6,518	80.2	1,156	50.7	704	16.1	224	16.1	224
Chambers	532.0	2,396	75.9	352	49.8	226	18.8	88	18.8	88
Cherokee	417.4	1,554	76.5	302	35.2	132	14.2	54	14.2	54
Chilton	432.7	2,190	73.7	390	36.0	183	12.0	60	12.0	60
Choctaw	429.9	824	56.7	116	49.3	95	15.2	28	15.2	28
Clarke	468.5	1,513	62.2	209	63.1	201	10.6	35	10.6	35
Clay	487.6	904	88.2	172	49.3	89	9.5	19	9.5	19
Cleburne	468.7	892	79.2	155	55.8	109	18.5	36	18.5	36
Coffee	426.9	2,536	72.6	445	29.2	170	12.4	74	12.4	74
Colbert	437.7	3,158	71.3	534	48.3	355	12.7	90	12.7	90
Conecuh	484.7	853	77.9	147	50.4	88	19.1	37	19.1	37
Coosa	425.0	663	74.2	123	41.1	61	9.6	15	9.6	15
Covington	458.7	2,379	78.3	423	52.8	277	12.3	61	12.3	61
Crenshaw	444.6	794	67.6	129	53.2	95	12.5	24	12.5	24
Cullman	433.3	4,384	71.7	758	39.4	402	15.7	162	15.7	162
Dale	465.7	2,656	79.9	471	40.9	230	17.2	99	17.2	99
Dallas	505.4	2,536	75.3	387	61.7	311	10.0	53	10.0	53
DeKalb	404.0	3,330	64.0	543	42.8	352	11.5	94	11.5	94
Elmore	488.5	4,214	77.8	671	43.5	368	15.5	136	15.5	136
Escambia	456.1	2,118	77.2	373	47.4	218	12.2	56	12.2	56
Etowah	480.9	6,314	79.8	1,084	45.7	605	15.2	205	15.2	205
Fayette	473.4	1,091	75.3	183	51.0	119	10.5	22	10.5	22
Franklin	432.0	1,616	74.2	288	43.0	163	9.8	36	9.8	36
Geneva	463.0	1,692	87.0	336	36.6	134	18.5	69	18.5	69
Greene	474.7	548	72.7	86	57.7	67	^	^	^	^
Hale	444.4	871	62.7	126	38.7	76	13.0	25	13.0	25
Henry	474.5	1,135	68.3	174	42.6	99	13.3	32	13.3	32
Houston	468.2	5,672	68.7	857	48.6	580	16.2	198	16.2	198
Jackson	463.4	3,197	81.2	595	47.3	321	12.6	87	12.6	87
Jefferson	469.4	34,845	64.6	4,824	43.6	3,225	12.0	910	12.0	910
Lamar	494.2	1,010	82.9	177	56.7	118	11.0	24	11.0	24
Lauderdale	442.2	5,289	68.2	861	44.9	527	10.9	127	10.9	127
Lawrence	492.2	2,050	86.2	371	58.3	236	13.5	55	13.5	55
Lee	410.2	5,119	55.9	670	35.8	447	12.8	160	12.8	160
Limestone	464.3	4,391	70.2	673	39.2	374	10.7	107	10.7	107
Lowndes	524.4	717	69.8	99	69.5	96	^	^	^	^
Macon	470.1	1,168	63.5	167	56.6	140	16.1	42	16.1	42
Madison	448.8	16,599	62.9	2,335	40.0	1,461	12.3	465	12.3	465
Marengo	453.0	1,208	60.7	168	56.5	150	9.5	24	9.5	24
Marion	460.1	1,929	74.0	330	47.3	197	16.0	69	16.0	69
Marshall	448.1	4,952	80.2	925	43.6	475	14.2	156	14.2	156
Mobile	464.6	21,434	72.9	3,402	48.6	2,226	12.4	583	12.4	583
Monroe	441.4	1,249	58.1	175	58.4	167	9.7	27	9.7	27
Montgomery	443.8	10,610	61.3	1,466	46.3	1,101	11.1	272	11.1	272
Morgan	485.0	6,856	76.2	1,110	43.2	606	13.7	199	13.7	199
Perry	486.9	604	68.8	92	47.5	58	^	^	^	^
Pickens	437.6	1,136	63.0	178	39.6	106	14.2	37	14.2	37
Pike	454.2	1,538	65.1	227	39.5	132	16.8	58	16.8	58
Randolph	441.3	1,343	65.1	207	49.4	149	10.8	33	10.8	33
Russell	493.6	2,907	79.9	480	52.0	299	13.6	83	13.6	83
St. Clair	461.6	4,473	77.3	767	43.3	416	13.5	135	13.5	135
Shelby	438.9	8,979	56.8	1,111	38.5	778	10.7	228	10.7	228
Sumter	444.1	707	60.4	101	53.0	83	13.9	21	13.9	21
Talladega	464.6	4,572	76.2	769	48.4	472	14.7	146	14.7	146
Tallapoosa	468.0	2,616	74.5	438	42.1	232	13.1	71	13.1	71
Tuscaloosa	470.6	8,855	69.4	1,299	45.5	855	11.4	220	11.4	220
Walker	503.1	4,365	94.8	873	43.1	367	14.5	127	14.5	127
Washington	440.0	930	65.5	140	45.1	96	11.6	24	11.6	24
Wilcox	492.6	698	68.0	100	62.6	86	12.2	18	12.2	18
Winston	453.3	1,501	86.1	298	47.9	153	14.9	52	14.9	52

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only except for All Sites, which contains in situ bladder cases.
 ^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 4. Alabama Cancer Incidence Rates and Counts, by County, Males, All Races, 2007-2016 Combined

	All Sites		Lung		Colorectal		Prostate		Oral		Melanoma	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	545.5	136,822	93.6	23,429	53.2	13,150	136.4	36,039	20.1	5,210	28.3	6,829
Autauga	547.1	1,448	97.4	245	57.6	152	116.9	320	20.7	59	32.3	89
Baldwin	513.1	6,080	82.2	1,002	48.6	564	111.7	1,411	19.7	235	41.0	464
Barbour	562.9	849	104.3	151	55.9	82	169.5	266	27.0	44	17.7	25
Bibb	562.9	678	100.6	124	62.7	72	125.9	158	22.6	30	20.5	22
Blount	514.3	1,664	94.9	320	55.7	168	105.9	365	17.7	62	32.2	97
Bullock	544.4	333	97.6	61	62.8	35	155.7	102	^	^	^	^
Butler	523.3	620	88.1	107	65.0	74	135.6	168	22.6	28	24.5	27
Calhoun	573.4	3,511	108.3	664	64.0	387	131.9	851	25.2	160	22.9	139
Chambers	634.3	1,295	103.2	211	54.3	110	170.1	367	29.5	62	20.8	42
Cherokee	501.4	889	101.9	183	45.1	80	109.5	217	23.2	41	25.3	41
Chilton	493.9	1,168	94.2	230	41.3	95	112.8	279	18.4	44	23.4	54
Choctaw	532.2	471	76.4	70	65.9	58	168.0	159	23.5	20	^	^
Clarke	560.8	818	93.8	136	75.0	108	134.9	209	17.0	25	24.4	35
Clay	572.3	499	117.0	103	57.5	50	145.6	131	15.5	15	26.8	21
Cleburne	547.3	493	96.2	88	69.8	64	102.5	98	31.6	29	22.3	19
Coffee	510.5	1,389	98.7	266	36.0	98	135.1	384	17.2	49	30.2	81
Colbert	515.7	1,688	97.6	323	58.4	191	88.8	310	21.1	69	34.0	110
Conecuh	539.1	460	113.8	99	52.8	43	110.6	102	28.3	27	21.7	19
Coosa	470.1	359	102.1	80	39.0	30	114.6	92	^	^	^	^
Covington	519.2	1,211	91.5	221	66.8	151	104.2	265	20.9	48	28.8	63
Crenshaw	525.0	430	91.4	80	72.3	57	113.4	97	19.6	17	27.2	21
Cullman	492.9	2,296	96.3	460	42.4	195	91.0	447	23.3	111	42.8	198
Dale	547.6	1,430	98.7	259	46.1	121	139.9	382	26.8	72	32.5	76
Dallas	613.7	1,356	108.8	243	68.7	149	194.0	455	15.5	36	16.3	33
DeKalb	472.9	1,808	84.6	319	44.9	173	121.0	478	14.9	59	24.4	89
Elmore	571.0	2,266	103.3	408	54.0	207	116.6	495	24.1	97	43.5	169
Escambia	556.6	1,192	111.8	241	59.8	124	123.4	279	18.0	40	19.1	42
Etowah	581.6	3,420	102.4	612	56.4	333	141.1	871	25.7	152	26.4	147
Fayette	535.3	574	88.4	100	72.9	76	132.9	153	18.4	18	19.3	19
Franklin	482.2	826	98.4	174	47.4	83	78.9	142	16.5	27	33.5	55
Geneva	535.7	912	119.4	208	37.3	63	120.3	218	25.9	45	40.9	62
Greene	554.1	292	101.2	55	59.5	32	183.0	102	^	^	^	^
Hale	568.0	506	94.8	84	37.3	32	184.8	176	21.4	19	18.2	16
Henry	587.3	657	93.0	109	52.2	55	156.0	191	25.6	28	37.8	40
Houston	564.0	3,063	88.7	486	60.6	316	148.6	855	26.1	142	31.5	164
Jackson	525.2	1,684	107.1	366	48.5	155	102.3	347	19.8	65	29.8	88
Jefferson	565.7	18,158	88.6	2,761	51.1	1,618	163.7	5,529	19.2	634	24.5	757
Lamar	574.5	554	104.2	100	66.4	62	130.9	135	15.8	17	33.4	29
Lauderdale	523.4	2,823	98.5	541	51.7	270	107.7	612	17.6	95	38.2	200
Lawrence	614.2	1,176	121.3	240	71.9	132	132.8	259	19.4	38	34.8	65
Lee	469.9	2,643	70.8	378	39.9	228	134.3	762	20.4	115	19.7	108
Limestone	554.1	2,434	91.7	396	47.6	214	137.2	626	15.9	78	32.4	131
Lowndes	660.5	416	100.1	63	87.5	55	202.8	134	^	^	24.2	15
Macon	580.6	638	91.2	106	68.9	74	202.8	221	26.5	32	^	^
Madison	495.5	8,350	77.0	1,270	46.8	772	119.4	2,130	17.4	308	26.6	430
Marengo	550.7	663	84.5	103	68.8	81	171.9	224	15.4	18	^	^
Marion	531.7	1,051	110.2	224	56.5	114	108.8	226	26.0	54	22.9	42
Marshall	532.0	2,674	105.4	536	52.6	259	100.7	542	21.4	112	26.3	124
Mobile	551.6	11,378	95.2	1,936	58.0	1,176	132.4	2,889	18.1	392	27.8	539
Monroe	528.3	673	84.0	113	68.2	84	119.4	164	15.6	20	23.5	27
Montgomery	521.7	5,364	84.9	852	53.5	542	139.5	1,498	17.9	192	26.5	258
Morgan	586.7	3,786	101.2	648	50.8	329	153.4	1,037	20.7	139	35.7	221
Perry	624.6	345	118.4	69	61.4	33	181.4	105	^	^	^	^
Pickens	502.2	607	87.8	108	45.5	55	141.6	178	21.8	26	16.0	19
Pike	549.2	845	89.4	137	47.6	70	139.8	234	29.1	47	33.2	50
Randolph	532.6	740	85.9	123	66.7	90	126.3	188	12.3	18	19.1	27
Russell	587.5	1,509	107.5	278	62.9	157	143.1	377	21.6	60	20.3	51
St. Clair	540.0	2,431	100.8	452	50.6	230	119.0	568	21.8	106	33.4	138
Shelby	513.1	4,796	68.4	607	43.7	417	151.1	1,496	16.4	162	31.0	292
Sumter	591.6	407	107.7	75	65.8	42	207.1	151	^	^	^	^
Talladega	560.9	2,524	106.8	482	61.5	271	132.8	631	22.2	101	24.3	104
Tallapoosa	544.8	1,416	98.3	262	47.4	122	124.7	355	21.4	54	29.3	71
Tuscaloosa	557.9	4,670	97.4	785	53.4	444	161.9	1,408	17.2	150	21.0	174
Walker	600.0	2,382	119.4	500	47.8	183	133.6	564	23.3	91	27.4	99
Washington	543.0	542	93.7	93	54.0	55	125.6	134	20.0	19	26.8	24
Wilcox	635.0	396	118.7	73	74.2	40	180.8	124	^	^	^	^
Winston	547.3	853	120.0	188	58.3	87	101.0	170	21.4	36	31.2	46

