Alabama Cancer Facts & Figures

2014











Alabama Department of Public Health Letter



TATE OF ALABAMA DEPARTMENT OF PUBLIC HEALTH

Donald E. Williamson, MD State Health Officer

May 2015

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 slightly more than 55 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. hald E. Williamson, M.D.

State Health Officer

American Cancer Society Letter

Dear Alabamians,

I am pleased to present *Alabama Cancer Facts & Figures 2014*. The American Cancer Society and the Alabama Department of Public Health have collaborated to produce this summary report about cancer in our state. Stakeholders in cancer control will use this document to measure progress in meeting the objectives outlined in the Alabama Comprehensive Cancer Control Coalition five-year plan. Cancer patients, health care and public health professionals, policy makers, advocates, news organizations, researchers, and the public will hopefully find this publication useful when seeking details and easy-to-read information about cancer in Alabama.

This report shows the risk of developing several common cancers is falling and is a testament to the concerted work of many stakeholders across the state. Efforts to reduce smoking, increase screening, and improve awareness about cancer prevention have made an impact on cancer in Alabama. A large number of the cancer-related deaths could be prevented if people in Alabama lead a healthier lifestyle by avoiding tobacco products, maintaining a healthy weight and diet, and exercising regularly. The American Cancer Society and all of our partners are dedicated to improving the health of the people of Alabama.

Please join us in the fight to help reduce the burden of cancer for all Alabamians and to eliminate disease as a cause of illness and death. Help us by living a healthy life, staying up to date on your cancer screenings, volunteering with the American Cancer Society, joining the Alabama Comprehensive Cancer Control Coalition, supporting cancer research, and being an advocate for cancer control in your community and across Alabama.

Sincerely,

Matt Allin

Matt Allison Health System Manager American Cancer Society, Inc. Mid-South Division

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Visit the Alabama Statewide Cancer Registry website at adph.org/ascr for additional copies of the *Alabama Cancer Facts & Figures 2014*.

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. Cancer is caused by both external factors (tobacco, infectious organisms, chemicals, and radiation) and internal factors (inherited mutations, hormones, immune conditions, and mutations that occur from metabolism). These causal factors may act together or in sequence to initiate or promote the development of cancer. Ten or more years often pass between exposure to external factors and detectable cancer. Cancer is treated with surgery, radiation, chemotherapy, hormone therapy, immune therapy, and targeted therapy.¹

Can Cancer Be Prevented?

A substantial proportion of cancers could be prevented. All cancers caused by cigarette smoking and heavy use of alcohol could be prevented completely. In 2014, almost 176,000 of the estimated 585,720 cancer deaths will be caused by tobacco use. In addition, the World Cancer Research Fund has estimated that up to one-third of the cancer cases that occur in economically developed countries like the US are related to overweight or obesity, physical inactivity, and/or poor nutrition, and thus could also be prevented. Certain cancers are related to infectious agents, such as hepatitis B virus (HBV), human papillomavirus (HPV), human immunodeficiency virus (HIV), and Helicobacter pylori (H. pylori). Many of these cancers could be prevented through behavioral changes or the use of protective vaccinations or antibiotic treatments. Many of the more than 3 million skin cancer cases that are diagnosed annually could be prevented by protecting skin from excessive sun exposure and avoiding indoor tanning.1

Regular screening examinations by a health care professional can result in the detection and removal of precancerous growths, as well as the diagnosis of cancers at an early stage, when they are most treatable. Cancers of the cervix, colon, and rectum can be prevented by removal of precancerous tissue. Cancers that can be diagnosed early through screening include cancers of the breast, colon, rectum, cervix, prostate, oral cavity, and skin. A heightened awareness of changes in the breast or skin may also result in detection of these tumors at earlier stages.

Who Is at Risk?

Anyone can develop cancer. Since the risk of being diagnosed with cancer increases with age, most cases occur in adults who are middle-aged or older. About 77% of all cancers are diagnosed in people 55 and older.¹ Cancer researchers use the word "risk" in different ways, most commonly expressing risk as lifetime risk or relative risk. *Lifetime risk* refers to the probability that an individual will develop or die from cancer over the course of a lifetime. In the US, men have slightly less than a 1 in 2 lifetime risk of developing cancer; for women, the risk is a little more than 1 in 3.1 Relative risk is a measure of the strength of the relationship between risk factors and a particular cancer. It compares the risk of developing cancer in people with a certain exposure or trait to the risk in people who do not have this characteristic. For example, male smokers are about 23 times more likely to develop lung cancer than nonsmokers, so their relative risk is 23. Women who have a first-degree relative (mother, sister, or daughter) with a history of breast cancer have about twice the risk of developing breast cancer compared to women who do not have a family history.¹

How Many New Cancer Cases Are Expected To Occur in 2014 in Alabama?

In Alabama, there will be approximately 26,770 new cancer cases in 2014; approximately 73 people will hear that they have been diagnosed with cancer each day.¹

Estimated New Cancer Cases for Selected Cancer Sites, Alabama, 2014*

Site	New Cases
All Sites	26,770
Female Breast	3,660
Uterine Cervix	210
Colon and Rectum	2,350
Uterine Corpus	650
Leukemia	690
Lung and Bronchus	4,160
Melanoma	1,320
Non-Hodgkin Lymphoma	990
Prostate	3,760
Urinary Bladder	990

*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 2014*. Atlanta: American Cancer Society.

How Many People Are Expected to Die of Cancer in 2014 in Alabama?

In Alabama, 10,510 people are expected to die of cancer this year. Lung cancer will account for 3,310 deaths, which is approximately 31% of all estimated cancer deaths in Alabama.¹

Estimated Cancer Deaths for Selected Cancer Sites, Alabama, 2014*

Site	Deaths
All Sites	10,510
Brain/Nervous System	270
Female Breast	690
Colon and Rectum	950
Leukemia	410
Liver	350
Lung and Bronchus	3,310
Non-Hodgkin Lymphoma	310
Ovary	280
Pancreas	630
Prostate	540
*Rounded to the nearest 10	

*Rounded to the nearest 10.

Source: American Cancer Society, *Cancer Facts & Figures 2014*. Atlanta: American Cancer Society.

All Cancers

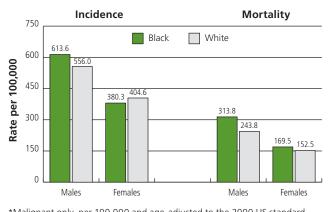
Incidence Rates

For both genders combined, Alabama's cancer incidence rate is 471.2 – higher than the US rate of 467.6.³ (See Table 11, page 24.) Males in Alabama have a higher cancer incidence rate than females, with a rate of 572.0 versus 398.7.³ Among males, black males have a higher cancer incidence rate than white males, with a rate of 613.⁶ versus 556.0.³ Among females, white females have a higher cancer incidence rate than black females, with a rate of 404.6 versus 380.3.³ (See Figure 1 and Table 11, page 24.)

Mortality Rates

For both genders combined, Alabama's cancer mortality rate is 195.8 – higher than the US rate of 182.3.^{2.4} Males in Alabama have a higher cancer mortality rate than females with a rate of 255.1 versus 155.7.² Among males, black males have a higher cancer mortality rate than white males with a rate of 313.8 versus 243.8.² Among females, black females have a higher cancer mortality rate than white females with a rate of 169.5 versus 152.5.² (See Figure 1 and Table 12, page 24.)

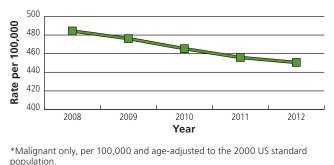
Figure 1: All Sites Cancer Incidence and Mortality Rates*, by Sex and Race, Alabama



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

Source: Alabama Statewide Cancer Registry, 2014. Cancer Incidence (2007-2011), Cancer Mortality (2003-2012).





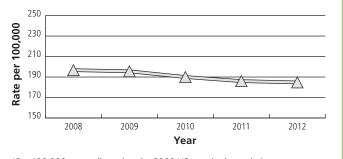
Source: Alabama Statewide Cancer Registry, 2014.

Trends

Between 2008 and 2012, the percentage change for all sites cancer incidence in Alabama had an overall decrease of 7.0%; the annual percentage change during this time was -1.9%.² The decrease in cancer incidence was found to be statistically significant. (See Figure 2 and Table 2, page 12.)

Between 2008 and 2012, the percentage change for all sites cancer mortality in Alabama had an overall decrease of 6.1%; the annual percentage change during this time was -1.7%.² The decrease in cancer mortality was found to be statistically significant. (See Figure 3 and Table 10, page 23.)





*Per 100,000, age-adjusted to the 2000 US standard population. **Source:** Alabama Statewide Cancer Registry, 2014.

Selected Cancers

Lung Cancer

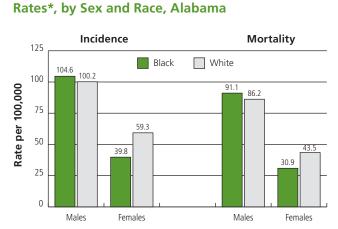
2014 Estimates

In 2014, an estimated 4,160 new cases of lung and bronchus cancer and approximately 3,310 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 74.5 – significantly higher than the US rate of 64.9.³ (See Table 11, page 24.) Males in Alabama have a higher lung cancer incidence rate than females, with a rate of 100.7 versus 55.0.³ Among males in Alabama, black males have a higher lung cancer incidence rate than white males, with a rate of 104.6

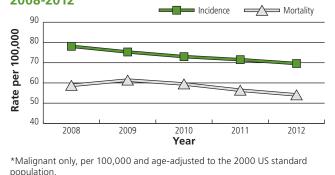
Figure 4: Lung Cancer Incidence and Mortality



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

Source: Alabama Statewide Cancer Registry, 2014. Cancer Incidence (2007-2011), Cancer Mortality (2003-2012).

Figure 5: Trends in Lung Cancer Incidence and Mortality Rates*, Males and Females, Alabama, 2008-2012



Source: Alabama Statewide Cancer Registry, 2014.

versus 100.2.³ Among females in Alabama, white females have a higher lung cancer incidence rate than black females, with a rate of 59.3 versus 39.8.³ (See Figure 4 and Table 11, page 24.)