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only except for All Sites, which contains in situ bladder cases. ^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 5. Alabama Cancer Incidence Rates and Counts, by County, Females, All Races, 2007-2016 Combined

	All Sites		Lung		Colorectal		Breast		Cervix		Oral		Melanoma	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	401.2	119,473	52.7	16,510	38.6	11,732	120.8	35,656	9.0	2,265	7.1	2,137	16.2	4,542
Autauga	434.9	1,346	58.3	185	46.9	144	138.0	435	10.4	29	6.4	20	22.2	67
Baldwin	397.6	5,132	55.1	763	35.1	459	124.4	1,609	7.7	78	8.6	113	21.7	257
Barbour	404.4	673	52.3	93	49.1	86	123.6	193	^	^	^	^	^	^
Bibb	437.1	566	70.1	97	37.6	50	134.3	172	^	^	^	^	13.8	17
Blount	386.5	1,412	57.3	224	34.4	127	117.8	434	11.2	31	7.1	24	19.7	70
Bullock	447.5	273	41.2	27	44.1	30	149.2	86	^	^	^	^	^	^
Butler	392.3	548	38.3	61	32.9	51	140.8	187	15.4	16	^	^	13.2	18
Calhoun	394.9	3,007	60.9	492	40.4	317	107.0	807	9.8	64	8.4	64	15.9	112
Chambers	458.1	1,101	55.4	141	45.4	116	118.7	282	16.8	34	9.8	26	13.4	30
Cherokee	351.2	665	56.2	119	26.8	52	97.5	181	12.8	19	^	^	^	^
Chilton	388.9	1,022	56.7	160	32.7	88	112.5	293	10.4	22	6.8	16	17.5	44
Choctaw	349.6	353	41.5	46	34.9	37	127.5	126	^	^	^	^	^	^
Clarke	401.4	695	38.6	73	54.0	93	132.0	226	^	^	^	^	22.1	34
Clay	424.6	405	65.1	69	42.4	39	122.7	113	^	^	^	^	17.3	15
Cleburne	407.5	399	65.4	67	43.7	45	98.7	93	^	^	^	^	^	^
Coffee	365.9	1,147	52.9	179	23.3	72	116.5	358	9.4	23	7.8	25	15.9	44
Colbert	381.5	1,470	51.1	211	40.2	164	117.1	445	8.5	26	5.4	21	18.4	62
Conecuh	440.7	393	48.3	48	48.1	45	149.5	127	^	^	^	^	^	^
Coosa	391.3	304	49.7	43	41.7	31	99.1	78	^	^	^	^	^	^
Covington	417.8	1,168	70.5	202	42.7	126	114.5	319	^	^	^	^	18.4	48
Crenshaw	384.7	364	47.6	49	39.0	38	108.0	101	^	^	^	^	27.6	24
Cullman	393.2	2,088	51.8	298	37.7	207	110.9	586	10.2	45	8.8	51	26.2	127
Dale	403.2	1,226	65.4	212	36.2	109	125.0	372	8.1	20	8.8	27	14.9	44
Dallas	426.1	1,180	50.2	144	56.5	162	134.6	362	14.2	32	5.5	17	9.7	26
DeKalb	351.7	1,522	49.0	224	40.4	179	93.4	403	7.8	28	8.4	35	13.7	54
Elmore	425.7	1,948	57.2	263	35.5	161	125.1	581	11.1	47	8.5	39	27.1	122
Escambia	387.6	926	50.8	132	38.4	94	121.2	285	^	^	6.3	16	14.0	32
Etowah	410.3	2,894	62.6	472	37.0	272	109.1	758	11.6	62	7.0	53	18.7	121
Fayette	423.0	517	62.5	83	31.7	43	123.0	150	^	^	^	^	17.6	20
Franklin	397.7	790	54.3	114	39.2	80	107.5	218	^	^	^	^	19.4	35
Geneva	408.7	780	61.5	128	36.3	71	119.3	225	^	^	12.3	24	27.8	50
Greene	410.1	256	51.8	31	56.7	35	135.3	81	^	^	^	^	^	^
Hale	349.3	365	38.3	42	40.6	44	109.3	109	^	^	^	^	^	^
Henry	376.7	478	47.8	65	33.3	44	114.4	137	^	^	^	^	18.2	22
Houston	399.5	2,609	53.6	371	39.6	264	113.3	730	11.5	65	8.7	56	17.1	107
Jackson	422.2	1,513	58.8	229	46.2	166	114.8	404	8.2	23	6.1	22	18.8	59
Jefferson	403.5	16,687	47.9	2,063	38.0	1,607	131.7	5,342	8.7	306	6.4	276	12.3	481
Lamar	430.8	456	68.5	77	51.3	56	146.5	152	^	^	^	^	^	^
Lauderdale	385.9	2,466	46.1	320	38.8	257	102.0	638	7.7	39	5.1	32	25.0	142
Lawrence	400.0	874	57.2	131	47.6	104	102.2	228	^	^	8.5	17	21.3	43
Lee	368.0	2,476	44.6	292	32.7	219	112.4	764	7.9	51	6.7	45	11.7	79
Limestone	398.4	1,957	53.5	277	31.4	160	117.8	584	7.9	35	5.8	29	15.3	71
Lowndes	415.7	301	47.1	36	54.1	41	129.1	89	^	^	^	^	^	^
Macon	389.0	530	42.0	61	45.9	66	110.2	149	14.8	17	^	^	^	^
Madison	416.9	8,249	52.5	1,065	34.5	689	128.8	2,571	7.2	126	7.9	157	15.7	300
Marengo	378.4	545	42.8	65	46.3	69	118.5	162	^	^	^	^	11.6	15
Marion	407.6	878	43.4	106	39.6	83	129.0	271	11.1	18	6.8	15	14.5	29
Marshall	391.3	2,278	62.3	389	36.1	216	95.7	559	10.2	46	7.7	44	18.7	102
Mobile	401.4	10,056	56.3	1,466	40.9	1,050	122.1	3,044	8.2	174	7.7	191	15.6	370
Monroe	379.5	576	37.1	62	51.9	83	127.1	190	^	^	^	^	11.5	15
Montgomery	392.0	5,246	45.3	614	40.6	559	124.4	1,649	10.3	123	5.9	80	12.5	165
Morgan	408.4	3,070	57.7	462	36.8	277	116.9	877	9.4	59	7.5	60	20.8	140
Perry	383.9	259	31.5	23	37.4	25	138.6	90	^	^	^	^	^	^
Pickens	392.6	529	44.4	70	34.9	51	148.7	187	^	^	^	^	13.0	15
Pike	382.5	693	47.4	90	33.3	62	113.1	200	^	^	^	^	22.0	37
Randolph	378.8	603	49.3	84	35.1	59	104.7	165	^	^	9.1	15	10.8	15
Russell	433.5	1,398	60.2	202	44.0	142	125.8	398	12.0	35	7.0	23	12.5	38
St. Clair	403.3	2,042	58.7	315	36.6	186	120.7	611	8.8	39	6.1	29	19.0	91
Shelby	382.0	4,183	47.7	504	33.7	361	121.8	1,365	5.6	60	5.9	66	19.8	214
Sumter	337.0	300	26.6	26	44.9	41	110.7	100	^	^	^	^	^	^
Talladega	393.3	2,048	52.1	287	37.9	201	115.4	597	10.3	46	8.7	45	12.1	58
Tallapoosa	410.3	1,200	56.1	176	38.0	110	105.7	308	15.3	36	5.3	17	15.6	46
Tuscaloosa	409.6	4,185	49.0	514	39.6	411	130.6	1,318	8.1	77	6.6	70	11.6	118
Walker	433.8	1,983	75.1	373	39.9	184	107.2	495	11.9	44	7.5	36	17.2	65
Washington	353.3	388	41.7	47	37.4	41	100.9	114	^	^	^	^	^	^
Wilcox	394.2	302	33.9	27	56.4	46	104.2	72	^	^	^	^	^	^
Winston	386.1	648	57.4	110	38.7	66	110.6	183	^	^	8.5	16	18.4	26

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only, except for All Sites, which contains in situ bladder cases.
 ^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 6. Alabama Cancer Incidence Rates and Counts, by County, Males and Females by Race, 2007-2016 Combined