Mortality Rates

For both genders combined, the lung cancer mortality rate in Alabama is 60.0 – significantly higher than the US rate of 49.6.^{2,4} Males in Alabama have a higher lung cancer mortality rate than females, with a rate of 86.8 versus 40.7.² Among males in Alabama, black males have a higher lung cancer mortality rate than white males, with a rate of 91.1 versus 86.2.² Among females in Alabama, white females have a higher lung cancer mortality rate than black females, with a rate of 43.5 versus 30.9.² (See Figure 4 and Table 12, page 24.)

Trends

Between 2008 and 2012, the percentage change for lung cancer incidence in Alabama had an overall decrease of 10.9%; the annual percentage change during this time was -2.8%.² For lung cancer mortality between 2008 and 2012, the percentage change had an overall decrease of 8.1%; the annual percentage change during this time was -2.5%.² Although the decrease in incidence was found to be statistically significant, the decrease in mortality was not statistically significant. (See Figure 5 and Table 2, page 12, and Table 10, page 23.)

Risk Factors

Cigarette smoking is by far the most important risk factor for lung cancer. Risk increases with quantity and duration of cigarette consumption. Cigar and pipe smoking also increase risk. Other risk factors include occupational or environmental exposure to secondhand smoke, radon, asbestos (particularly among smokers), certain metals (chromium, cadmium, arsenic), some organic chemicals, radiation, air pollution, diesel exhaust, and paint.¹ Genetic susceptibility can also play a contributing role in the development of lung cancer, especially in those who develop lung cancer at a younger age.¹

Tobacco Use

Alabama adults and Alabama youth have higher rates of cigarette smoking than the national averages. While 21.5% of Alabama adults and 18.0% of Alabama youth smoke, the national averages are 19.0% and 15.7%, respectively.⁵ Adults with low levels of education have the highest rates of cigarette smoking in Alabama.⁵ (See Table 13, page 25, for additional information on smoking rates in Alabama and the US.)

Colorectal Cancer

2014 Estimates

In 2014, an estimated 2,350 new cases of colorectal cancer and approximately 950 colorectal cancer deaths are expected to occur in Alabama.¹

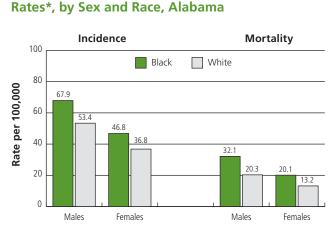
Incidence Rates

For both genders combined, the colorectal cancer incidence rate in Alabama is 46.5 – significantly higher than the US rate of 43.3.³ (See Table 11, page 24.) Males in Alabama have a higher colorectal cancer incidence rate than females, with a rate of 56.0 versus 38.9.³ Among males in Alabama, black males have a higher colorectal cancer incidence rate than white males, with a rate of 67.9 versus 53.4.³ Among females in Alabama, black females have a higher colorectal cancer incidence rate than white females, with a rate of 46.8 versus 36.8.³ (See Figure 6 and Table 11, page 24.)

Mortality Rates

For both genders combined, the colorectal cancer mortality rate in Alabama is 17.8 - significantly higher than the US rate of 16.9.^{2,4} Males in Alabama have a higher colorectal cancer mortality rate than females, with a rate of 22.3 versus 14.6.²

Figure 6: Colorectal Cancer Incidence and Mortality

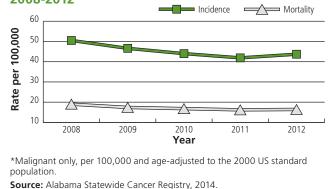


*Malignant only, per 100,000 and age-adjusted to the 2000 US standard population.

Source: Alabama Statewide Cancer Registry, 2014.

Cancer Incidence (2007-2011), Cancer Mortality (2003-2012).

Figure 7: Trends in Colorectal Cancer Incidence and Mortality Rates*, Males and Females, Alabama, 2008-2012



Among males in Alabama, black males have a higher colorectal cancer mortality rate than white males, with a rate of 32.1 versus 20.3.² Among females in Alabama, black females have a higher colorectal cancer mortality rate than white females, with a rate of 20.1 versus 13.2.² (See Figure 6 and Table 12, page 24.)

Trends

Between 2008 and 2012, the percentage change for colorectal cancer incidence in Alabama had an overall decrease of 13.5%; the annual percentage change during this time was -3.9%.² For colorectal cancer mortality between 2008 and 2012, the percentage change had an overall decrease of 13.9%; the annual percentage change during this time was -3.7%.² The trend in colorectal cancer mortality was statistically significant, and the trend in incidence was borderline significant. (See Figure 7 and Table 2, page 12, and Table 10, page 23.)

Risk Factors

The risk of colorectal cancer increases with age; 90% of cases are diagnosed in individuals over 50 years of age.¹ Risk is also increased by certain inherited genetic mutations (familial adenomatous polyposis [FAP] and hereditary non-polyposis colorectal cancer [HNPCC]), a personal or family history of colorectal cancer and/or polyps, or a personal history of chronic inflammatory bowel disease.¹ Several modifiable factors are associated with an increased risk of colorectal cancer. These include smoking, physical inactivity, obesity, heavy alcohol consumption, a diet high in red or processed meat, and inadequate intake of fruits and vegetables.¹

Early Detection

Beginning at age 50, men and women who are at average risk for developing colorectal cancer should begin screening. Screening can result in the detection and removal of colorectal polyps before they become cancerous, as well as detect cancers at an early stage.¹ When colorectal cancers are detected at an early, localized stage, the 5-year survival rate is 90%; however, only 40% of colorectal cancer cases are diagnosed at this stage, mostly due to underuse of screening.¹ After the cancer has spread regionally to involve adjacent organs or lymph nodes, the 5-year survival drops to 70%. For people with distant stage diagnosis, the 5-year survival rate is 13%.¹ For all adults 50 years of age and older, Alabama adults have similar rates of colorectal cancer screening compared to the national average.⁵ Adults with low education have the lowest colorectal cancer screening rates of all genders and races in Alabama.⁵ (See page 10 for the American Cancer Society's screening guidelines for the early detection of colorectal cancer and Table 14, page 25, for more information on colorectal cancer screening rates in Alabama and the US.)

Melanoma

2014 Estimates

In 2014, it is estimated that 1,320 new cases of melanoma will occur in Alabama.¹

Incidence Rates

For both genders combined, the melanoma incidence rate in Alabama is 21.0 – significantly higher than the US rate of 19.7.³ (See Table 11, page 24.) Males in Alabama have a higher melanoma incidence rate than females, with a rate of 28.2 versus 15.9.³ Among males in Alabama, white males have a significantly higher melanoma incidence rate than black males, with a rate of 35.1 versus 0.9.³ Among females in Alabama, white females have a significantly higher melanoma incidence rate than black females, with a rate of 21.1 versus 1.0.³ (See Figure 8 and Table 11, page 24.)

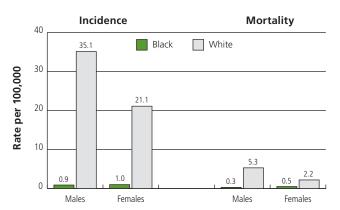
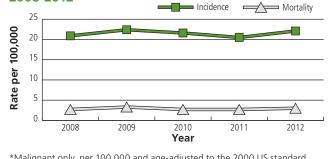


Figure 8: Melanoma Incidence and Mortality Rates*, by Sex and Race, Alabama

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

Source: Alabama Statewide Cancer Registry, 2014. Cancer Incidence (2007-2011), Cancer Mortality (2003-2012).

Figure 9: Trends in Melanoma Incidence and Mortality Rates*, Males and Females, Alabama, 2008-2012



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

Source: Alabama Statewide Cancer Registry, 2014.

Mortality Rates

For both genders combined, the melanoma mortality rate in Alabama is 2.8 – roughly the same as the US rate of 2.7.^{2,4} Males in Alabama have a higher melanoma mortality rate than females, with a rate of 4.4 versus 1.8.³ Among males in Alabama, white males have a higher melanoma mortality rate than black males, with a rate of 5.3 versus 0.3.³ Among females in Alabama, white females have a higher melanoma mortality rate than black females, with a rate of 2.2 versus 0.5.³ (See Figure 8 and Table 12, page 24.)

Trends

Between 2008 and 2012, the percentage change for melanoma incidence in Alabama had an overall increase of 5.9%; the annual percentage change during this time was 0.3%.² For melanoma mortality between 2008 and 2012, the percentage change had an overall increase of 10.7%; however, the annual percentage change during this time was -0.5%.² Neither trend was statistically significant. (See Figure 9 and Table 2, page 12, and Table 10, page 23.)

Risk Factors

Major risk factors for melanoma include a personal or family history of melanoma and the presence of atypical moles or a large number of moles (greater than 50). Other risk factors for all types of skin cancer include sun sensitivity (sunburning easily, difficulty tanning, natural blond or red hair color); a history of excessive sun exposure, including sunburns; use of tanning booths; diseases that suppress the immune system; and a past history of basal cell or squamous cell skin cancers.¹

Early Detection

The best way to detect skin cancer early is to recognize changes in skin growths or the appearance of new growths.¹ Adults should undergo regular dermatologic assessment and thoroughly examine their skin on a regular basis.¹ New or unusual lesions or a progressive change in a lesion's appearance size, shape, or color, etc. should be evaluated promptly by a physician.¹ A simple ABCD rule outlines the warning signals 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, with variable degrees of tan, brown, or black); D is for diameter greater than 6 millimeters (about the size of a pencil eraser).¹ 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%; the 5-year survival rates for regional and distant stage diseases are 62% and 16%, respectively.¹

Prostate Cancer

2014 Estimates

In 2014, an estimated 3,760 new cases of prostate cancer and approximately 540 prostate cancer deaths are expected to occur in Alabama.¹

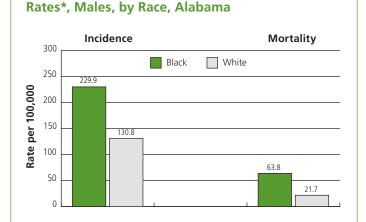
Incidence Rates

The prostate cancer incidence rate in Alabama is 154.9 – significantly higher than the US rate of 142.1.³ (See Table 11, page 24.) Black males in Alabama have a significantly higher prostate cancer incidence rate than white males, with a rate of 229.9 versus 130.8.³ (See Figure 10 and Table 11, page 24.)