	All Sites				Lung				Colorectal				Oral				Melanoma			
	White		Black		White		Black		White		Black		White		Black		White		Black	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	458.7	196,388	462.1	55,150	72.8	32,396	62.0	7,268	43.0	18,342	52.8	6,149	13.8	5,953	9.9	1,249	27.6	11,232	1.0	105
Autauga	473.1	2,277	517.3	468	75.4	367	70.2	59	50.7	241	57.1	50	13.9	68	^	^	32.6	156	^	^
Baldwin	450.1	10,331	427.9	705	68.3	1,654	61.1	95	40.6	928	53.2	86	14.2	326	8.7	18	33.1	716	^	^
Barbour	486.8	970	423.9	534	76.2	161	65.8	81	48.2	95	57.7	69	21.4	43	12.3	15	20.0	36	^	^
Bibb	482.9	1,022	498.4	215	84.0	188	79.2	33	51.0	104	47.6	18	15.2	31	^	^	19.5	39	^	^
Blount	437.9	2,983	371.5	36	74.9	538	^	^	43.9	289	^	^	11.8	82	^	^	25.9	166	^	^
Bullock	511.6	212	466.1	386	97.0	42	54.8	46	45.1	19	52.5	45	^	^	^	^	^	^	^	^
Butler	433.3	730	454.7	421	63.5	121	48.6	46	42.3	73	55.0	51	17.4	31	^	^	27.8	44	^	^
Calhoun	473.7	5,490	448.7	968	84.9	1,034	58.6	120	50.3	581	55.0	115	16.9	191	13.4	30	22.6	250	^	^
Chambers	553.1	1,657	492.7	711	86.3	268	55.5	83	47.5	145	55.4	78	23.2	73	9.3	15	24.2	68	^	^
Cherokee	412.9	1,466	486.9	73	77.9	293	^	^	36.0	128	^	^	14.2	51	^	^	15.8	51	^	^
Chilton	424.5	1,953	500.7	213	73.2	353	85.7	37	35.9	167	^	^	12.4	55	^	^	22.1	98	^	^
Choctaw	413.0	484	452.0	337	57.8	74	52.8	42	43.6	53	56.3	42	16.0	17	^	^	12.4	17	^	^
Clarke	459.7	958	469.1	545	65.0	146	54.2	62	54.8	111	77.6	90	11.4	25	^	^	36.7	67	^	^
Clay	484.0	782	528.7	117	86.7	149	117.5	23	49.5	78	^	^	9.8	17	^	^	25.5	36	^	^
Cleburne	466.2	851	532.7	35	79.9	150	^	^	56.7	106	^	^	17.1	32	^	^	16.3	28	^	^
Coffee	433.0	2,124	398.0	356	75.1	383	67.1	58	29.1	140	26.8	24	12.5	62	^	^	26.7	125	^	^
Colbert	440.3	2,691	429.2	449	75.7	482	48.4	52	45.4	282	66.6	73	13.1	79	^	^	29.9	172	^	^
Conecuh	468.8	503	513.5	347	84.3	99	63.4	48	44.2	51	57.0	37	23.4	27	^	^	29.7	30	^	^
Coosa	424.3	477	422.5	180	84.8	103	43.2	20	35.8	38	52.8	22	^	^	^	^	18.9	18	^	^
Covington	454.4	2,117	495.2	243	78.1	381	78.0	38	51.6	243	66.6	33	13.4	59	^	^	24.3	109	^	^
Crenshaw	449.1	620	420.3	162	71.8	107	49.9	20	48.2	67	64.1	25	14.7	22	^	^	35.7	45	^	^
Cullman	428.7	4,258	411.0	37	71.5	743	^	^	39.7	398	^	^	15.8	160	^	^	33.9	324	^	^
Dale	468.1	2,191	463.1	416	84.3	413	53.3	50	40.6	188	45.5	40	17.9	84	^	^	27.2	120	^	^
Dallas	523.8	1,067	487.7	1,433	79.7	171	71.9	214	54.4	114	67.7	195	10.9	24	9.2	28	30.4	53	^	^
DeKalb	401.2	3,198	418.3	56	64.4	531	^	^	42.7	340	^	^	11.8	93	^	^	18.8	142	^	^
Elmore	490.2	3,571	461.4	579	76.6	568	86.1	100	44.8	323	39.1	45	16.4	121	^	^	40.7	289	^	^
Escambia	468.0	1,552	450.3	526	80.6	284	69.8	82	46.4	153	52.4	62	14.7	48	^	^	22.9	73	^	^
Etowah	477.2	5,478	481.1	736	81.9	985	65.3	94	44.2	513	51.4	81	15.4	181	13.5	22	24.7	264	^	^
Fayette	465.1	946	493.8	124	78.8	169	^	^	48.6	99	63.9	18	11.0	21	^	^	20.0	38	^	^
Franklin	437.2	1,553	353.8	54	76.3	282	^	^	43.3	156	^	^	10.1	35	^	^	26.7	90	^	^
Geneva	470.0	1,560	386.3	117	89.7	315	54.0	18	38.2	127	^	^	18.7	64	^	^	36.5	112	^	^
Greene	501.1	141	463.7	399	97.0	31	64.7	55	^	^	63.0	54	^	^	^	^	^	^	^	^
Hale	432.3	412	444.1	447	68.6	67	56.5	58	38.4	38	36.1	37	^	^	^	^	23.4	22	^	^
Henry	474.4	846	458.6	277	71.8	138	56.8	35	43.8	74	41.9	25	13.3	25	^	^	35.7	62	^	^
Houston	466.4	4,476	484.9	1,148	70.1	704	61.4	148	45.5	433	61.2	141	18.4	177	7.6	20	29.3	268	^	^
Jackson	463.6	3,040	432.0	97	83.2	581	^	^	47.3	306	^	^	12.8	84	^	^	24.4	146	^	^
Jefferson	463.1	21,493	471.5	12,756	65.7	3,145	62.3	1,646	40.0	1,876	49.7	1,295	13.1	611	10.0	285	27.3	1216	0.8	20
Lamar	492.1	911	504.7	95	85.0	163	^	^	60.4	113	^	^	10.0	20	^	^	25.1	42	^	^
Lauderdale	438.1	4,805	488.9	444	68.8	799	60.2	57	42.8	462	69.5	62	11.1	116	^	^	33.0	340	^	^
Lawrence	514.5	1,801	472.6	235	95.6	348	41.0	22	58.3	200	75.7	35	15.4	53	^	^	32.3	108	^	^
Lee	397.4	3,750	454.6	1,235	54.7	505	61.7	156	32.7	308	44.1	120	14.2	133	8.5	25	19.7	184	^	^
Limestone	463.6	3,829	433.0	469	72.1	614	56.0	53	38.1	318	43.9	50	10.9	96	^	^	25.7	202	^	^
Lowndes	546.8	265	503.5	445	76.0	43	61.3	55	64.7	32	70.3	63	^	^	^	^	40.0	17	^	^
Macon	500.9	249	457.6	905	99.8	52	54.5	115	37.4	17	61.6	122	^	^	16.6	34	^	^	^	^
Madison	445.5	12,986	442.4	2,961	63.9	1,906	60.9	387	38.4	1,110	48.2	310	13.3	396	7.1	55	25.7	723	^	^
Marengo	440.2	645	445.9	534	65.6	105	53.3	63	44.0	65	68.5	83	^	^	^	^	18.2	23	^	^
Marion	458.9	1,853	477.6	64	74.2	320	^	^	47.6	190	^	^	16.4	68	^	^	18.7	70	^	^
Marshall	445.2	4,781	439.0	70	80.3	905	112.5	16	43.4	459	^	^	14.3	152	^	^	22.0	225	^	^
Mobile	470.3	14,819	460.7	6,275	75.9	2,464	66.3	897	46.3	1,461	56.2	745	13.1	420	10.7	150	29.7	895	^	^
Monroe	432.3	780	466.8	461	59.5	119	57.3	56	50.9	96	72.4	70	^	^	^	^	26.0	39	^	^
Montgomery	446.0	5,755	433.8	4,622	62.7	856	58.4	600	43.8	573	48.6	516	12.3	161	8.9	102	33.7	411	^	^
Morgan	485.9	6,184	469.4	572	77.8	1,031	67.7	74	42.2	531	53.6	63	14.1	183	11.8	15	30.3	359	^	^
Perry	440.3	228	501.0	366	75.3	46	59.8	46	34.0	19	55.1	38	^	^	^	^	^	^	^	^
Pickens	416.9	702	467.0	419	65.7	124	58.1	53	36.9	65	45.0	40	13.0	22	^	^	22.6	34	^	^
Pike	461.7	1,057	437.8	462	66.0	160	62.9	66	35.7	80	44.4	49	18.3	43	14.2	15	41.0	87	^	^
Randolph	436.1	1,108	480.6	228	67.8	181	55.3	26	49.9	126	50.8	23	12.0	30	^	^	17.7	42	^	^
Russell	519.3	1,875	444.3	988	90.6	343	61.8	134	51.5	183	52.5	113	14.9	55	10.4	25	25.6	88	^	^
St. Clair	461.1	4,122	442.7	292	78.4	725	65.5	39	43.2	385	46.0	26	13.8	128	^	^	27.0	226	^	^
Shelby	436.4	8,071	452.9	709	57.5	1,033	52.3	69	37.7	694	50.8	67	10.8	207	^	^	27.6	504	^	^
Sumter	461.9	224	429.4	473	71.9	38	53.9	62	30.8	16	63.1	67	^	^	13.2	15	^	^	^	^
Talladega	469.7	3,402	446.8	1,109	81.5	618	62.4	151	48.2	348	49.7	118	16.6	121	9.8	25	23.5	159	^	^
Tallapoosa	452.2	1,999	523.5	600	77.0	358	69.7	79	37.7	167	57.6	63	13.2	55	^	^	27.5	116	^	^
Tuscaloosa	454.9	6,302	494.6	2,363	70.3	988	66.6	304	41.9	575	55.7	266	11.5	165	9.3	49	20.6	284	^	^
Walker	501.4	4,119	528.7	209	94.9	832	105.5	40	43.4	349	37.7	17	14.3	118	^	^	22.8	164	^	^
Washington	471.6	712	435.7	207	75.0	116	50.7	24	48.6	73	41.1	20	14.2	21	^	^	27.1	36	^	^
Wilcox	506.7	267	484.4	421	65.2	39	67.4	60	54.0	30	64.3	55	^	^	^	^	^	^	^	^
Winston	452.5	1,475	^	^	86.3	295	^	^	48.2	152	^	^	14.8	51	^	^	23.7	72	^	^

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only, except for All Sites, which contains in situ bladder cases.
^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 7. Alabama Cancer Incidence Rates and Counts, by County, Males by Race, 2007-2016 Combined

	All Sites				Lung				Colorectal			
	White		Black		White		Black		White		Black	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	530.9	104,857	581.3	29,107	93.5	18,668	96.1	4,621	50.9	9,903	63.2	3,052
Autauga	523.2	1,169	643.0	250	94.1	202	119.4	42	55.5	123	59.6	26
Baldwin	508.8	5,593	536.0	378	81.9	930	92.5	62	47.8	517	59.5	43
Barbour	560.7	541	569.5	295	98.6	94	110.3	55	46.0	44	79.0	36
Bibb	551.4	544	612.1	127	95.5	99	127.9	25	66.8	62	^	^
Blount	512.0	1,617	374.9	15	95.9	316	^	^	56.3	166	^	^
Bullock	513.8	118	565.6	209	115.1	28	90.5	33	^	^	74.8	24
Butler	496.7	386	549.9	220	87.8	71	85.2	35	64.6	48	64.5	25
Calhoun	574.2	2,963	594.6	521	114.3	602	79.6	62	62.8	321	73.3	62
Chambers	643.1	908	626.9	377	109.0	155	90.0	56	55.6	78	49.8	32
Cherokee	502.0	845	469.3	33	105.0	179	^	^	46.9	79	^	^
Chilton	479.6	1,035	591.2	114	94.7	211	95.1	19	40.6	86	^	^
Choctaw	488.2	275	604.9	193	77.0	46	74.8	24	51.3	30	88.2	28
Clarke	524.9	520	606.6	290	89.6	89	97.6	46	58.6	57	108.2	51
Clay	570.9	435	587.1	60	117.2	91	^	^	59.8	46	^	^
Cleburne	543.7	471	693.6	19	95.9	84	^	^	71.3	63	^	^
Coffee	513.6	1,174	496.2	193	99.7	228	97.2	35	35.6	82	^	^
Colbert	515.4	1,441	518.5	236	99.5	283	88.4	40	53.9	150	89.7	41
Conecuh	507.5	280	593.0	178	111.4	63	113.7	36	50.8	28	51.4	15
Coosa	455.5	250	512.8	105	113.0	65	67.9	15	^	^	70.7	15
Covington	510.9	1,081	624.8	123	91.8	203	97.7	17	65.2	133	89.6	18
Crenshaw	534.5	340	466.1	81	97.3	67	^	^	67.0	41	^	^
Cullman	484.5	2,218	575.0	26	95.6	448	^	^	42.8	193	^	^
Dale	541.6	1,196	593.5	216	100.8	227	82.2	30	45.1	99	47.5	21
Dallas	584.1	564	621.1	763	89.3	88	123.0	153	58.5	57	80.3	92
DeKalb	467.7	1,726	516.7	33	85.9	314	^	^	44.5	165	^	^
Elmore	557.2	1,897	611.2	323	96.5	333	156.9	74	56.6	187	37.5	20
Escambia	569.3	875	550.6	291	112.7	178	111.7	57	58.0	85	67.9	38
Etowah	569.2	2,971	637.1	382	103.2	553	101.8	56	54.3	285	71.1	42
Fayette	517.5	495	586.9	62	93.0	93	^	^	73.6	68	^	^
Franklin	487.0	792	399.9	30	99.8	168	^	^	48.1	80	^	^
Geneva	541.5	839	457.4	64	121.5	193	^	^	38.7	60	^	^
Greene	618.9	85	518.3	200	133.5	20	90.9	35	^	^	66.1	26
Hale	527.2	240	584.6	255	91.1	40	99.1	44	33.6	15	38.6	16
Henry	559.0	479	651.2	170	93.2	85	89.3	23	54.1	44	^	^
Houston	551.5	2,403	624.4	629	89.8	398	80.3	83	55.9	234	79.6	79
Jackson	523.7	1,603	518.2	48	109.5	358	^	^	49.1	150	^	^
Jefferson	541.9	11,193	593.6	6,623	84.7	1,739	96.6	1,001	47.6	975	57.0	612
Lamar	576.1	507	541.4	43	104.7	91	^	^	71.7	61	^	^
Lauderdale	513.2	2,561	652.5	244	97.4	496	123.8	45	48.7	236	91.8	34
Lawrence	634.5	1,036	631.3	130	134.1	226	^	^	69.9	110	119.2	21
Lee	439.2	1,927	603.7	646	64.7	271	99.8	101	37.3	163	48.2	57
Limestone	547.8	2,117	575.4	268	91.4	354	104.3	39	46.1	182	61.6	29
Lowndes	668.5	163	654.3	249	102.5	28	93.3	35	72.2	17	100.0	38
Macon	518.0	132	591.2	495	113.9	30	84.2	76	^	^	74.1	62
Madison	483.3	6,549	512.4	1,466	76.5	1,032	84.3	219	45.7	606	55.5	148
Marengo	468.1	324	613.4	313	77.4	56	92.3	47	56.0	37	87.2	44
Marion	530.0	1,002	559.8	40	110.0	215	^	^	56.1	108	^	^
Marshall	526.7	2,570	535.8	39	106.6	529	^	^	52.1	248	^	^
Mobile	545.0	7,907	575.3	3,281	95.1	1,372	95.7	542	55.4	797	67.8	368
Monroe	496.1	418	606.2	251	72.3	65	111.2	48	58.3	50	87.6	33
Montgomery	506.2	2,921	524.1	2,297	81.3	476	90.8	375	51.8	292	56.9	244
Morgan	581.4	3,412	637.3	314	102.2	600	105.8	45	49.2	288	73.0	35
Perry	574.2	139	641.3	197	130.2	37	100.6	32	^	^	61.7	18
Pickens	468.9	386	571.4	211	92.6	80	83.6	28	44.7	38	46.5	16
Pike	545.7	590	554.0	243	87.1	96	99.4	41	44.8	45	46.7	23
Randolph	524.1	619	592.1	116	89.1	109	^	^	66.5	78	^	^
Russell	574.3	933	596.3	553	109.9	185	106.2	93	60.0	95	68.1	61
St. Clair	537.5	2,229	525.6	167	101.9	425	82.2	25	50.9	215	^	^
Shelby	506.2	4,315	582.8	369	67.7	555	94.2	50	43.1	377	57.3	30
Sumter	578.3	132	579.9	267	124.2	29	97.4	46	^	^	85.5	34
Talladega	548.9	1,851	585.3	632	107.2	371	111.3	111	60.4	198	66.6	69
Tallapoosa	530.2	1,103	593.8	300	97.7	208	105.6	53	45.3	96	54.8	25
Tuscaloosa	519.6	3,302	642.5	1,228	95.3	592	107.0	189	48.4	305	73.2	135
Walker	595.1	2,246	631.1	107	119.7	479	125.2	20	48.7	176	^	^
Washington	570.3	412	577.0	125	102.8	75	87.4	18	62.4	45	^	^
Wilcox	584.5	146	658.1	240	100.1	25	126.5	47	^	^	78.9	25
Winston	542.9	835	^	^	119.4	185	^	^	58.1	86	^	^