Mortality Rates

The prostate cancer mortality rate in Alabama is 28.6 – significantly higher than the US rate of 23.2.^{2,4} Black males in Alabama have a significantly higher prostate cancer mortality rate than white males with a rate of 63.8 versus 21.7.² (See Figure 10 and Table 12, page 24.)

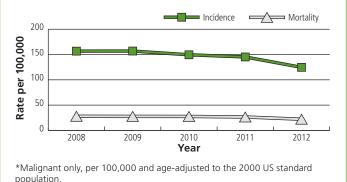
Figure 10: Prostate Cancer Incidence and Mortality



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

Source: Alabama Statewide Cancer Registry, 2014. Cancer Incidence (2007-2011), Cancer Mortality (2003-2012).

Figure 11: Trends in Prostate Cancer Incidence and Mortality Rates*, Males, Alabama, 2008-2012



Source: Alabama Statewide Cancer Registry, 2014.

Trends

Between 2008 and 2012, the percentage change for prostate cancer incidence in Alabama had an overall decrease of 20.4%; the annual percentage change during this time was -5.1% and was statistically significant.² For prostate cancer mortality between 2008 and 2012, the percentage change had an overall decrease of 20.7%; the annual percentage change during this time was -4.8% but was not statistically significant.² (See Figure 11 and Table 2, page 12, and Table 10, page 23.)

Risk Factors

Age, ethnicity, and family history are well-established risk factors for prostate cancer.¹ About 60% of all prostate cancer cases are diagnosed in men 65 years of age and older, and 97% occur in men 50 and older. African American men and Caribbean men of African descent have the highest prostate cancer incidence rates in the world.¹ Genetic studies suggest that strong familial disposition may account for 5-10% of prostate cancer cases. Studies suggest that a diet high in processed meat or dairy foods may be a risk factor, and obesity appears to increase risk of aggressive prostate cancer.¹

Early Detection

The American Cancer Society recommends that beginning at age 50, 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 screening. Prostate cancer screening should not occur without an informed decisionmaking process. The 5-year survival rate for prostate cancer is almost 100% when the cancer is diagnosed and treated at the local and regional stages.¹ Males in Alabama have higher rates of PSA screening than the US averages.⁸ Males of low education have the lowest rates of PSA screening of all groups.⁸ (See page 10 for the American Cancer Society's screening guidelines concerning the early detection of prostate cancer and Table 16, page 26, for more information on prostate cancer screening rates in Alabama and the US.)

Breast Cancer

2014 Estimates

In 2014, an estimated 3,660 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 119.1 – significantly lower than the US rate of 122.8.³ (See Table 11, page 24.) Black females in Alabama have a significantly higher breast cancer incidence rate than white females, with a rate of 124.6 versus 116.8.³ (See Figure 12 and Table 11, page 24.)

Mortality Rates

The female breast cancer mortality rate in Alabama is 23.4 – marginally higher than the US rate of 23.0.^{2,4} Black females in Alabama have a significantly higher breast cancer mortality rate than white females, with a rate of 30.9 versus 21.2.² (See Figure 12 and Table 12, page 24.)

Trends

Between 2008 and 2012, the percentage change for breast cancer incidence in Alabama had an overall decrease of 2.1%; the annual percentage change during this time was -0.7%.² For breast cancer mortality between 2008 and 2012, the percentage change had an overall decrease of 2.3%; the annual percentage change during this time was -0.8%.² Neither trend was statistically significant. (See Figure 13 and Table 2, page 12, and Table 10, page 23.)

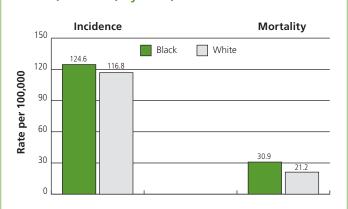
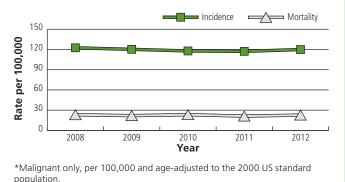


Figure 12: Breast Cancer Incidence and Mortality Rates*, Females, by Race, Alabama

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

Source: Alabama Statewide Cancer Registry, 2014. Cancer Incidence (2007-2011), Cancer Mortality (2003-2012).

Figure 13: Trends in Breast Cancer Incidence and Mortality Rates*, Females, Alabama, 2008-2012



Source: Alabama Statewide Cancer Registry, 2014.

Risk Factors

Aside from being female, age is the most important factor affecting breast cancer risk. Risk is also increased by inherited genetic mutations in the *BRCA1* and *BRCA2* genes, a personal or family history of breast cancer, high breast tissue density, biopsy-confirmed hyperplasia, high bone mineral density, and high-dose radiation to the chest, typically related to a medical procedure.¹ Reproductive factors that increase breast cancer risk include a long menstrual history (menstrual periods that start early and/or end late in life), never having children, recent use of oral contraceptives, and having one's first child after age 30.¹ Potentially modifiable risk factors include weight gain after age 18, being overweight or obese (for post-menopausal breast cancer), use of combined estrogen and progestin menopausal hormone therapy, physical inactivity, and alcohol consumption.¹

Early Detection

Mammography can detect breast cancer at an early stage, when treatment is more effective.¹ Steady declines in breast cancer mortality among women since 1989 have been attributed to a combination of early detection and improvements in treatment. When breast cancers are detected and diagnosed at the localized stage, the relative 5-year survival rate is 99%, compared to a rate of only 24% for breast cancers detected at the distant stage.¹ Alabama females have a slightly higher rate of mammography screening than the US average - 74.3% of Alabama females have had a mammogram in the past two years, compared to 74.0% of US females.⁵ Black females in Alabama 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 10 for the American Cancer Society's screening guidelines for the early detection of breast cancer and Table 15, page 25, for more information on breast cancer screening rates in Alabama and the US.)

Cervical Cancer

2014 Estimates

In 2014, it is estimated that 210 new cases of cervical cancer will occur in Alabama. $^{\rm 1}$

Incidence Rates

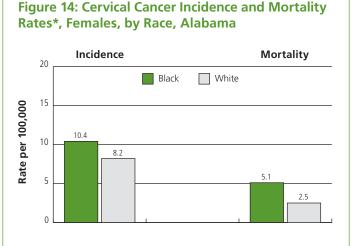
The cervical cancer incidence rate in Alabama is 8.6 – significantly higher than the US rate of 7.8.³ (See Table 11, page 24.) Black females in Alabama have a higher cervical cancer incidence rate than white females, with a rate of 10.4 versus 8.2.³ (See Figure 14 and Table 11, page 24.)

Mortality Rates

The cervical cancer mortality rate in Alabama is 3.0 - sig-nificantly higher than the US rate of 2.4.^{2.4} Black females in Alabama have a higher cervical cancer mortality rate than white females, with a rate of 5.1 versus 2.5.² (See Figure 14 and Table 12, page 24.)

Trends

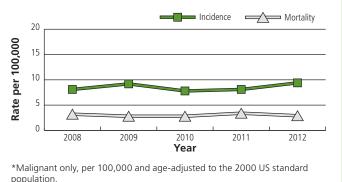
Between 2008 and 2012, the percentage change for cervical cancer incidence in Alabama had an overall increase of 16.5%; the annual percentage change during this time was 1.8%.² For cervical cancer mortality between 2008 and 2012, the percentage change had an overall decrease of 9.5%; the annual percentage change during this time was -0.2%.² Neither trend was statistically significant. (See Figure 15 and Table 2, page 12, and Table 10, page 23.)



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

Source: Alabama Statewide Cancer Registry, 2014. Cancer Incidence (2007-2011), Cancer Mortality (2003-2012).

Figure 15: Trends in Cervical Cancer Incidence and Mortality Rates*, Females, Alabama, 2008-2012



Source: Alabama Statewide Cancer Registry, 2014.

Risk Factors

The primary cause of cervical cancer is infection with certain types of human papillomavirus (HPV).¹ Women who begin having sex at an early age or who have many sexual partners are at increased risk for HPV and cervical cancer. However, a woman may be infected with HPV even if she has had only one sexual partner. Persistence of the infection and progression to cancer may be influenced by factors such as immunosuppression, high parity (number of childbirths), and cigarette smoking. Long-term use of oral contraceptives is also associated with increased risk of cervical cancer.¹

Prevention

The FDA has approved two vaccines (Gardasil and Cervarix) for use in females ages 9 to 26 for the prevention of the most common HPV infections that cause cervical cancer. The vaccines cannot protect against established infections, nor do they protect against all HPV types. Screening can prevent cervical cancer by detecting precancerous lesions. As screening has become more common, preinvasive lesions of the cervix are detected far more frequently than invasive cancer. The Pap test is the most widely used cervical cancer screening method.

Early Detection

The Pap test is a simple procedure in which a small sample of cells is collected from the cervix and examined.¹ When detected at a localized stage, the 5-year survival rate for invasive cervical cancer is 91%.¹ As a group, females 18 years of age and older in Alabama have a slightly higher rate of cervical cancer screening than the US average.⁵ Females of low education have the lowest rate of screening for all ages and races.⁵ (See page 10 for the American Cancer Society's screening guidelines for the early detection of cervical cancer and Table 17, page 26, 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 excessive weight gain at all ages. For those who are overweight or obese, losing even a small amount of weight has health benefits and is a good place to start.
- Get regular physical activity and limit intake of high-calorie foods and drinks as keys to help maintain a healthy weight.

Adopt a physically active lifestyle.