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only, except for All Sites, which contains in situ bladder cases.
 ^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 7. (Continued) Alabama Cancer Incidence Rates and Counts, by County, Males by Race, 2007-2016 Combined

	Prostate				Oral				Melanoma			
	White		Black		White		Black		White		Black	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	113.9	23,862	207.7	10,701	21.0	4,237	16.0	880	35.5	6,761	1.0	46
Autauga	92.9	214	234.2	92	21.6	51	^	^	38.5	89	^	^
Baldwin	103.9	1,224	183.3	126	20.4	225	^	^	44.2	463	^	^
Barbour	143.5	145	206.6	117	32.5	34	^	^	27.9	25	^	^
Bibb	115.6	121	140.2	31	24.2	25	^	^	25.1	22	^	^
Blount	102.9	346	^	^	17.6	60	^	^	32.7	96	^	^
Bullock	72.7	17	201.7	80	^	^	^	^	^	^	^	^
Butler	101.6	83	182.9	76	27.7	23	^	^	37.2	27	^	^
Calhoun	116.8	637	222.1	198	25.7	134	26.2	25	27.1	139	^	^
Chambers	127.8	196	282.6	168	35.6	51	^	^	30.5	42	^	^
Cherokee	102.4	194	219.3	15	23.7	39	^	^	26.6	41	^	^
Chilton	100.9	228	231.8	46	19.0	41	^	^	25.7	54	^	^
Choctaw	130.6	80	233.2	78	^	^	^	^	^	^	^	^
Clarke	119.9	126	161.1	80	16.8	17	^	^	34.9	33	^	^
Clay	130.4	102	235.6	26	^	^	^	^	30.9	21	^	^
Cleburne	97.0	89	^	^	30.4	27	^	^	23.1	19	^	^
Coffee	122.4	292	208.9	83	17.2	41	^	^	35.7	81	^	^
Colbert	75.4	225	166.7	77	22.4	62	^	^	39.7	110	^	^
Conecuh	78.0	47	172.8	55	30.1	19	^	^	34.4	19	^	^
Coosa	90.7	52	177.0	38	^	^	^	^	^	^	^	^
Covington	95.1	218	187.6	43	22.3	46	^	^	31.0	62	^	^
Crenshaw	96.8	63	182.3	33	21.7	15	^	^	35.5	21	^	^
Cullman	83.9	408	^	^	23.6	110	^	^	43.4	197	^	^
Dale	129.2	299	211.6	77	27.4	62	^	^	38.0	76	^	^
Dallas	150.8	163	219.0	274	^	^	16.4	21	39.1	32	^	^
DeKalb	114.3	438	^	^	15.4	59	^	^	25.3	89	^	^
Elmore	95.6	349	225.1	122	24.7	84	^	^	50.4	168	^	^
Escambia	105.5	176	177.0	93	21.4	33	^	^	26.1	41	^	^
Etowah	126.5	698	219.8	135	25.7	134	25.5	17	29.2	144	^	^
Fayette	106.4	111	261.2	27	18.8	17	^	^	21.6	19	^	^
Franklin	76.5	131	^	^	16.8	26	^	^	35.3	55	^	^
Geneva	112.8	186	215.1	30	25.4	41	^	^	44.9	62	^	^
Greene	132.2	21	185.6	76	^	^	^	^	^	^	^	^
Hale	131.6	68	212.5	98	^	^	^	^	35.0	16	^	^
Henry	111.7	106	271.7	79	24.0	21	^	^	48.6	40	^	^
Houston	126.0	588	244.3	254	29.5	128	^	^	38.8	162	^	^
Jackson	93.1	302	213.6	21	20.5	64	^	^	30.6	87	^	^
Jefferson	130.6	2,830	218.9	2,560	20.4	427	16.6	198	36.6	747	^	^
Lamar	123.8	118	^	^	15.4	15	^	^	37.0	29	^	^
Lauderdale	100.1	530	202.8	73	17.6	86	^	^	40.9	198	^	^
Lawrence	124.0	207	216.1	46	22.1	37	^	^	41.4	65	^	^
Lee	107.2	478	252.1	261	22.2	97	13.8	16	25.0	108	^	^
Limestone	124.7	502	217.7	103	16.3	70	^	^	36.7	131	^	^
Lowndes	161.5	40	226.3	91	^	^	^	^	^	^	^	^
Macon	142.2	37	214.2	176	^	^	28.0	25	^	^	^	^
Madison	100.7	1,452	169.6	508	18.5	263	10.5	36	32.4	426	^	^
Marengo	117.5	89	206.8	112	^	^	^	^	^	^	^	^
Marion	106.2	212	^	^	26.7	53	^	^	24.1	42	^	^
Marshall	95.3	500	^	^	21.4	108	^	^	26.9	123	^	^
Mobile	109.8	1,704	192.2	1,123	18.2	277	18.4	108	38.2	530	^	^
Monroe	84.0	79	200.7	85	^	^	^	^	33.7	25	^	^
Montgomery	108.4	661	169.2	754	18.8	110	15.9	76	45.0	252	^	^
Morgan	145.0	894	211.1	108	21.4	129	^	^	39.0	219	^	^
Perry	109.4	31	225.7	69	^	^	^	^	^	^	^	^
Pickens	90.6	79	236.9	91	21.0	17	^	^	23.6	19	^	^
Pike	124.3	149	177.4	81	31.9	36	^	^	47.7	50	^	^
Randolph	101.0	129	287.0	58	14.2	17	^	^	22.7	27	^	^
Russell	102.5	169	197.1	194	26.2	44	^	^	31.3	50	^	^
St. Clair	113.8	498	166.4	59	22.7	101	^	^	36.2	138	^	^
Shelby	142.2	1,288	235.2	161	16.7	150	^	^	34.1	291	^	^
Sumter	151.9	37	219.2	107	^	^	^	^	^	^	^	^
Talladega	105.5	380	205.2	228	24.1	82	15.4	19	31.7	102	^	^
Tallapoosa	109.9	253	178.2	97	21.6	42	^	^	36.1	70	^	^
Tuscaloosa	125.3	832	234.9	464	17.6	116	14.1	31	26.9	170	^	^
Walker	124.7	503	229.9	40	23.0	85	^	^	28.9	99	^	^
Washington	107.3	84	208.6	48	24.7	17	^	^	38.2	24	^	^
Wilcox	111.9	36	211.4	80	^	^	^	^	^	^	^	^
Winston	96.4	160	^	^	21.7	36	^	^	31.6	46	^	^

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only, except for All Sites, which contains in situ bladder cases.
 ^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 8. Alabama Cancer Incidence Rates and Counts, by County, Females by Race, 2007-2016 Combined

	All Sites				Lung				Colorectal				Breast			
	White		Black		White		Black		White		Black		White		Black	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	406.7	91,531	382.8	26,043	56.8	13,728	39.0	2,647	36.3	8,439	45.7	3,097	118.5	26,451	125.5	8,627
Autauga	436.6	1,108	425.5	218	62.6	165	35.6	17	46.3	118	51.5	24	131.2	341	164.4	89
Baldwin	400.7	4,738	360.2	327	56.6	724	39.0	33	34.1	411	48.6	43	126.0	1,492	110.3	102
Barbour	444.4	429	350.2	239	62.3	67	37.2	26	50.2	51	46.1	33	125.2	115	119.4	77
Bibb	442.8	478	438.2	88	75.7	89	^	^	38.3	42	^	^	130.5	140	156.3	32
Blount	381.1	1,366	400.9	21	58.0	222	^	^	34.1	123	^	^	114.4	415	^	^
Bullock	554.6	94	411.0	177	^	^	^	^	^	^	42.3	21	193.2	26	143.0	60
Butler	401.6	344	385.2	201	47.7	50	^	^	25.0	25	46.7	26	138.4	109	145.1	76
Calhoun	405.0	2,527	358.4	447	64.2	432	47.2	58	40.2	260	43.2	53	104.0	649	115.1	146
Chambers	486.2	749	406.4	334	68.9	113	31.7	27	41.1	67	53.9	46	126.3	195	101.0	83
Cherokee	342.5	621	527.7	40	56.3	114	^	^	26.7	49	^	^	91.6	163	228.4	17
Chilton	386.5	918	426.3	99	55.4	142	77.5	18	33.0	81	^	^	110.2	260	126.1	29
Choctaw	353.7	209	342.5	144	41.9	28	39.1	18	36.6	23	^	^	116.7	69	143.2	57
Clarke	411.7	438	382.5	255	46.5	57	24.0	16	51.9	54	57.9	39	131.4	137	130.7	88
Clay	422.5	347	483.9	57	63.0	58	^	^	40.9	32	^	^	124.7	99	^	^
Cleburne	404.8	380	449.0	16	66.9	66	^	^	44.0	43	^	^	99.1	90	^	^
Coffee	371.7	950	333.1	163	56.4	155	45.9	23	22.9	58	^	^	118.8	299	112.4	52
Colbert	386.0	1,250	364.6	213	57.2	199	^	^	38.5	132	49.9	32	112.3	361	143.6	82
Conecuh	442.4	223	458.7	169	60.8	36	^	^	38.1	23	60.5	22	137.6	65	174.0	61
Coosa	407.4	227	340.7	75	60.8	38	^	^	44.9	24	^	^	86.6	48	126.3	29
Covington	416.8	1,036	419.3	120	69.6	178	73.8	21	41.7	110	51.1	15	114.8	284	109.2	31
Crenshaw	387.0	280	384.9	81	50.8	40	^	^	33.6	26	^	^	99.8	70	141.9	31
Cullman	391.1	2,040	^	^	52.2	295	^	^	38.0	205	^	^	109.6	568	^	^
Dale	409.3	995	383.6	200	71.1	186	35.2	20	36.6	89	40.7	19	123.1	292	140.2	76
Dallas	480.8	503	396.7	670	72.9	83	36.2	61	49.9	57	60.9	103	142.8	143	128.4	218
DeKalb	351.1	1,472	339.1	23	48.9	217	^	^	40.6	175	^	^	93.4	391	^	^
Elmore	439.1	1,674	358.7	256	60.0	235	39.8	26	35.6	136	39.3	25	126.5	490	116.5	87
Escambia	397.3	677	386.8	235	56.0	106	39.9	25	39.1	68	38.4	24	108.4	185	149.8	90
Etowah	411.2	2,507	393.2	354	65.2	432	44.3	38	35.8	228	40.1	39	104.7	629	130.7	120
Fayette	421.1	451	446.1	62	65.2	76	^	^	25.7	31	^	^	114.2	125	188.7	24
Franklin	403.1	761	305.2	24	57.1	114	^	^	39.4	76	^	^	109.6	211	^	^
Geneva	417.7	721	329.7	53	64.8	122	^	^	38.2	67	^	^	116.9	201	150.7	23
Greene	390.3	56	418.4	199	^	^	45.0	20	^	^	60.9	28	^	^	151.1	70
Hale	355.6	172	342.5	192	51.0	27	^	^	43.0	23	35.5	21	89.0	43	124.4	66
Henry	396.5	367	318.8	107	53.6	53	^	^	33.3	30	^	^	118.9	105	100.5	31
Houston	407.3	2,073	385.2	519	55.0	306	48.1	65	38.0	199	46.6	62	115.4	577	109.7	149
Jackson	423.9	1,437	398.0	49	60.4	223	^	^	45.4	156	^	^	115.1	383	^	^
Jefferson	410.2	10,300	391.8	6,133	52.1	1,406	40.7	645	34.1	901	44.7	683	130.7	3,190	130.5	2,071
Lamar	424.5	404	498.0	52	72.0	72	^	^	53.9	52	^	^	140.3	133	191.4	19
Lauderdale	386.5	2,244	384.9	200	47.8	303	^	^	37.5	226	51.9	28	100.4	573	119.0	60
Lawrence	423.0	765	367.7	105	63.4	122	^	^	49.5	90	^	^	103.1	189	130.4	38
Lee	367.9	1,823	370.5	589	47.1	234	37.8	55	29.0	145	40.8	63	113.4	565	110.0	181
Limestone	399.9	1,712	348.0	201	57.1	260	^	^	30.2	136	34.0	21	113.8	490	125.8	75
Lowndes	440.0	102	397.7	196	52.2	15	40.0	20	58.2	15	47.9	25	119.7	28	129.5	60
Macon	487.9	117	364.2	410	88.1	22	32.6	39	^	^	51.7	60	140.9	35	104.0	114
Madison	421.5	6,437	392.4	1,495	54.5	874	44.6	168	32.2	504	43.7	162	126.2	1,942	131.4	514
Marengo	423.5	321	327.5	221	57.6	49	25.8	16	33.4	28	54.7	39	145.6	103	88.9	58
Marion	407.0	851	437.6	24	44.5	105	^	^	40.6	82	^	^	125.5	257	^	^
Marshall	390.6	2,211	368.0	31	61.5	376	^	^	36.3	211	^	^	95.1	540	^	^
Mobile	415.8	6,912	382.8	2,994	61.5	1,092	45.6	355	38.4	664	48.4	377	123.4	2,034	121.1	961
Monroe	388.0	362	378.1	210	49.1	54	^	^	46.3	46	65.5	37	135.6	121	121.7	69
Montgomery	408.2	2,834	376.1	2,325	49.7	380	37.7	225	36.5	281	43.1	272	123.7	832	125.5	792
Morgan	413.9	2,772	362.9	258	59.7	431	44.5	29	36.3	243	40.9	28	118.3	786	103.3	80
Perry	326.1	89	410.9	169	^	^	^	^	^	^	49.8	20	119.0	29	147.4	61
Pickens	378.2	316	406.3	208	42.6	44	44.7	25	30.4	27	44.6	24	143.1	117	146.2	69
Pike	396.1	467	363.1	219	49.6	64	40.8	25	28.3	35	43.1	26	113.2	129	114.2	70
Randolph	375.7	489	418.4	112	51.7	72	^	^	35.2	48	^	^	98.9	127	136.5	37
Russell	490.4	942	344.0	435	76.8	158	32.3	41	44.6	88	42.8	52	134.1	251	111.4	144
St. Clair	404.5	1,893	375.2	125	60.1	300	^	^	35.8	170	^	^	116.8	547	144.2	51
Shelby	382.9	3,756	367.3	340	49.5	478	24.3	19	32.6	317	46.6	37	120.7	1,212	129.8	124
Sumter	377.0	92	324.1	206	^	^	22.7	16	^	^	51.6	33	119.5	35	103.8	65
Talladega	412.1	1,551	348.3	477	60.8	247	28.8	40	38.0	150	36.9	49	115.3	434	112.8	156
Tallapoosa	393.2	896	472.0	300	61.1	150	42.5	26	31.7	71	59.1	38	98.1	226	124.9	80
Tuscaloosa	410.3	3,000	404.1	1,135	51.4	396	41.8	115	36.3	270	46.0	131	128.2	925	135.6	385
Walker	434.5	1,873	457.9	102	74.8	353	91.9	20	39.9	173	^	^	106.5	462	134.1	31
Washington	387.3	300	321.5	82	51.7	41	^	^	36.4	28	^	^	118.7	94	76.3	20
Wilcox	467.3	121	370.4	181	^	^	^	^	42.4	16	59.0	30	115.8	27	99.2	45
Winston	387.7	640	^	^	58.2	110	^	^	39.3	66	^	^	111.0	180	^	^

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only, except for All Sites, which contains in situ bladder cases. ^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 8. (Continued) Alabama Cancer Incidence Rates and Counts, by County, Females by Race, 2007-2016 Combined

	Cervix				Oral				Melanoma			
	White		Black		White		Black		White		Black	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	8.7	1,537	10.3	675	7.5	1,716	5.2	369	21.9	4,471	0.9	59
Autauga	11.1	24	^	^	6.6	17	^	^	27.7	67	^	^
Baldwin	7.1	63	^	^	8.5	101	^	^	23.6	253	^	^
Barbour	^	^	^	^	^	^	^	^	^	^	^	^
Bibb	^	^	^	^	^	^	^	^	16.9	17	^	^
Blount	10.7	29	^	^	6.4	22	^	^	20.2	70	^	^
Bullock	^	^	^	^	^	^	^	^	^	^	^	^
Butler	^	^	^	^	^	^	^	^	22.3	17	^	^
Calhoun	10.2	49	^	^	9.1	57	^	^	19.8	111	^	^
Chambers	18.4	22	^	^	12.0	22	^	^	19.2	26	^	^
Cherokee	13.5	19	^	^	^	^	^	^	^	^	^	^
Chilton	10.5	19	^	^	^	^	^	^	19.4	44	^	^
Choctaw	^	^	^	^	^	^	^	^	^	^	^	^
Clarke	^	^	^	^	^	^	^	^	39.5	34	^	^
Clay	^	^	^	^	^	^	^	^	20.2	15	^	^
Cleburne	^	^	^	^	^	^	^	^	^	^	^	^
Coffee	9.4	18	^	^	7.5	21	^	^	20.2	44	^	^
Colbert	8.6	21	^	^	5.1	17	^	^	22.2	62	^	^
Conecuh	^	^	^	^	^	^	^	^	^	^	^	^
Coosa	^	^	^	^	^	^	^	^	^	^	^	^
Covington	^	^	^	^	^	^	^	^	20.2	47	^	^
Crenshaw	^	^	^	^	^	^	^	^	37.1	24	^	^
Cullman	9.8	43	^	^	8.8	50	^	^	26.7	127	^	^
Dale	^	^	^	^	9.0	22	^	^	18.8	44	^	^
Dallas	^	^	12.5	19	^	^	^	^	22.8	21	^	^
DeKalb	7.0	24	^	^	8.5	34	^	^	14.1	53	^	^
Elmore	9.9	33	^	^	9.6	37	^	^	33.2	121	^	^
Escambia	^	^	^	^	8.2	15	^	^	20.1	32	^	^
Etowah	11.3	50	^	^	7.2	47	^	^	22.0	120	^	^
Fayette	^	^	^	^	^	^	^	^	19.4	19	^	^
Franklin	^	^	^	^	^	^	^	^	20.5	35	^	^
Geneva	^	^	^	^	13.1	23	^	^	31.0	50	^	^
Greene	^	^	^	^	^	^	^	^	^	^	^	^
Hale	^	^	^	^	^	^	^	^	^	^	^	^
Henry	^	^	^	^	^	^	^	^	25.7	22	^	^
Houston	11.7	47	13.3	18	9.8	49	^	^	22.6	106	^	^
Jackson	8.8	23	^	^	5.9	20	^	^	20.0	59	^	^
Jefferson	8.3	157	9.7	144	7.0	184	5.2	87	21.2	469	^	^
Lamar	^	^	^	^	^	^	^	^	^	^	^	^
Lauderdale	8.2	37	^	^	5.4	30	^	^	28.0	142	^	^
Lawrence	^	^	^	^	9.3	16	^	^	25.9	43	^	^
Lee	8.1	36	^	^	7.4	36	^	^	15.9	76	^	^
Limestone	8.4	31	^	^	6.0	26	^	^	17.9	71	^	^
Lowndes	^	^	^	^	^	^	^	^	^	^	^	^
Macon	^	^	16.7	16	^	^	^	^	^	^	^	^
Madison	7.3	90	8.4	33	8.6	133	4.5	19	20.9	297	^	^
Marengo	^	^	^	^	^	^	^	^	^	^	^	^
Marion	10.7	17	^	^	7.0	15	^	^	14.7	28	^	^
Marshall	10.6	46	^	^	7.9	44	^	^	19.3	102	^	^
Mobile	7.4	95	10.1	75	8.6	143	5.1	42	24.0	365	^	^
Monroe	^	^	^	^	^	^	^	^	^	^	^	^
Montgomery	8.8	44	12.5	77	6.7	51	3.8	26	26.1	159	^	^
Morgan	8.6	46	^	^	7.5	54	^	^	24.0	140	^	^
Perry	^	^	^	^	^	^	^	^	^	^	^	^
Pickens	^	^	^	^	^	^	^	^	23.1	15	^	^
Pike	^	^	^	^	^	^	^	^	35.9	37	^	^
Randolph	^	^	^	^	^	^	^	^	13.6	15	^	^
Russell	16.1	26	^	^	^	^	^	^	22.1	38	^	^
St. Clair	9.5	38	^	^	6.0	27	^	^	20.3	88	^	^
Shelby	5.1	46	^	^	5.8	57	^	^	22.5	213	^	^
Sumter	^	^	^	^	^	^	^	^	^	^	^	^
Talladega	11.5	35	^	^	10.5	39	^	^	17.1	57	^	^
Tallapoosa	11.5	20	27.7	16	^	^	^	^	21.0	46	^	^
Tuscaloosa	7.0	45	10.8	32	6.2	49	5.9	18	16.2	114	^	^
Walker	11.4	40	^	^	7.1	33	^	^	18.4	65	^	^
Washington	^	^	^	^	^	^	^	^	^	^	^	^
Wilcox	^	^	^	^	^	^	^	^	^	^	^	^
Winston	^	^	^	^	8.0	15	^	^	18.7	26	^	^

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. Rates are for malignant cases only, except for All Sites, which contains in situ bladder cases.
 ^ Statistic not displayed due to fewer than 15 cases.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Cancer Mortality Tables

Table 9. Alabama Cancer Mortality Rates and Counts, by Site, Race, and Sex, 2007-2016 Combined