- Adults: Engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity each week (or a combination of these), preferably spread out over the week.
- Children and teens: Engage in at least 1 hour of moderate- to vigorous-intensity activity each day, with vigorous activity on at least 3 days per week.
- Limit sedentary behavior such as sitting, lying down, watching TV and other forms of screen-based entertainment.
- Doing some physicial activity above usual activities can have many health benefits.

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

- Choose foods and beverages in amounts that help achieve and maintain a healthy weight.
- Eat at least 2¹/₂ cups of vegetables and fruits each day.
- Choose whole grains instead of refined-grain products.
- Limit consumption of processed and red meats.

If you drink alcoholic beverages, limit consumption.

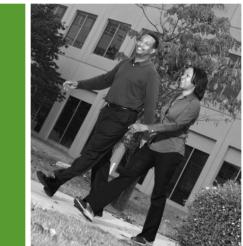
• Drink no more than 1 drink per day for women or 2 per day for men.

Community Action

Public, private, and community organizations should work together at national, state, and local levels to apply policy and environmental changes that:

- Increase access to affordable, healthy food in communities, places of work, and schools, and decrease access to and marketing of foods and drinks of low nutritional value, particularly to youth.
- Provide safe, enjoyable, and accessible environments for physical activity in schools and workplaces and for transportation and recreation in communities.









Cancer Site	Population	Test or Procedure	Frequency
Breast	Women, ages, 20+	Breast self-examination (BSE)	It is acceptable for women to choose not to do BSE or to do BSE regularly (monthly) or irregularly. Beginning in their early 20s, women should be told about the benefits and limitations of BSE. Whether or not a woman ever performs BSE, the importance of prompt reporting of any new breast symptoms to a health professional should be emphasized. Women who choose to do BSE should receive instruction and have their technique reviewed on the occasion of a periodic health examination.
		Clinical breast examination (CBE)	For women in their 20s and 30s, it is recommended that CBE be part of a periodic health examination, preferably at least every 3 years. Asymptomatic women ages 40 and over should continue to receive a CBE as part of a periodic health examination, preferably annually.
		Mammography	Begin annual mammography at age 40.*
Cervix	Women, ages 21-65	Pap test & HPV DNA test	Cervical cancer screening should begin at age 21. For women ages 21-29, screening should be done every 3 years with conventional or liquid-based Pap tests. For women ages 30-65, 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 65+ who have had \geq 3 consecutive negative Pap tests or \geq 2 consecutive negative HPV and Pap tests within the past 10 years, with the most recent test occurring within 5 years, and women who have had a total hysterectomy should stop cervical cancer screening. Women should not be screened annually by any method at any age.
Colorectal	Men and women, ages 50+	Fecal occult blood test (FOBT) with at least 50% test sensitivity for cancer, or fecal immunochemical test (FIT) with at least 50% test sensitivity for cancer, or	Annual, starting at age 50. Testing at home with adherence to manufacturer's recommendation for collection techniques and number of samples is recommended. FOBT with the single stool sample collected on the clinician's fingertip during a digital rectal examination is not recommended. Guaiac-based toilet bowl FOBT tests also are not recommended. 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, starting at age 50.
		Flexible sigmoidoscopy (FSIG), or	Every 5 years, starting at age 50. FSIG can be performed 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 (DCBE), or	Every 5 years, starting at age 50.
		Colonoscopy	Every 10 years, starting at age 50.
		CT Colonography	Every 5 years, starting at age 50.
Endometrial	Women, at menopause		women at average risk should be informed about risks and symptoms of endometrial cancer report any unexpected bleeding or spotting to their physicians.
Lung	Current or former smokers ages 55-74 in good health with at least a 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 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+	Digital rectal examination (DRE) and prostate-specific antigen test (PSA)	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.
Cancer- related checkup	Men and women, ages 20+	the thyroid, testicles, ovaries	ic health examination, the cancer-related checkup should include examination for cancers of s, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, rs, sexual practices, and environmental and occupational exposures.

*Beginning at age 40, annual clinical breast examination should be performed prior to mammography.

Cancer Incidence Tables

Table 1. Alabama Cancer Incidence Rates and Counts, by Site and Sex, 2003-2012 Combined

Males	Rate	Count	Females	Rate	Count
All Sites	564.5	129,287	All Sites	391.1	109,993
Oral Cavity and Pharynx	19.9	4,735	Oral Cavity and Pharynx	7.0	1,984
Digestive System	104.5	23,759	Digestive System	67.1	19,373
Esophagus	8.6	2,049	Esophagus	1.7	504
Stomach	8.7	1,925	Stomach	4.6	1,315
Small Intestine	2.6	594	Small Intestine	1.9	545
Colon and Rectum	57.4	12,970	Colon and Rectum	40.1	11,544
Colon Excluding Rectum	41.4	9,250	Colon Excluding Rectum	30.7	8,884
Rectum	16.0	3,720	Rectum	9.3	2,660
Anus, Anal Canal, and Anorectum	1.4	318	Anus, Anal Canal, and Anorectum	1.9	546
Liver and Intrahepatic Bile Duct	8.9	2,108	Liver and Intrahepatic Bile Duct	3.0	882
Gallbladder	0.8	155	Gallbladder	1.1	304
Pancreas	13.9	3,119	Pancreas	10.2	2,989
Other Digestive Organs	0.3	80	Other Digestive Organs	0.2	68
Respiratory System	112.9	25,826	Respiratory System	56.4	16,385
Larynx	9.1	2,184	Larynx	1.9	544
Lung and Bronchus	102.4	23,326	Lung and Bronchus	53.9	15,677
Bones and Joints	1.1	240	Bones and Joints	0.8	193
Soft Tissue Including Heart	3.7	813	Soft Tissue Including Heart	2.9	748
Skin (Excluding Basal and Squamous)	27.8	6,197	Skin (Excluding Basal and Squamous)	15.9	4,249
Melanoma of the Skin	26.0	5,819	Melanoma of the Skin	14.9	3,982
Other Non-Epithelial Skin	1.8	378	Other Non-Epithelial Skin	1.0	267
Breast	1.1	246	Breast	117.4	32,687
Female Genital System	*	*	Female Genital System	42.6	11,793
Cervix Uteri	*	*	Cervix Uteri	8.5	2,10
Corpus and Uterus, NOS	*	*	Corpus and Uterus, NOS	18.2	5,234
Corpus Uteri	*	*	Corpus Uteri	17.4	5,009
Uterus, NOS	*	*	Uterus, NOS	0.8	225
Ovary	*	*	Ovary	12.0	3,400
Vagina	*	*	Vagina	0.8	226
Vulva	*	*	Vulva	2.5	679
Other Female Genital Organs	*	*	Other Female Genital Organs	0.5	153
Male Genital System	157.3	37,126	Male Genital System	*	*
Prostate	151.7	35,893	Prostate	*	*
Testis	4.5	984	Testis	*	*
Penis	0.9	200	Penis	*	×
Other Male Genital Organs	0.2	49	Other Male Genital Organs	*	*
Urinary System	55.4	12,335	Urinary System	19.1	5,491
Urinary Bladder	33.1	7,116	Urinary Bladder	7.5	2,214
Kidney and Renal Pelvis	21.1	4,965	Kidney and Renal Pelvis	11.1	3,137
Ureter	0.8	177	Ureter	0.4	107
Other Urinary Organs	0.4	77	Other Urinary Organs	0.1	33
Eye and Orbit	1.2	269	Eye and Orbit	0.7	206
Brain and Other Nervous System	7.9	1,821	Brain and Other Nervous System	5.7	1,514
Endocrine System	4.9	1,147	Endocrine System	12.2	3.093
Thyroid	4.2	988	Thyroid	11.6	2,926
Other Endocrine Including Thymus	0.7	159	Other Endocrine Including Thymus	0.7	167
Lymphoma	22.8	5,114	Lymphoma	15.9	4,447
Hodgkin Lymphoma	2.7	616	Hodgkin Lymphoma	2.1	511
Non-Hodgkin Lymphoma	20.1	4,498	Non-Hodgkin Lymphoma	13.8	3,936
Myeloma	7.6	1,709	Myeloma	5.0	1,448
Leukemia	14.9	3,252	Leukemia	9.2	2,527
Lymphocytic Leukemia	7.2	3,252	Lymphocytic Leukemia	4.0	2,52,
Acute Lymphocytic Leukemia	1.3	304	Acute Lymphocytic Leukemia		239
				1.0	
Chronic Lymphocytic Leukemia	5.3	1,162	Chronic Lymphocytic Leukemia Myeloid and Monocytic Leukemia	2.8	82
Myeloid and Monocytic Leukemia	6.5	1,419	5	4.4	1,183
Acute Myeloid Leukemia	4.4	956	Acute Myeloid Leukemia	3.0	814
Chronic Myeloid Leukemia	1.6	347	Chronic Myeloid Leukemia	1.0	270
Other Leukemia	1.2	239	Other Leukemia	0.8	225
Miscellaneous	19.5	4,258	Miscellaneous	12.9	3,742

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.

Table 2. Trends in Alabama Cancer Incidence, Selected Sites, 2008-2012

Females											
Breast		P-Value	e 0.270		Cervix		P-Valu	e 0.576			
	Rate/Trend	SE	Lower Cl	Upper Cl		Rate/Trend	SE	Lower CI	Upper CI		
Total PC	-2.1				Total PC	16.5					
Total APC	-0.7		-2.2	0.9	Total APC	1.8		-7.2	11.7		
2008 Rate	122.5	2.1	118.4	126.7	2008 Rate	8.1	0.6	7.0	9.3		
2009 Rate	120.2	2.1	116.2	124.4	2009 Rate	9.2	0.6	8.0	10.5		
2010 Rate	117.8	2.1	113.8	121.9	2010 Rate	7.8	0.6	6.7	9.0		
2011 Rate	117.2	2.0	113.3	121.3	2011 Rate	8.1 0.6		7.0	9.3		
2012 Rate	119.9	2.1	115.9	124.0	2012 Rate	9.4	0.6	8.2	10.7		
Males					Males and	Females					
Prostate		P-Value	e 0.043		All Sites P-Value 0.001						
	Rate/Trend	SE	Lower Cl	Upper Cl		Rate/Trend	SE	Lower CI	Upper Cl		
Total PC	-20.4				Total PC	-7.0					
Total APC	-5.1*		-9.6	-0.3	Total APC	-1.9*		-2.2	-1.5		
2008 Rate	156.7	2.6	151.6	161.9	2008 Rate	484.4	3.1	478.4	490.5		
2009 Rate	156.9	2.6	151.9	162.1	2009 Rate	476.2	3.0	470.3	482.2		
2010 Rate	149.5	2.5	144.6	154.4	2010 Rate	465.4	3.0	459.6	471.3		
2011 Rate	145.2	2.4	140.5	150.1	2011 Rate	455.9	2.9	450.2	461.7		
2012 Rate	124.7	2.2	120.4	129.2	2012 Rate	450.6	2.9	445.0	456.3		

Males and Females

	P-Value	e 0.053		Lung		P-Valu	e 0.001	
Rate/Trend	SE	Lower CI	Upper Cl		Rate/Trend	SE	Lower CI	Upper CI
-13.5				Total PC	-10.9			
-3.9		-7.8	0.1	Total APC	-2.8*		-3.3	-2.3
50.5	1.0	48.6	52.5	2008 Rate	78.1	1.2	75.7	80.6
46.6	1.0	44.8	48.5	2009 Rate	75.3	1.2	73.0	77.7
44.0	0.9	42.3	45.9	2010 Rate	73.0	1.2	70.7	75.3
41.9	0.9	40.2	43.7	2011 Rate	71.5	1.1	69.3	73.8
43.7	0.9	41.9	45.5	2012 Rate	69.6	1.1	67.4	71.8
	-13.5 -3.9 50.5 46.6 44.0 41.9	Rate/Trend SE -13.5 - -3.9 - 50.5 1.0 46.6 1.0 44.0 0.9 41.9 0.9	-13.5 -7.8 -3.9 -7.8 50.5 1.0 46.6 1.0 44.0 0.9 41.9 0.9	Rate/TrendSELower ClUpper Cl-13.5-7.80.1-3.9-7.80.150.51.048.652.546.61.044.848.544.00.942.345.941.90.940.243.7	Rate/Trend SE Lower Cl Upper Cl -13.5 7.8 0.1 Total PC -3.9 -7.8 0.1 Total APC 50.5 1.0 48.6 52.5 2008 Rate 46.6 1.0 44.8 48.5 2009 Rate 44.0 0.9 42.3 45.9 2010 Rate 41.9 0.9 40.2 43.7 2011 Rate	Rate/Trend SE Lower Cl Upper Cl Total PC -10.9 -13.5 -7.8 0.1 Total APC -2.8* 50.5 1.0 48.6 52.5 2008 Rate 78.1 46.6 1.0 44.8 48.5 2009 Rate 75.3 44.0 0.9 42.3 45.9 2010 Rate 73.0 41.9 0.9 40.2 43.7 2011 Rate 71.5	Rate/Trend SE Lower Cl Upper Cl Rate/Trend SE -13.5	Rate/Trend SE Lower CI Upper CI Rate/Trend SE Lower CI -13.5

Males and Females

Melanoma		P-Value	e 0.859		Oral		P-Value	e 0.955	
	Rate/Trend	SE	Lower CI	Upper Cl		Rate/Trend	SE	Lower CI	Upper CI
Total PC	5.9				Total PC	0.3			
Total APC	0.3		-4.0	-4.0 4.7		-0.1		-3.2	3.2
2008 Rate	20.9	0.6	19.6	22.2	2008 Rate	13.2	0.5	12.2	14.2
2009 Rate	22.4	0.7	21.2	23.8	2009 Rate	12.7	0.5	11.7	13.7
2010 Rate	21.6	0.7	20.3	22.9	2010 Rate	13.2	0.5	12.3	14.3
2011 Rate	20.5	0.6	19.3	21.8	2011 Rate	12.5	0.5	11.5	13.5
2012 Rate	22.1	0.7	20.8	23.4	2012 Rate	13.2	0.5	12.3	14.2

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 APC is significantly different from zero (p<0.05).

-		Sites		ing		rectal		ral		noma
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Cour
labama	462.9	239,280	74.5	39,003	47.7	24,514	12.8	6,719	19.4	9,80
utauga	463.8	2,400	79.7	407	54.8	278	10.9	60	24.0	12
ldwin	452.8	9,890	67.2	1,517	42.4	921	11.7	258	26.4	54
irbour	465.7	1,468	78.1	247	47.8	150	16.6	52	11.4	34
bb	477.5	1,149	85.3	210	54.5	128	13.6	34	16.3	3
ount	434.1	2,781	77.5	512	45.9	290	11.1	71	24.1	15
ullock	475.0	582	66.6	83	71.0	88	17.3	21	^	15
utler	439.8	1,129	70.3	188	49.4	129	11.7	32	15.9	4
alhoun	468.0	6,220	88.0	1,199	51.3	676	16.2	214	18.7	24.
nambers	496.4	2,172	80.5	358	48.8	219	16.6	76	15.9	6
nerokee	437.3	1,510	80.0	288	39.4	137	11.9	44	12.4	4
hilton	447.2	2,105	80.8	392	37.5	175	13.3	64	23.8	11
noctaw	403.9	760	61.3	121	45.6	86	7.5	15	8.3	1
larke	465.0	1,442	69.4	222	61.9	192	13.1	40	22.9	6
lay	500.2	900	91.9	170	48.7	91	12.2	21	23.9	3
leburne	433.0	757	71.8	129	55.0	98	16.7	29	16.3	2
offee	427.5	2,360	73.6	418	35.9	197	12.2	66	16.1	8
olbert	425.4	2,965	74.4	535	49.8	354	12.2	86	21.7	14
	479.5		74.4	128	49.8 61.1	107	12.2	34	17.2	
onecuh		821					19.0	34		2
oosa	442.9	667	79.3	125	44.7	66			16.8	2
ovington	436.2	2,200	77.7	398	49.2	253	12.5	63	17.0	8
renshaw	386.6	666	53.7	97	47.0	82	14.4	25	19.1	3.
ullman	428.7	4,085	73.8	733	42.9	411	15.0	145	28.5	25
ale	457.7	2,464	82.1	449	39.4	212	18.3	100	18.2	9
allas	479.0	2,361	76.4	382	61.7	301	12.4	61	12.6	5
eKalb	414.5	3,199	68.6	540	41.7	318	12.6	97	17.0	12
more	477.7	3,726	84.9	653	49.1	373	14.7	117	24.7	19
cambia	470.4	2,080	84.8	384	50.7	224	13.3	61	14.4	6
owah	469.0	5,980	81.2	1,066	47.1	604	14.5	184	19.7	23
	453.0	1,032	76.5	183	50.4	115	13.8	32	16.4	3
iyette										
anklin	434.6	1,587	82.3	313	47.5	176	11.5	41	19.1	6
eneva	491.9	1,705	90.5	324	43.9	152	20.2	71	30.1	9
reene	460.4	528	70.1	82	59.6	70	^	^	^	
ale	462.8	857	64.9	122	43.4	80	13.0	24	11.7	2
enry	497.6	1,118	68.3	157	50.9	113	14.6	32	18.3	4
ouston	487.6	5,369	73.8	832	48.6	532	15.8	177	20.5	22
ickson	443.1	2,908	76.9	528	50.1	322	12.1	80	19.8	12
efferson	482.4	34,346	69.9	4,979	48.5	3,473	12.4	889	17.0	1,19
amar	474.3	944	76.9	160	52.7	107	15.2	31	20.6	3
auderdale	452.5	5,121	74.9	880	47.4	534	11.2	126	26.9	29
	432.5		90.9		57.9	224				8
awrence		1,931		365			12.8	52	21.0	
ee .	409.2	4,411	56.6	590	40.4	430	11.3	123	14.4	16
mestone	456.2	3,728	77.5	634	43.0	353	10.0	85	18.4	14
owndes	497.6	657	70.7	97	67.6	88	^	^	^	
lacon	418.5	1,026	57.9	146	47.6	115	15.7	40	^	
ladison	441.0	14,463	65.4	2,126	43.8	1,411	11.5	389	17.7	57
arengo	449.7	1,172	62.5	170	53.1	139	10.7	27	11.7	2
larion	437.7	1,783	78.3	334	48.7	198	12.9	55	18.3	7
larshall	455.1	4,674	86.4	913	45.0	458	15.2	157	23.8	23
lobile	482.2	20,687	80.2	3,448	52.0	2,213	12.7	552	16.3	68
onroe	425.9	1,167	61.7	176	54.9	150	9.3	24	14.4	3
lontgomery	433.6	9,798	65.0	1,464	49.8	1,121	11.3	262	16.8	37
5 5	501.4	6,573	82.1	1,097	49.8	616	13.7	183	23.6	29
lorgan						64	13./	183	23.6 ^	29
erry	484.4	619	72.1	96	49.3					
ckens	437.0	1,103	70.5	189	43.8	111	10.4	26	13.1	3
ke	439.8	1,412	63.5	210	40.3	131	16.4	53	23.9	7
andolph	427.3	1,224	64.7	192	46.7	135	10.2	28	15.8	4
ussell	451.9	2,476	71.3	397	51.1	274	14.6	82	14.4	7
. Clair	457.7	3,884	87.1	745	41.5	343	13.2	115	23.2	19
nelby	465.5	8,089	69.0	1,125	41.1	701	11.5	205	26.1	46
umter	434.7	684	64.4	103	44.9	73	12.7	19	^	
alladega	467.4	4,377	78.7	752	51.2	478	12.6	120	18.0	16
illapoosa	452.4	2,407	72.6	402	44.4	237	12.0	62	17.4	9
iscaloosa	481.2	8,284	75.6	1,291	49.7	848	11.1	194	16.5	28
alker	492.1	4,171	95.2	843	44.1	373	15.6	132	19.6	14
ashington	468.7	943	77.2	157	45.8	94	12.2	24	15.7	2
ilcox	492.1	670	65.1	92	69.3	95	14.4	20	^	