	Male and Female						Male					
	All Races		White		Black		All Races		White		Black	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
All Malignant Cancers	185.3	102,219	180.7	78,269	207.9	23,366	237.2	56,149	228.7	43,342	283.1	12,535
Oral Cavity and Pharynx	2.8	1,564	2.7	1,182	3.1	375	4.5	1,130	4.3	840	5.8	286
Digestive System	43.8	24,298	40.5	17,596	57.6	6,519	57.4	13,983	53.4	10,319	76.0	3,569
Esophagus	3.9	2,237	3.8	1,698	4.4	527	7.1	1,805	7.0	1,393	8.0	402
Stomach	3.4	1,878	2.6	1,134	6.5	719	4.7	1,115	3.6	672	9.7	432
Small Intestine	0.3	162	0.3	110	0.4	51	0.3	80	0.3	55	0.5	25
Colon and Rectum	16.6	9,091	15.2	6,497	22.9	2,552	20.5	4,866	18.8	3,538	28.9	1,308
Colon Excluding Rectum	13.8	7,524	12.5	5,330	19.5	2,155	16.8	3,953	15.3	2,863	24.2	1,072
Rectum and Rectosigmoid Junction	2.8	1,567	2.7	1,167	3.4	397	3.7	913	3.5	675	4.7	236
Anus, Anal Canal, and Anorectum	0.3	150	0.3	114	0.3	36	0.3	72	0.2	48	0.5	24
Liver and Intrahepatic Bile Duct	6.6	3,721	6.3	2,766	7.4	902	9.8	2,488	9.2	1,843	11.6	612
Gallbladder	0.5	284	0.5	195	0.8	84	0.5	109	0.5	82	0.6	25
Pancreas	11.4	6,348	10.8	4,744	14.1	1,563	13.3	3,247	13.0	2,528	15.2	701
Other Digestive Organs	0.2	128	0.2	85	0.4	41	0.3	77	0.3	55	0.5	22
Respiratory System	56.9	32,026	58.3	25,829	52.5	6,038	80.2	19,622	79.3	15,542	86.2	4,003
Larynx	1.2	716	1.1	491	1.8	222	2.3	589	2.0	399	3.8	188
Lung and Bronchus	55.4	31,155	56.9	25,229	50.3	5,772	77.5	18,929	76.9	15,070	81.8	3,785
Bones and Joints	0.6	298	0.6	226	0.6	68	0.7	170	0.7	131	0.7	36
Soft Tissue Including Heart	1.2	641	1.1	462	1.4	172	1.4	323	1.3	246	1.5	73
Skin Excluding Basal and Squamous	3.6	1,973	4.4	1,874	0.8	93	5.8	1,334	6.9	1,276	1.2	53
Melanoma of the Skin	2.7	1,483	3.4	1,440	0.4	40	4.2	989	5.2	970	0.4	16
Other Non-Epithelial Skin	0.9	490	1.0	434	0.4	53	1.5	345	1.7	306	0.8	37
Breast	12.5	6,807	11.2	4,747	17.4	2,017	0.3	62	0.2	44	0.4	17
Female Genital System	*	*	*	*	*	*	*	*	*	*	*	*
Cervix Uteri	*	*	*	*	*	*	*	*	*	*	*	*
Corpus and Uterus, NOS	*	*	*	*	*	*	*	*	*	*	*	*
Corpus Uteri	*	*	*	*	*	*	*	*	*	*	*	*
Uterus, NOS	*	*	*	*	*	*	*	*	*	*	*	*
Ovary	*	*	*	*	*	*	*	*	*	*	*	*
Vagina	*	*	*	*	*	*	*	*	*	*	*	*
Vulva	*	*	*	*	*	*	*	*	*	*	*	*
Other Female Genital Organs	*	*	*	*	*	*	*	*	*	*	*	*
Male Genital System	*	*	*	*	*	*	25.1	5,199	19.7	3,305	53.5	1,877
Prostate	*	*	*	*	*	*	24.6	5,068	19.1	3,201	53.0	1,851
Testis	*	*	*	*	*	*	0.3	64	0.3	52	^	^
Penis	*	*	*	*	*	*	0.2	55	0.2	43	^	^
Other Male Genital Organs	*	*	*	*	*	*	^	^	^	^	^	^
Urinary System	8.0	4,380	8.3	3,569	7.3	796	13.2	2,995	13.8	2,510	10.9	475
Urinary Bladder	4.0	2,130	4.2	1,809	3.0	317	7.1	1,539	7.7	1,352	4.5	183
Kidney and Renal Pelvis	3.9	2,163	3.9	1,690	4.1	463	5.8	1,396	5.8	1,108	6.2	283
Ureter	0.1	42	0.1	33	^	^	0.1	29	0.1	22	^	^
Other Urinary Organs	0.1	45	0.1	37	^	^	0.1	31	0.2	28	^	^
Eye and Orbit	0.1	34	0.1	29	^	^	0.1	17	^	^	^	^
Brain and Other Nervous System	5.1	2,762	5.7	2,394	2.9	354	6.2	1,526	6.9	1,331	3.6	190
Endocrine System	0.8	404	0.7	308	0.9	94	0.8	187	0.8	149	0.9	37
Thyroid	0.4	241	0.4	184	0.5	56	0.5	107	0.5	89	0.5	18
Other Endocrine Including Thymus	0.3	163	0.3	124	0.3	38	0.3	80	0.3	60	0.4	19
Lymphoma	6.3	3,353	6.7	2,827	4.6	506	7.9	1,794	8.4	1,523	5.7	261
Hodgkin Lymphoma	0.4	191	0.4	149	0.3	41	0.5	110	0.5	84	0.4	25
Non-Hodgkin Lymphoma	5.9	3,162	6.3	2,678	4.3	465	7.5	1,684	7.9	1,439	5.3	236
Myeloma	3.8	2,069	3.2	1,378	6.3	681	4.9	1,118	4.3	781	7.7	332
Leukemia	7.1	3,807	7.6	3,175	5.5	611	9.8	2,199	10.4	1,864	7.3	325
Lymphocytic Leukemia	1.8	926	1.9	779	1.3	143	2.5	538	2.6	454	1.8	81
Acute Lymphocytic Leukemia	0.4	185	0.4	152	0.2	30	0.5	107	0.5	92	^	^
Chronic Lymphocytic Leukemia	1.2	649	1.3	548	0.9	100	1.8	377	1.8	316	1.4	60
Myeloid and Monocytic Leukemia	3.1	1,663	3.3	1,390	2.3	264	4.2	975	4.5	839	2.9	134
Acute Myeloid Leukemia	2.5	1,369	2.7	1,148	1.9	213	3.4	797	3.7	685	2.5	110
Chronic Myeloid Leukemia	0.3	149	0.3	124	0.2	25	0.4	83	0.4	72	^	^
Other Leukemia	2.3	1,218	2.4	1,006	1.9	204	3.2	686	3.3	571	2.6	110
Miscellaneous Malignant Cancer	13.6	7,495	13.1	5,664	15.9	1,791	17.8	4,235	17.1	3,242	21.1	968

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. ^Statistic not displayed due to fewer than 15 deaths.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 9 (Continued). Alabama Cancer Mortality Rates and Counts, by Site, Race, and Sex, 2007-2016 Combined

	All Races		Female White		Black	
	Rate	Count	Rate	Count	Rate	Count
All Malignant Cancers	148.8	46,070	145.8	34,927	162.5	10,831
Oral Cavity and Pharynx	1.4	434	1.4	342	1.3	89
Digestive System	33.0	10,315	30.0	7,277	44.6	2,950
Esophagus	1.4	432	1.2	305	1.8	125
Stomach	2.5	763	1.9	462	4.4	287
Small Intestine	0.3	82	0.2	55	0.4	26
Colon and Rectum	13.6	4,225	12.3	2,959	18.8	1,244
Colon Excluding Rectum	11.5	3,571	10.3	2,467	16.3	1,083
Rectum and Rectosigmoid Junction	2.1	654	2.1	492	2.4	161
Anus, Anal Canal, and Anorectum	0.2	78	0.3	66	^	^
Liver and Intrahepatic Bile Duct	4.0	1,233	3.8	923	4.3	290
Gallbladder	0.6	175	0.5	113	0.9	59
Pancreas	9.8	3,101	9.0	2,216	13.2	862
Other Digestive Organs	0.2	51	0.1	30	0.3	19
Respiratory System	39.6	12,404	42.3	10,287	30.3	2,035
Larynx	0.4	127	0.4	92	0.5	34
Lung and Bronchus	39.0	12,226	41.8	10,159	29.6	1,987
Bones and Joints	0.4	128	0.4	95	0.5	32
Soft Tissue Including Heart	1.1	318	1.0	216	1.4	99
Skin Excluding Basal and Squamous	2.1	639	2.6	598	0.6	40
Melanoma of the Skin	1.6	494	2.1	470	0.4	24
Other Non-Epithelial Skin	0.5	145	0.5	128	0.2	16
Breast	22.2	6,745	20.1	4,703	29.2	2,000
Female Genital System	15.7	4,798	14.7	3,431	20.2	1,332
Cervix Uteri	3.3	892	2.8	566	4.9	320
Corpus and Uterus, NOS	3.5	1,098	2.7	645	6.8	447
Corpus Uteri	1.7	545	1.4	332	3.2	210
Uterus, NOS	1.7	553	1.3	313	3.6	237
Ovary	8.1	2,522	8.3	1,994	7.6	506
Vagina	0.3	87	0.3	69	0.3	18
Vulva	0.5	139	0.5	119	0.3	19
Other Female Genital Organs	0.2	60	0.2	38	0.3	22
Male Genital System	*	*	*	*	*	*
Prostate	*	*	*	*	*	*
Testis	*	*	*	*	*	*
Penis	*	*	*	*	*	*
Other Male Genital Organs	*	*	*	*	*	*
Urinary System	4.4	1,385	4.3	1,059	4.9	321
Urinary Bladder	1.8	591	1.8	457	2.1	134
Kidney and Renal Pelvis	2.5	767	2.4	582	2.7	180
Ureter	^	^	^	^	^	^
Other Urinary Organs	^	^	^	^	^	^
Eye and Orbit	0.1	17	^	^	^	^
Brain and Other Nervous System	4.1	1,236	4.7	1,063	2.4	164
Endocrine System	0.7	217	0.7	159	0.9	57
Thyroid	0.4	134	0.4	95	0.6	38
Other Endocrine Including Thymus	0.3	83	0.3	64	0.3	19
Lymphoma	5.0	1,559	5.3	1,304	3.8	245
Hodgkin Lymphoma	0.3	81	0.3	65	0.2	16
Non-Hodgkin Lymphoma	4.7	1,478	5.0	1,239	3.6	229
Myeloma	3.0	951	2.4	597	5.4	349
Leukemia	5.3	1,608	5.6	1,311	4.4	286
Lymphocytic Leukemia	1.3	388	1.4	325	0.9	62
Acute Lymphocytic Leukemia	0.3	78	0.3	60	0.3	17
Chronic Lymphocytic Leukemia	0.8	272	0.9	232	0.6	40
Myeloid and Monocytic Leukemia	2.3	688	2.4	551	2.0	130
Acute Myeloid Leukemia	1.9	572	2.0	463	1.5	103
Chronic Myeloid Leukemia	0.2	66	0.2	52	^	^
Other Leukemia	1.7	532	1.8	435	1.5	94
Miscellaneous Malignant Cancer	10.5	3,260	10.1	2,422	12.4	823

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard. ^Statistic not displayed due to fewer than 15 deaths.

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016.

Table 10. Trends in Alabama Cancer Mortality Rates, Selected Sites, 2012-2016

Females

Breast	P-Value 0.543				Cervix	P-Value 0.756			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	-7.4				Total PC	5.0			
Total APC	-0.9		-5.1	3.5	Total APC	1.7		-13.2	19.1
2012 Rate	22.7	0.9	21.0	24.5	2012 Rate	2.9	0.3	2.3	3.7
2013 Rate	21.3	0.8	19.7	23.1	2013 Rate	3.6	0.4	2.9	4.4
2014 Rate	20.9	0.8	19.3	22.6	2014 Rate	3.8	0.4	3.1	4.6
2015 Rate	22.6	0.9	21.0	24.4	2015 Rate	3.9	0.4	3.2	4.8
2016 Rate	21.0	0.8	19.4	22.7	2016 Rate	3.1	0.3	2.4	3.8

Males

Prostate	P-Value 0.238				All Sites	P-Value 0.003			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	-2.3				Total PC	-5.7			
Total APC	-0.7		-2.1	0.8	Total APC	-1.6*		-2.1	-1.0
2012 Rate	22.0	1.1	20.0	24.1	2012 Rate	184.6	1.8	181.0	188.2
2013 Rate	22.1	1.0	20.1	24.3	2013 Rate	182.3	1.8	178.8	185.9
2014 Rate	21.2	1.0	19.3	23.3	2014 Rate	177.6	1.8	174.1	181.1
2015 Rate	21.7	1.0	19.8	23.7	2015 Rate	175.2	1.8	171.8	178.6
2016 Rate	21.5	1.0	19.6	23.5	2016 Rate	174.0	1.7	170.6	177.5

Males and Females

Colorectal	P-Value 0.225				Lung	P-Value 0.030			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	-10.2				Total PC	-9.3			
Total APC	-2.8		-8.4	3.2	Total APC	-3.0*		-5.4	-0.6
2012 Rate	16.4	0.6	15.3	17.5	2012 Rate	54.0	1.0	52.1	56.0
2013 Rate	17.5	0.6	16.4	18.7	2013 Rate	54.7	1.0	52.8	56.7
2014 Rate	15.3	0.5	14.3	16.4	2014 Rate	52.6	1.0	50.7	54.5
2015 Rate	16.3	0.5	15.3	17.4	2015 Rate	49.0	0.9	47.2	50.8
2016 Rate	14.7	0.5	13.7	15.7	2016 Rate	49.0	0.9	47.3	50.8

Males and Females

Melanoma	P-Value 0.882				Oral	P-Value 0.248			
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	-21.0				Total PC	19.6			
Total APC	-5.2*		-7.5	-2.8	Total APC	4.8		-1.0	10.9
2012 Rate	3.0	0.2	2.5	3.5	2012 Rate	2.6	0.2	2.2	3.1
2013 Rate	2.7	0.2	2.3	3.2	2013 Rate	2.7	0.2	2.3	3.2
2014 Rate	2.6	0.2	2.2	3.1	2014 Rate	2.5	0.2	2.1	3.0
2015 Rate	2.5	0.2	2.1	3.0	2015 Rate	3.0	0.2	2.6	3.5
2016 Rate	2.4	0.2	2.0	2.8	2016 Rate	3.1	0.2	2.7	3.6

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard; Confidence intervals are 95% for rates and trends. Percent changes were calculated using 1 year for each end point; Annual Percentage Changes (APCs) were calculated using the weighted least squares method. * The APC is significantly different from zero (p<0.05).

Source: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2012-2016.

National Comparison Tables

Table 11. Alabama and United States Cancer Incidence Rates, by Site, Race, and Sex, 2012-2016*

Males and Females						
	Alabama			United States		
	All Races	White	Black	All Races	White	Black
All Sites	451.4#	448.0	449.3	447.4	450.6	451.0
Lung and Bronchus	66.3#	68.8#	58.6^	58.7	60.2	61.0
Colon and Rectum	43.9#	41.8#	50.4#	38.8	38.0	44.7
Melanoma of the Skin	21.4	27.9#	1.0	21.6	24.9	1.0
Males						
	Alabama			United States		
	All Races	White	Black	All Races	White	Black
All Sites	519.9#	505.3#	548.4#	488.5	486.6	528.5
Lung and Bronchus	87.1#	87.2#	88.2#	68.7	69.1	80.6
Colon and Rectum	50.8#	48.6#	58.8#	44.5	43.5	52.7
Melanoma of the Skin	28.3	35.5#	1.0	27.8	31.5	1.1
Prostate	119.4#	97.4	185.7#	104.7	95.4	169.5
Females						
	Alabama			United States		
	All Races	White	Black	All Races	White	Black
All Sites	402.3^	407.5^	382.4^	420.0	427.6	399.1
Lung and Bronchus	50.4	54.4	38.1^	51.2	53.4	47.6
Colon and Rectum	38.2#	36.0#	44.5#	34.0	33.3	39.1
Melanoma of the Skin	16.6	22.5#	0.9	17.1	20.1	0.9
Breast	122.0^	119.7^	125.2	124.9	126.3	124.0
Cervix	9.3#	9.1#	10.2#	7.6	7.4	8.9

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard.

*All rates are for malignant cases only, except the rates for All Sites, which includes bladder cancer *in situ*.

#The incidence rate for Alabama is significantly higher than the incidence rate for the United States (p<0.05).

^The incidence rate for Alabama is significantly lower than the incidence rate for the United States (p<0.05).

Sources: Alabama Data: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2012-2016. United States Data: NAACCR CINA+ Online, 2019. Data Years: 2012-2016.

Table 12. Alabama and United States Cancer Mortality Rates, by Site, Race, and Sex, 2007-2016

Males and Females						
	Alabama			United States		
	All Races	White	Black	All Races	White	Black
All Sites	185.3#	180.7#	207.9#	167.1	167.3	194.7
Lung and Bronchus	55.4#	56.9#	50.3#	44.8	45.6	47.7
Colon and Rectum	16.6#	15.2#	22.9#	14.9	14.5	20.2
Melanoma of the Skin	2.7	3.4#	0.4	2.6	3.0	0.4
Males						
	Alabama			United States		
	All Races	White	Black	All Races	White	Black
All Sites	237.2#	228.7#	283.1#	201.4	200.7	248.2
Lung and Bronchus	77.5#	76.9#	81.8#	56.1	56.1	67.9
Colon and Rectum	20.5#	18.8#	28.9#	17.8	17.3	25.3
Melanoma of the Skin	4.2	5.2#	0.4	3.9	4.5	0.4
Prostate	24.6#	19.1	53.0#	20.6	19.2	42.9
Females						
	Alabama			United States		
	All Races	White	Black	All Races	White	Black
All Sites	148.8#	145.8#	162.5	142.6	143.1	162.0
Lung and Bronchus	39.0#	41.8#	29.6^	36.3	37.6	34.2
Colon and Rectum	13.6#	12.3	18.8#	12.6	12.3	16.8
Melanoma of the Skin	1.6	2.1	0.4	1.6	1.9	0.3
Breast	22.2#	20.1^	29.2	21.4	20.9	29.3
Cervix	3.3#	2.8#	4.9#	2.3	2.1	3.8

Rates are per 100,000 and age-adjusted to the 2000 US (19 age groups) standard.

#The mortality rate for Alabama is significantly higher than the incidence rate for the United States (p<0.05).

^The mortality rate for Alabama is significantly lower than the incidence rate for the United States (p<0.05).

Sources: Alabama Data: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2007-2016. United States Data: CDC WONDER, 2019. Data Years: 2007-2016.

Cancer Screening and Lifestyle Behaviors Tables

Table 13. Percentage of Tobacco Use, Adults and High School Students, Alabama and the US, 2017

Current Cigarette Smoking	Alabama	United States
Total Adults	20.9	16.3
Male Adults	23.4	18.6
Female Adults	18.7	14.2
Low Education	35.8	26.7
White	20.5	17.1
Black	21.7	18.5
Total High School Students	14.0	10.8
Male High School Students	13.4	11.8
Female High School Students	14.3	9.7
White High School Students	16.3	12.4
Black High School Students	9.3	6.5

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance System, Centers for Disease Control and Prevention.

Table 14. Percentage of Colorectal Cancer Screening, Adults 50 and Older, Alabama and the US, 2016

Sigmoidoscopy/Colonoscopy	Alabama	United States
Total Adults	71.7	69.4
Male Adults	69.6	67.9
Female Adults	73.4	70.7
White	72.5	73.0
Black	69.9	67.3
Low Education	62.3	54.8
Fecal Occult Blood Test in the Past 3 Years	Alabama	United States
Total Adults	15.0	17.5
Male Adults	14.8	16.8
Female Adults	15.2	18.2
White	14.0	16.7
Black	17.2	19.2
Low Education	15.4	16.2

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Table 15. Percentage of Breast Cancer Screening, Women 40 and Older, Alabama and the US, 2016

Mammogram in the Past 2 Years	Alabama	United States
40 Years and Older	72.7	72.5
White	70.8	72.4
Black	78.0	77.7
Low Education	66.4	65.9

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Table 16. Percentage of Prostate Cancer Screening, Men 50 and Older, Alabama and the US, 2016

PSA within the Past 2 Years	Alabama	United States
50-59 Years Old	36.1	34.6
60-64 Years Old	52.1	47.6
65 Years and Older	62.9	55.3
White	56.5	51.6
Black, 45 Years and Older	46.3	41.5
Low Education	26.1	30.4

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Table 17. Percentage of Cervical Cancer Screening, Women 21-65, Alabama and the US, 2016

Pap Test within the Past 3 Years	Alabama	United States
Total 18 Years and Older	79.5	80.1
White	80.1	81.1
Black	83.7	82.0
Low Education	63.2	74.9

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Table 18. Percentage of Fruit and Vegetable Intake, Adults 18 and Older, Alabama and the US, 2017

Consuming Vegetables Less than One Time Daily	Alabama	United States
Total	19.3	19.3
Male	20.7	21.7
Female	18.1	17.0
White	16.6	15.1
Black	27.8	24.8
Low Education	25.5	35.5
Consuming Fruit Less than One Time Daily	Alabama	United States
Total	44.9	36.2
Male	47.9	39.5
Female	42.2	33.1
White	46.1	36.1
Black	43.8	39.6
Low Education	56.1	40.9

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Table 19. Percentage of Physical Activity, Adults 18 and Older, Alabama and the US, 2017

Participated in ≥150 Minutes Aerobic Physical Activity per Week	Alabama	United States
Total	42.8	50.0
Male	45.1	51.3
Female	40.7	48.7
White	44.0	53.1
Black	38.7	43.5
Low Education	31.2	36.5

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Table 20. Percentage of Overweight/Obese,* Adults 18 and Older, Alabama and the US, 2017

Overweight	Alabama	United States
Total	70.2	65.4
Male	72.9	70.9
Female	67.6	59.8
White	68.0	64.7
Black	74.9	72.4
Low Education	70.9	69.7

Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention. *BMI 25 and over.

Sources

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3. Alabama Data: Alabama Statewide Cancer Registry (ASCR), 2019. Data Years: 2011-2015. Alabama Department of Public Health. US Data: NAACCR CINA+ Online, 2019. Data Years: 2011-2015.
4. Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), National Vital Statistics System (NVSS), 2019. wonder.cdc.gov/cancer.html. Data Years: 2007-2016.
5. Behavioral Risk Factor Surveillance System, 2019. Centers for Disease Control and Prevention.

Technical Notes

International Classification of Diseases (ICD) codes used for this report were based on the North American Association of Central Cancer Registries (NAACCR) list for incidence and mortality. The International Classification of Diseases for Oncology, Third Edition (2000) was used for incidence data. The International Classification of Diseases, Tenth Revision, Clinical Modification (2003) was used for mortality data. The 95 percent confidence intervals were calculated for incidence and mortality data and used to determine the level of significance when comparing two rates. If the confidence intervals overlapped, it was determined that no difference existed between the two rates.

Materials & Methods

Population Estimates

The population estimates for the denominators of incidence and mortality rates are race-specific (all races, white, black) and sex-specific county population estimates. The county population estimates were incorporated into the National Cancer Institute's (NCI) SEER*Stat software to calculate cancer incidence and mortality rates. The SEER*Stat population estimates are a slight modification of the annual time series of July 1 county population estimates (by age, sex, and race) produced by the Population Estimates Program of the US Bureau of the Census with support from NCI through an interagency agreement.

Data Sources

Data from cancer registries, health information departments, histopathologic laboratories, and physician offices were reported to the Alabama Statewide Cancer Registry (ASCR) as of January 7, 2019. For cancer cases diagnosed during 2007-2016, the ASCR considered as reportable all incident cases with a behavior code of 3 (invasive, primary site only) in the International Classification of Diseases for Oncology (ICDO) Third Edition, except for *in situ* cancer of the bladder, which was included. Basal and squamous cell carcinomas of the skin were excluded, except for those on the skin of the genital organs. The primary source of cancer incidence data is medical records. Staff at health care facilities abstract cancer incidence data from patients' medical records, enter the data into the facility's own cancer registry if it has one, and send the data to the ASCR. All reporting sources collect data using uniform data items and codes as documented by the North American Association of Central Cancer Registries. This uniformity means that data items collected by all reporting sources are comparable. For this report, information on primary cancer sites was coded according to the appropriate ICDO edition and was grouped according to revised SEER recodes dated March 19, 2013, which define standard groupings of primary cancer sites. The SEER/World Health Organization 2008 recodes were used to ensure consistent site-type definitions over time and consistency with other published cancer incidence and mortality data. Invalid site codes were excluded from the analysis.

Age-adjusted Incidence Rates

Because the occurrence of many cancers increases with age and because the age distribution of a population (i.e., the number of people in particular age categories) can change over time and can be different in different geographic areas, researchers age adjust incidence rates so that they can make a valid comparison between one year's rates and those of another year or between one geographic area's rates and those of another area. Age adjusting the rates ensures that differences in incidence from one year to another or from one geographic area to

another are not due to differences in age distribution. The standard population used to age adjust the rates for this report is the 2000 US standard population, in accordance with a 1998 Department of Health and Human Services recommendation. The 2000 US standard population is based on the proportion of the 2000 population in specific age groups. The proportions of the 2000 population in these age groups serve as weights for calculating age-adjusted incidence rates.