		Sites		ng		rectal		state		ral		noma
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	564.5	129,287	102.4	23,326	57.4	12,970	151.7	35,893	19.9	4,735	26.0	5,819
lutauga	533.5	1,233	110.3	240	63.8	145	117.0	277	16.2	43	31.5	78
aldwin	531.9	5,483	82.5	865	49.3	501	148.2	1,600	16.8	176	33.1	326
arbour	579.7	815	122.2	164	48.1	66	189.3	272	21.0	32	22.0	28
ibb	573.8	630	110.7	125	64.3	71	136.5	149	17.8	23	21.8	23
lount	526.6	1,530	106.6	312	58.0	166	114.5	346	13.7	43	30.6	89
ullock	526.2	315	90.7	56	79.6	46	157.0	96	^	^	^	/
utler	547.5	613	112.9	127	59.9	65	150.3	176	18.9	22	21.9	23
Calhoun	597.5	3,422	124.1	709	65.0	365	141.2	835	26.2	155	23.8	136
Chambers												
	620.5	1,187	116.8	222	53.4	106	168.5	332	23.5	48	22.8	45
herokee	527.8	844	106.8	175	47.8	78	133.1	227	20.5	34	19.0	29
hilton	539.1	1,162	113.1	250	44.3	95	124.5	275	23.8	53	26.6	57
Choctaw	536.0	453	92.6	79	59.1	50	173.3	155	\wedge	^	Λ	/
Elarke	585.3	809	107.9	149	78.5	107	156.6	227	19.5	27	24.7	33
Elay	603.2	497	123.3	105	73.5	61	139.0	117	19.6	16	32.5	25
Cleburne	535.2	428	88.4	73	74.0	61	109.1	90	28.7	23	^	/
Coffee	532.2	1,321	98.7	247	42.3	103	161.2	413	17.3	43	20.5	53
Colbert	508.8	1,577	102.7	325	60.7	188	83.1	275	21.3	68	29.8	91
Conecuh	565.0	458	112.0	91	67.4	54	144.9	123	30.1	25	19.7	17
loosa	539.5	384	112.0	85	59.4	40	139.9	102	^	^	^	/
Covington	528.9	1,183	97.6	220	64.1	137	131.3	311	19.2	46	25.5	56
Crenshaw	468.1	359	71.5	59	77.1	56	120.5	95	20.8	16	22.7	17
Cullman	507.4	2,209	104.3	465	50.7	215	120.3	458	20.8	97	35.1	151
	507.4				53.9		153.7		28.3	73	29.0	
Dale		1,386	113.7	273		134		378				63
Dallas	589.8	1,244	106.4	229	71.3	144	198.3	427	19.2	43	15.8	31
DeKalb	511.9	1,775	94.2	325	44.1	156	148.3	519	19.0	69	22.5	75
Imore	571.6	2,040	120.8	421	66.1	220	118.6	451	22.3	83	32.0	120
scambia	602.9	1,193	132.8	261	59.4	118	152.1	307	18.8	41	17.4	35
towah	583.1	3,267	107.0	617	57.7	321	155.9	901	25.3	139	24.2	133
ayette	534.1	551	88.8	98	69.2	70	128.7	138	23.7	24	22.7	22
ranklin	507.9	836	109.5	185	57.2	96	92.5	157	20.6	33	25.2	39
Geneva	609.2	956	126.5	202	53.9	84	170.2	281	27.7	44	32.0	43
Greene	575.3	300	103.2	55	86.8	46	214.0	115	^	^	^	/
Hale	595.2	497	95.4	80	49.8	39	201.2	176	16.7	15	^	/
lenry	646.8	659	103.2	103	63.9	63	218.8	236	29.1	28	28.0	27
louston	603.1	2,904	99.1	482	60.6	282	177.3	885	25.7	126	28.3	132
ackson	528.1	1,575	107.5	340	52.5	155	106.9	330	20.1	61	26.5	73
efferson	594.9		98.8	2,903	58.4	1,752	173.3		19.4	608	20.5	716
		17,943						5,373				
amar	566.5	514	94.6	85	62.9	58	150.0	143	21.3	19	27.8	22
auderdale	551.9	2,776	107.3	545	57.1	285	128.4	670	18.6	93	35.1	173
awrence	621.8	1,108	124.3	228	73.3	126	146.3	265	20.8	39	28.3	52
.ee	474.2	2,259	70.9	328	46.5	221	150.5	713	19.0	91	18.1	90
imestone	568.0	2,110	105.5	383	50.7	193	153.7	585	15.2	62	25.0	89
owndes.	620.5	379	100.1	63	90.7	53	183.1	117	^	^	^	/
/lacon	518.0	549	79.6	88	61.4	62	190.5	201	26.2	31	^	/
/Jadison	507.2	7,448	83.4	1,189	53.0	756	132.2	2,029	15.7	252	23.6	340
/larengo	574.2	659	94.5	111	68.5	76	174.2	211	17.4	20	^	1
<i>N</i> arion	517.2	975	115.5	221	57.9	108	112.6	220	21.6	43	22.2	40
/arshall	553.0	2,526	116.6	535	54.5	242	115.9	549	22.5	110	30.6	133
Aobile	598.0	11,203	108.5	2,002	62.6	1,151	166.9	3,235	19.5	385	23.5	432
Nonroe	528.6	648	97.6	124	64.5	78	130.8	169	16.5	20	19.1	2
		4,922	90.8		57.0	537	140.6	1,374	17.5	180	24.6	229
Nontgomery	516.9			845								
/lorgan	617.3	3,641	108.3	630	58.7	342	175.4	1,071	22.0	135	28.8	169
erry	632.8	355	113.4	64	69.2	39	228.5	134	^	^	^	,
lickens	547.7	621	104.0	120	55.4	62	165.3	195	16.5	19	^	,
ike	540.0	774	93.7	137	46.2	65	158.9	238	30.5	44	29.5	4
andolph	511.6	664	85.4	112	68.1	89	131.0	178	^	^	16.4	22
ussell	568.3	1,315	103.1	241	60.2	133	155.4	364	27.4	66	21.3	4
t. Clair	557.4	2,155	114.7	435	47.3	182	122.3	506	20.4	84	32.6	12
helby	558.1	4,400	88.7	650	46.7	373	162.7	1,336	17.3	144	35.0	28
umter	582.4	386	120.2	78	51.7	34	209.1	143	^	Λ	>>.0 ^	20
alladega	574.0				63.6	268	149.9		18.7	81	24.9	9
5		2,412	111.2	472				643				
allapoosa	538.6	1,298	98.6	242	55.1	131	140.7	357	17.4	40	25.1	5
uscaloosa	585.5	4,429	108.5	794	59.5	449	164.0	1,268	18.0	141	22.3	16
Valker	603.7	2,284	128.0	498	52.4	195	134.2	537	23.9	90	23.3	8
Vashington	597.7	558	120.0	109	43.8	44	179.3	175	22.0	19	19.3	1
Vilcox	625.8	372	112.3	64	92.4	52	185.2	118	^	^	^	
Vinston	527.7	766	125.5	188	58.8	81	100.0	148	22.4	36	30.2	4

		Sites	Lu	ng	Colo	rectal	Bre	east		rvix	0	ral	Mela	noma
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	391.1	109,993	53.9	15,677	40.1	11,544	117.4	32,687	8.5	2,101	7.0	1,984	14.9	3,982
Autauga	415.8	1,167	58.9	167	48.0	133	131.3	374	11.2	30	5.9	17	18.0	49
Baldwin	387.1	4,407	54.2	652	36.2	420	118.0	1,339	6.6	60	7.0	82	20.9	220
Barbour	397.1	653	48.6	83	48.1	84	133.5	211	^	^	12.5	20	^	^
Bibb	421.8	519	65.7	85	46.2	57	120.0	146	Λ	^	\wedge	^	13.2	15
Blount	366.8	1,251	56.2	200	36.0	124	105.6	362	10.9	30	8.4	28	18.5	64
Bullock	445.0	267	42.6	200	62.7	42	151.6	83	^	∧	۸		Λ	۰ ۸
Butler	368.1	516	40.7	61	42.3	64	120.4	162	16.8	19	^	^	11.8	17
Calhoun	381.8	2,798	63.9	490	41.4	311	103.3	745	8.5	54	8.1	59	15.4	107
										30		28	10.0	
Chambers	409.2	985	55.1	136	43.7	113	104.9	242	15.6		10.0 ^	28	10.0	24
Cherokee	373.2	666	59.3	113	32.5	59	110.1	192	10.2	15				^
Chilton	380.3	943	54.3	142	31.7	80	115.6	284	9.4	20	^	^	22.2	54
Choctaw	305.5	307	38.1	42	33.8	36	105.9	101	^	^	^	^	Λ	^
Clarke	374.3	633	39.0	73	49.3	85	119.9	199	^	^	^	^	22.8	33
Clay	426.4	403	67.0	65	28.8	30	137.7	129	^	^	^	^	^	^
Cleburne	362.4	329	59.8	56	37.3	37	86.4	78	^	^	^	^	^	^
Coffee	352.1	1,039	55.3	171	31.2	94	105.7	308	7.4	17	7.8	23	12.8	34
Colbert	367.9	1,388	53.2	210	41.5	166	114.8	423	6.6	21	4.9	18	16.1	54
Conecuh	413.7	363	39.2	37	55.8	53	141.0	120	^	^	^	^	^	^
Coosa	365.6	283	47.5	40	33.7	26	97.7	75	^	^	^	~	Λ	^
Covington	372.4	1,017	64.6	178	40.2	116	96.4	266	8.2	18	6.4	17	10.8	28
Crenshaw	333.8	307	39.2	38	26.6	26	96.4	85	0.2	10 	0.4	Π/ Λ	16.2	15
								522	9.2		8.8			
Cullman	373.6	1,876	49.2	268	37.2	196	105.1			39		48	23.8	108
Dale	371.6	1,078	57.9	176	27.2	78	112.4	324	5.8	15	9.1	27	11.1	31
Dallas	403.0	1,117	53.9	153	56.1	157	120.3	330	9.5	24	6.4	18	10.5	27
DeKalb	345.8	1,424	50.0	215	39.1	162	95.7	393	7.8	28	7.2	28	13.7	51
Elmore	405.7	1,686	56.0	232	37.1	153	127.2	541	10.9	44	8.1	34	18.8	78
Escambia	381.6	887	50.4	123	43.7	106	109.6	251	^	^	8.1	20	12.7	26
Etowah	390.4	2,713	61.4	449	39.1	283	107.6	741	10.0	54	6.2	45	17.0	106
ayette	394.6	481	64.9	85	35.4	45	127.0	154	^	^	\wedge	^	^	^
ránklin	383.5	751	62.2	128	40.1	80	109.4	215	Λ	^	\wedge	^	14.6	28
Geneva	404.8	749	62.7	122	35.7	68	113.2	208	Λ	^	14.0	27	30.4	52
Greene	368.8	228	45.1	27	37.4	24	126.7	76	^	~	~	^	^	~
Hale	363.1	360	40.8	42	38.4	41	115.5	109	^	^	Λ	^	^	^
Henry	383.2	459	43.6	54	40.2	50	121.6	141	^	^	^	^	^	^
Houston	408.9	2,465	55.3	350	40.2	250	116.3	689	10.9	56	8.4	51	15.4	89
Jackson	384.2	1,333	51.3	188	47.6	167	112.6	385	7.4	23	5.6	19	14.8	47
lefferson	406.9	16,403	50.3	2,076	41.1	1,721	128.6	5,080	8.1	289	6.9	281	12.3	477
Lamar	406.3	430	65.8	75	46.2	49	116.7	122	^	^	^	^	15.6	15
Lauderdale	383.7	2,345	52.0	335	39.2	249	102.8	607	6.7	37	5.4	33	21.8	121
Lawrence	392.7	823	63.5	137	46.6	98	103.2	216	^	^	^	^	15.1	30
Lee	366.1	2,152	45.5	262	36.0	209	110.9	657	8.1	48	5.3	32	12.4	77
Limestone	376.0	1,618	56.6	251	36.7	160	112.8	491	9.4	37	5.3	23	14.2	58
Lowndes	393.6	278	46.9	34	47.2	35	120.3	82	^	^	^	^	^	^
Macon	349.1	477	41.8	58	37.9	53	99.5	135	15.4	19	\wedge	^	^	~
Madison	394.7	7,015	52.2	937	36.9	655	124.2	2,233	6.3	103	7.8	137	13.6	236
Varengo	358.9	513	37.9	59	41.0	63	114.8	155	^	^	^	^	10.7	15
Marion	380.4	808	47.9	113	42.0	90	118.2	245	12.8	19	^	~	15.3	31
Marshall	390.4	2,148	65.3	378	37.6	216	94.3	517	8.4	37	8.7	47	20.0	102
Mobile	400.1	9,484	59.7	1,446	43.9	1,062	122.2	2,880	7.4	157	7.0	167	11.3 ^	252
Monroe	349.7	519	32.8	52	47.9	72	115.6	170						
Montgomery	380.8	4,876	47.9	619	44.3	584	124.1	1,567	9.8	115	6.4	82	11.5	147
Morgan	414.8	2,932	63.6	467	38.4	274	115.7	819	10.9	68	6.6	48	19.9	130
Perry	374.1	264	42.5	32	33.0	25	125.9	84	^	^	^	^	Λ	^
Pickens	355.3	482	45.6	69	34.7	49	128.9	165	^	^	^	^	14.4	18
Pike	367.2	638	40.6	73	35.7	66	103.0	173	10.0	15	^	^	20.0	33
Randolph	369.3	560	48.5	80	29.2	46	109.4	164	^	^	^	^	15.3	21
Russell	380.4	1,161	49.3	156	45.5	141	110.5	333	9.3	25	5.1	16	10.1	28
St. Clair	384.1	1,729	66.5	310	35.8	161	101.0	457	9.9	40	6.9	31	16.1	68
Shelby	393.1	3,689	53.6	475	36.3	328	127.7	1,240	5.7	57	6.5	61	18.8	181
, , , , , , , , , , , , , , , , , , ,					36.3 39.9	328			5.7	رد ۸	0.0 ^	01	18.8	101
Sumter	332.1	298	27.5	25			93.3	83						
alladega	392.4	1,965	53.5	280	40.9	210	116.1	576	11.3	48	7.7	39	13.2	62
allapoosa	391.5	1,109	53.0	160	35.4	106	109.6	305	15.9	37	7.3	22	12.1	33
uscaloosa	407.5	3,855	51.6	497	42.2	399	128.6	1,209	7.2	64	5.6	53	12.6	120
Walker	415.9	1,887	71.5	345	38.2	178	100.7	459	11.8	42	8.8	42	18.0	67
Nashington	363.4	385	43.7	48	46.9	50	133.1	141	^	^	^	^	^	^
Vilcox	399.1	298	34.2	28	53.6	43	101.5	70	^	^	^	^	^	^
	385.0	637	62.8	111	39.6	67	109.1	180	^	^	8.9	15	20.1	