Age-adjusted Mortality Rates

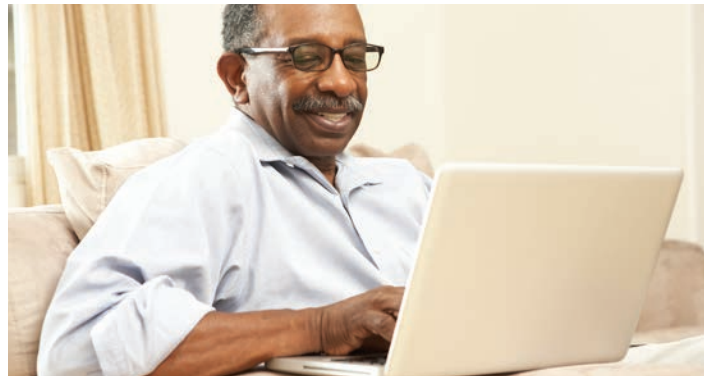
Mortality data for Alabama was obtained from the Alabama Department of Public Health Center for Health Statistics, and age-adjusted rates were calculated using the 2000 US standard population. Prior to the release of *Alabama Cancer Facts & Figures 2007*, cancer deaths of Alabama residents that occurred outside of the state were omitted from the rates. Beginning with *Alabama Cancer Facts & Figures 2007*, these deaths were included in the rate calculations.

Annual Percentage Change

The annual percentage change (APC) is a summary statistic that represents the average rate of change in a rate over a defined time period and is used to measure trends over time. The APC is calculated by fitting a least squares regression line to the natural logarithm of the rates using the calendar year as a regressor variable.

Interpreting the Data

Published age-adjusted cancer incidence and mortality rates for years before 1999 were calculated using standard populations other than the 2000 US standard population. Beginning with the publication of data for the 1999 diagnosis year, or year of death, cancer incidence and mortality rates were age adjusted to the 2000 US standard population. This change was motivated by a need to standardize age-adjustment procedures across publications and to update the calculation of age-adjusted rates to more closely reflect the current age distribution of the US population and the current burden of cancer. Because of the aging of the US population, the 2000 US standard population gives more weight to older age categories than did previous standard populations.



Caution should be used when comparing the data published here with cancer incidence and mortality rates adjusted to standard populations other than the 2000 US standard population. Geographic variation in incidence and mortality rates may be the result of regional differences in the exposure of the population to known or unknown risk factors. Differences may arise because of differences in sociodemographic characteristics of the populations (e.g., age, race, or ethnicity, geographic region, urban, or rural residence), screening use, health-related behaviors (e.g., behaviors related to tobacco use, diet, physical activity), exposure to cancer-causing agents, or factors related to registry operations (e.g., completeness, timeliness, specificity in coding cancer sites). Work continues to ensure the reporting of high-quality data. Please note that differences in registry database completeness and data quality do influence the estimated cancer incidence rates. Because 2016 cases were estimated to be 97 percent complete at the time of this publication, some rates, especially all sites combined, may vary slightly from the “true” or final rates for the Alabama population. The rates presented here have not been adjusted for completeness differences across the database. The ASCR may update the previous years’ data as cancer registries submit data for the new diagnosis year and additional cases from the previous diagnosis years. Users of cancer incidence data should be mindful of this issue for all data used in their comparisons. Race information reported to the ASCR is not self-reported by the patient. Information on race is abstracted from medical records, coded according to standard procedures, and grouped into standard race groupings. In this *Alabama Cancer Facts & Figures* report, cancer incidence and mortality data are presented for all races combined and for white and black populations in Alabama.

American Cancer Society Patient and Caregiver Services

For the more than 1.7 million people who are expected to be diagnosed with cancer in 2019 and the more than 15.5 million US cancer survivors, the American Cancer Society is here when and where they need us. We provide patients and caregivers with resources that can help improve – and even – save lives. From free rides to treatment and other cancer-related appointments, places to stay when treatment is far from home, and our 24/7 helpline, we're here for everyone with cancer questions and concerns.

Cancer Information

Caring, trained American Cancer Society staff connect people to answers about a cancer diagnosis, health insurance assistance, American Cancer Society programs and services, and referrals to other services at our 24/7 helpline at 1-800-227-2345. Our website, cancer.org, offers reliable and accurate cancer information and news, including current information on treatments and side effects for every major cancer type, and programs and services nearby. We also help people who speak languages other than English or Spanish find the assistance they need at cancer.org/easyreading or cancer.org/cancer-information-in-other-languages.

The American Cancer Society also publishes brochures and books that cover a multitude of topics, from patient education, quality of life, and caregiving issues to healthy living. Visit cancer.org/bookstore for a list of books that are available to order. All of our books are also available from all major book retailers such as Amazon and Barnes & Noble. Call 1-800-227-2345 or visit cancer.org for brochures. We also publish three peer-reviewed scientific journals for health care providers and researchers: *Cancer*, *Cancer Cytopathology*, and *CA: A Cancer Journal for Clinicians*. Visit cancer.org/health-care-professionals/resources-for-professionals.html to learn about the journals and their content.

Programs and Services

Survivorship: American Cancer Society survivorship work aims to help people living with and beyond cancer from diagnosis through long-term survivorship to the end of life. Efforts focus on helping survivors understand and access treatment; manage their ongoing physical, psychosocial, and functional problems; and engage in healthy behaviors to optimize their wellness. Our posttreatment survivorship care guidelines are designed to promote survivor healthiness and quality of life by facilitating the delivery of high-quality, comprehensive, coordinated clinical follow-up care. Our survivorship research efforts focus on understanding the impact of cancer on multiple facets of survivors' lives and on developing and testing interventions to help survivors actively engage in their health care and improve their health and well-being through and beyond treatment. Through the National Cancer Survivorship Resource Center, a collaboration between the American Cancer Society and the George Washington University Cancer Center, funded by the Centers for Disease Control and Prevention, we created the Cancer Survivorship E-Learning Series for Primary Care Providers. The free e-learning program is designed to teach clinicians how to care for survivors of adult-onset cancers.

Support for caregivers: Approximately 7 percent of the US population is made up of family caregivers of a loved one with cancer, and we are committed to meeting their information, education, and support needs. Approximately 4 percent of the US population is surviving cancer, meaning the ratio of family caregivers to cancer survivors is nearly double, supporting the notion that cancer is not isolated only to the individual diagnosed but rather impacts an entire family unit and network of close friends. One of the informational tools we offer caregivers is our *Caregiver Resource Guide*, which can help them: learn to care for themselves as a caregiver, better understand what their loved one is going through, develop skills for coping and caring, and take steps to help protect their own health and well-being.

Help navigating the health care system: Learning how to navigate the cancer journey and the health care system can be overwhelming for anyone, but it is particularly difficult for those who are medically underserved, those who experience language or health literacy barriers, and those with limited resources. The American Cancer Society Patient Navigator Program reaches those most in need. It has specially trained patient navigators across the country who can help: find transportation to treatment and other cancer-related appointments; assist with medical financial issues, including insurance navigation; identify community resources; and provide information on a patient's cancer diagnosis and treatment process. In 2018, more than 34,000 people relied on the program to help them through their diagnosis and treatment.

Transportation to treatment: When transportation to treatment is a concern, the American Cancer Society may be able to help provide the rides. Our Road To Recovery[®] program offers free rides to cancer patients who would otherwise have difficulty getting to their cancer-related appointments, thanks to volunteer drivers, transportation partners, or community organizations.

Lodging during treatment: The American Cancer Society Hope Lodge[®] program provides a free home away from home for cancer patients and their caregivers. More than just a roof over their heads, it's a nurturing community that helps patients access the care they need. In 2018, more than 30 Hope Lodge locations provided more than 477,000 nights of free lodging to more than 27,000 patients and caregivers – saving them approximately \$49 million in hotel expenses. Through our Hotel Partners Program, we also partner with local hotels to provide free or discounted lodging for patients who are not able to make frequent trips for treatment appointments.

Breast cancer support: Through the American Cancer Society Reach To Recovery[®] program, breast cancer patients are connected with trained volunteers to provide peer-to-peer support on everything from practical and emotional issues to helping them cope with their disease, treatment, and long-term survivorship issues. In 2018, the program provided more than 5,400 services.

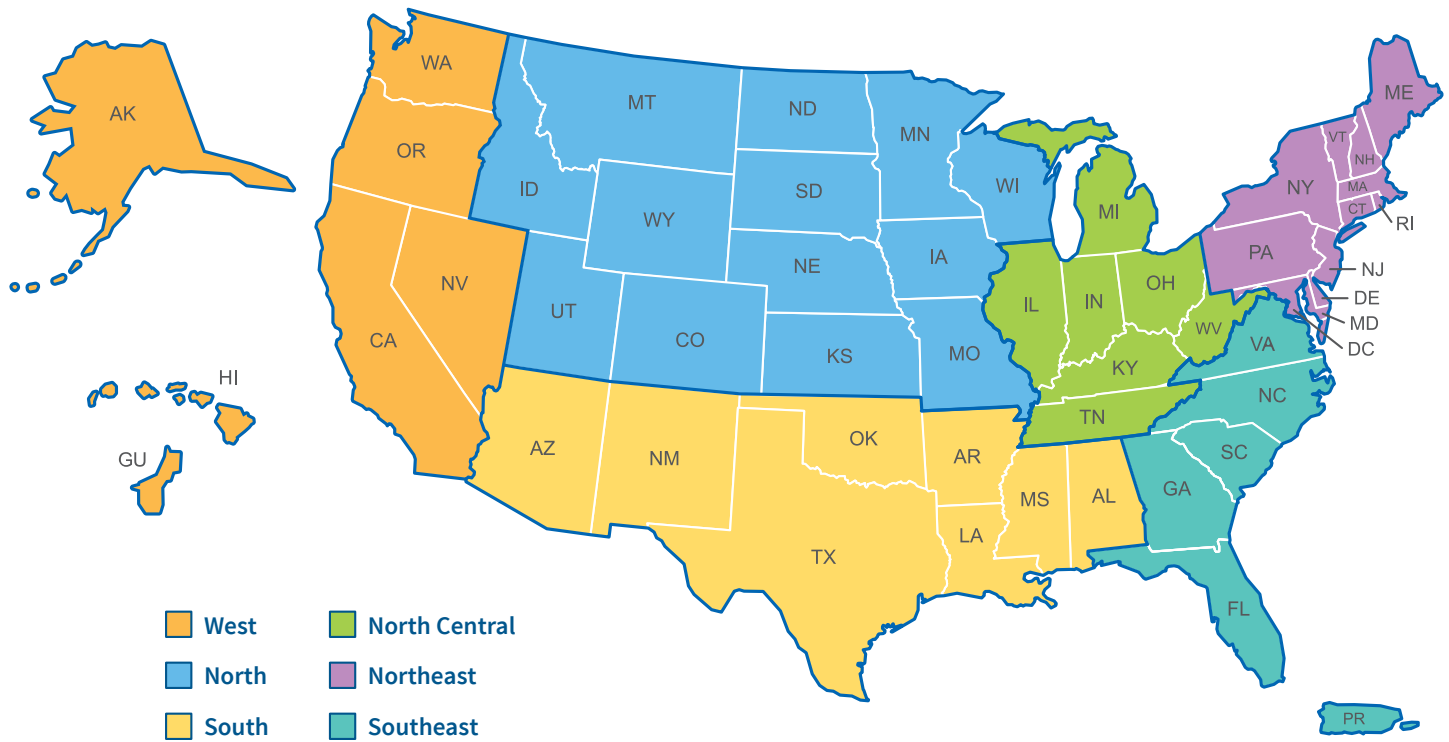


Hair-loss and mastectomy products: Cancer and cancer treatment can have profound effects, including some that alter a patient's appearance, such as hair loss. The American Cancer Society "tlc" Tender Loving Care[®] program helps women with appearance-related side effects by offering them a variety of affordable wigs, hats, and scarves, as well as a full range of mastectomy products. These items can be purchased in the privacy of their own home by calling 1-800-850-9445 or visiting the "tlc"[™] website at tlcdirect.org.

Finding hope and inspiration: The American Cancer Society Cancer Survivors Network[®] provides a safe online connection where cancer patients can find others with similar experiences and interests. At csn.cancer.org, members can participate on discussion boards, join the chat room, and build their own support network from among the members.



American Cancer Society Regional Map



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The American Cancer Society's mission
is to **save lives, celebrate lives,**
and **lead the fight** for a world without cancer.



Attacking from every angle.™