		All S	ites			Lu	ng			Color	ectal			0	ral			Melar	noma	
	W	hite	Bla	ack	Wł	nite	Bla	ack	Wh	nite	Bla	ack	W	nite	Bla	ack	Wł	nite	Bla	ack
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	460.4	185,486	465.9	50,232	77.1	31,920	64.9	6,867	45.5	18,338	56.2	5,920	13.4	5,429	10.4	1,198	24.9	9,624	0.9	94
Autauga Baldwin	449.0 449.9	1,945 9,072	528.1 452.0	411 645	81.6 68.0	352 1,427	71.8 56.0	53 76	51.6 40.9	220 824	72.4 63.5	53 87	10.9 11.8	49 240	^	~	28.8 28.5	126 541	^	
Barbour	449.9	9,072	432.0	517	85.3	1,427	63.1	76	40.9	89	51.0	59	19.1	37	11.8	15	18.8	33	~	
Bibb	480.1	953	468.7	190	85.9	178	78.0	32	56.9	110	48.6	18	15.5	32	^	^	20.4	38	~	~
Blount	431.2	2,708	520.5	41	78.3	508	^	^	46.3	286	^	^	10.9	68	~	^	24.3	151	~	^
Bullock	519.6	215	446.2	361	95.5	42	50.2	41	70.0	28	72.7	60	^	^	^	^	^	^	^	^
Butler	438.3	733	440.5	388	75.0	133	61.6	55	45.7	77	56.3	50	12.6	23	^	^	25.2	39	^	^
Calhoun	472.5	5,269	452.1	895	92.1	1,067	65.2	127	50.9	565	53.4	101	16.9	183	13.7	28	22.3	240	^	^
Chambers	514.5	1,525	450.1	618	91.7	278	54.9	77	47.7	145	49.6	69	19.2	61	^	^	22.9	65	^	^
Cherokee	431.6	1,417	501.9	76	80.5	276	^	^	40.6	134	^	^	12.2	43	^	∧ ∧	12.8	40	^	∧ ∧
Chilton Choctaw	437.1 407.1	1,873 475	533.9 391.2	211 280	80.2 61.6	355 78	94.8 57.2	37 42	38.1 43.5	162 50	52.0	36	13.5 ^	58		~	24.9 13.3	105 17	~	
Clarke	407.1	913	475.4	516	71.5	154	63.1	68	43.5 53.6	110	75.2	81	12.4	26	~	~	36.7	64	^	
Clay	500.5	787	525.2	109	93.7	154	91.3	17	49.1	81	∧ 5.2	~	12.0	18	~	~	27.8	39	~	~
Cleburne	430.1	720	528.7	33	71.1	122	^	~	55.7	95	^	~	16.4	27	~	~	17.1	27	~	~
Coffee	428.4	1,973	427.9	343	74.1	355	74.7	59	33.6	154	44.9	36	12.2	55	^	^	19.6	87	^	^
Colbert	428.1	2,548	406.0	400	76.7	473	60.5	60	46.1	281	71.4	72	12.3	73	~	^	25.4	144	^	^
Conecuh	466.4	493	495.5	321	77.0	87	58.5	41	56.9	65	64.3	42	27.3	28	^	^	27.4	27	Λ	^
Coosa	461.6	502	382.1	158	85.8	100	58.2	25	42.9	47	43.8	18	^	^	^	^	24.0	22	^	^
Covington	435.9	1,981	433.2	200	77.8	359	78.6	36	48.5	225	56.2	26	12.6	57	^	^	18.9	84	^	^
Crenshaw	398.0	528	340.5	129	57.4	81	^	^	49.6	66	38.2	15	15.5	21	^	^	25.0	32	^	
Cullman	427.8	4,006	405.2	32	73.6	719			43.2	406			15.0	142			28.8	257	~	
Dale Dallas	460.1 509.0	2,055 1,089	462.3 450.6	368 1,245	86.4 89.5	396 200	58.6 65.3	48 182	39.0 52.7	174 115	43.6 68.2	36 185	18.6 16.2	84 35	9.5	26	22.1 28.7	94 52	~	
DeKalb	413.6	3,100	370.2	45	69.4	532	0J.J ^	102	41.7	309	00.2	~	13.0	97	5.5	~ ~	17.6	126	~	~
Elmore	475.2	3,157	473.7	521	83.8	556	92.2	95	49.4	322	48.7	50	15.2	104	~	^	28.7	194	^	^
Escambia	484.2	1,549	453.3	488	90.1	299	70.8	78	47.1	151	63.1	67	16.1	53	~	^	20.1	59	~	~
Etowah	463.8	5,199	490.8	697	83.1	968	70.1	96	46.0	523	51.5	73	14.3	161	15.0	22	22.4	235	^	^
Fayette	448.5	904	445.6	111	78.0	166	67.0	17	48.4	97	67.0	18	14.1	29	^	^	18.6	35	^	^
Franklin	434.9	1,519	477.8	62	84.1	307	^	^	47.1	167	^	^	11.2	38	^	^	20.1	67	^	^
Geneva	498.7	1,574	429.2	121	93.8	306	56.7	17	44.7	141	^	^	19.9	64	^	^	33.3	95	^	^
Greene	489.5	137	453.9	385	106.6	34	56.6	48	^	^	65.8	56	^	^	<u>^</u>	^	^	^	^	
Hale	474.6	432 835	445.1	418	74.7	69 130	55.1	53 26	49.1	46	36.3	34	15.0	^	^	^	23.1	19	^	
Henry Houston	507.1 484.4	4,271	457.0 506.6	268 1,049	76.3 75.1	130 689	44.7 70.0	142	50.2 45.4	80 401	56.0 63.6	33 128	15.8 17.2	26 154	8.7	20	25.0 25.8	41 218	~	~
Jackson	444.4	2,777	403.8	88	78.4	514	×	14Z	49.9	305	05.0 ^	120 A	17.2	76	0.7	 	20.7	119	^	^
Jefferson	474.1	21,816	494.3	12,099	71.7	3,383	66.1	1,570	44.5	2,087	56.7	1,355	13.3	606	10.5	274	26.2	1163	0.8	19
Lamar	470.6	851	458.9	84	78.0	147	^	^	56.2	103	^	~	15.8	29	~	^	22.9	37	^	^
Lauderdale	446.6	4,653	520.7	435	74.7	810	77.3	65	45.0	470	76.3	62	11.1	113	~	^	29.4	293	^	^
Lawrence	507.6	1,703	480.0	217	98.2	338	55.9	26	58.2	193	69.5	31	13.7	47	^	^	24.9	81	^	^
Lee	399.6	3,282	440.4	1,038	58.3	468	52.5	117	38.7	313	45.2	108	11.7	94	9.9	27	18.4	160	^	^
Limestone	460.1	3,318	408.7	354	80.8	592	55.6	41	43.5	315	43.9	38	10.2	76	^	^	20.8	146	^	^
Lowndes Macon	560.1	258 213	463.1 408.7	394 806	101.2	52 34	50.4	44	64.4	31 19	68.4	57 96	^	^	14.8	^	^	^	^	^
Madison	458.3 435.1	11,450	408.7	2,531	72.0 66.0	34 1,760	55.4 64.8	112 338	41.0 41.7	1,087	49.5 56.2	297	12.0	322	9.0	30 58	22.2	569	~	
Marengo	435.1	631	450.5	527	65.4	1,700	57.4	67	46.1	65	61.3	74	12.0	522	13.3	16	21.9	28	^	∧
Marion	434.5	1,710	512.4	61	78.6	325	^	^	48.3	189	۸ ۸	^4	13.2	54	^	^	18.6	69	^	^
Marshall	451.7	4,530	488.7	60	86.7	897	^	^	44.9	446	Λ	^	15.4	155	^	^	24.2	232	^	^
Mobile	483.4	14,401	485.3	5,971	83.4	2,527	72.5	884	50.1	1,494	59.0	704	13.6	409	10.6	136	23.2	670	^	^
Monroe	418.8	742	446.0	417	64.7	123	56.8	53	53.5	97	57.0	51	^	~	~	^	23.5	35	٨	^
Montgomery	443.4	5,759	417.7	3,880	66.1	898	62.6	556	47.1	628	53.0	486	12.3	159	9.4	97	29.5	365	^	^
Morgan	501.5	5,965	512.1	542	83.5	1,020	76.9	74	46.8	550	59.0	59	14.2	172	^	^	26.1	296	^	^
Perry Bickons	431.5	230	509.8	380	69.3	43	69.0	53	41.2	24	53.5	39	^	16	^	^	^ 20.6	^	^	^
Pickens Pike	425.0 447.7	695 980	463.3 421.9	401 410	68.2 65.1	124 152	74.7 60.3	64 57	44.0 35.9	73 79	43.8 49.8	38 49	9.8 18.6	16 41		^	20.6 35.8	29 73	^	
Randolph	447.7	1,006	421.9	207	66.8	152	52.6	23	47.8	117	49.0	18	10.0	23	~	~	17.3	39	Λ	∧
Russell	461.0	1,587	421.3	839	80.1	286	55.0	109	46.9	160	54.7	108	16.1	56	11.2	24	21.3	70	Λ	^
St. Clair	456.0	3,597	474.7	251	87.6	701	84.8	42	42.3	326	34.9	17	13.7	111	^	^	24.8	188	^	^
Shelby	461.8	7,337	487.7	589	69.8	1,051	62.9	67	40.0	627	52.6	57	11.4	184	10.1	16	28.6	462	^	^
Sumter	468.9	222	421.6	456	77.5	39	59.6	64	30.0	15	52.7	58	^	^	~	^	~	^	Λ	^
Talladega	469.7	3,294	452.7	1,028	84.5	615	61.5	137	51.1	359	51.9	116	13.2	94	10.9	26	24.2	159	٨	^
Tallapoosa	448.2	1,898	469.8	495	74.6	330	68.6	72	43.2	186	47.2	49	11.2	45	16.1	17	22.1	89	Λ	^
Tuscaloosa	475.7	6,117	489.6	2,054	77.6	1,007	69.5	278	46.1	585	61.3	256	11.3	148	9.7	43	21.9	282	^	^
	1	2 057	476.2	184	95.1	804	99.3	37	43.5	348	56.8	23	15.7	126	~	~	20.8	149	~	~
Walker	492.4	3,957																		
Walker Washington Wilcox	492.4 503.5 500.6	3,957 728 254	476.2 456.2 484.2	207	90.3 53.7	133 31	51.0 71.5	24	49.4	73	39.7 69.2	18 57	14.3	20	^	^	20.0	27	^	^

	1.8.4	All S		a al c	14/1	Lu		a alı	14/1	Color		- alc
		nite		ack		nite		ack		nite		ack
Alabama	Rate	Count 100,155	Rate	Count	Rate	Count	Rate 104.5	Count	Rate	Count	Rate	Coun
	549.3		611.9	26,968	102.2	18,749		4,467	55.0	9,901	68.3	2,92
utauga	502.6	988	704.1	226	107.8	200	134.9	40	61.4	119	74.3	2
aldwin	521.3	5,004	607.4	368	82.0	804	87.6	51	48.0	454	75.0	44
larbour	582.5	526	578.1	279	120.7	106	120.4	57	47.2	42	50.5	23
Bibb	562.7	507	629.2	118	106.2	99	128.2	26	69.0	63	^	/
lount	522.1	1,485	716.8	22	107.7	309	^	^	58.2	163	^	
Bullock	536.0	119	507.6	191	124.0	29	68.8	27	74.8	16	85.8	30
utler	522.1	390	585.2	217	112.0	85	113.2	42	60.7	43	57.4	2
alhoun	597.6	2,914	613.0	482	129.3	636	92.1	72	64.4	311	67.6	4
hambers	622.7	836	611.7	338	121.9	166	103.1	55	56.9	78	43.7	2
Therokee	523.3	798	597.4	35	107.5		105.1	~	49.5	77	45.7	2
						168					Λ 	
hilton	524.0	1,032	661.2	115	114.4	232	107.8	18	44.4	87		
Choctaw	548.8	298	508.0	151	91.2	52	93.1	27	51.5	28	79.0	2
Ilarke	529.4	498	670.7	302	100.4	95	120.1	54	61.8	57	107.5	4
lay	605.0	437	580.7	56	124.1	94	^	^	78.9	58	^	
leburne	535.0	409	596.0	17	87.5	69	^	^	74.9	59	^	
Coffee	520.4	1,100	605.5	200	95.7	206	120.4	39	38.9	80	64.1	2
Colbert	501.3	1,342	535.8	221	101.2	278	110.5	45	53.8	144	105.1	43
Conecuh	530.3	281	619.9	172	101.2	55	125.2	36	68.7	37	61.5	1
	538.6		523.9			65	98.9			27	01.5 A	
Coosa		281		98	114.3			20	54.0			
Covington	526.1	1,068	575.2	104	97.2	200	112.2	19	62.1	120	88.4	1
Irenshaw	484.1	285	415.6	67	74.2	48	^	^	80.8	44	^	
Cullman	503.4	2,155	632.9	25	103.4	453	^	^	50.7	211	^	
Dale	562.1	1,163	666.0	205	115.1	239	95.2	31	51.8	110	68.0	2
Dallas	570.1	565	594.6	657	105.3	106	107.0	123	57.6	55	83.9	8
DeKalb	508.3	1,713	405.6	23	95.5	321	^	^	43.7	150	^	
Imore	554.6	1,714	657.0	293	114.7	350	166.7	70	67.3	195	58.0	2
scambia	620.6	895	575.9	269	137.7	198	119.1	57	54.1	78	80.1	3
towah	566.3	2,835	682.8	372	107.0	555	117.6	61	56.3	281	65.6	3
							۲۱۲.0 ۸	01 			05.0 A	
ayette	517.6	479	568.4	58	90.7	89			66.6	61		
ranklin	504.4	796	659.2	37	110.1	180	^	^	57.2	92	٨	,
Geneva	612.6	881	560.5	69	128.3	188	^	^	55.5	79	^	
Greene	593.0	81	561.8	213	162.9	23	81.4	32	^	^	94.0	3
Hale	560.3	246	615.1	245	96.7	42	93.7	38	44.4	19	53.4	2
lenry	624.5	481	682.6	166	107.6	83	88.2	19	69.0	51	^	
louston	589.3	2,308	657.9	558	99.4	398	101.5	83	58.2	219	71.0	6
ackson	526.2	1,502	505.4	44	108.6	329	^	∧	53.1	150	A	
efferson	565.2	11,340	647.1	6,331	94.4	1,887	108.9	1,002	53.9	1,079	68.1	654
amar	552.7	459	601.4	46	92.0	75	Λ	1,002	66.6	56	۸	,
auderdale	540.0	2,524	745.7	240	105.0	497	157.1	47	54.2	253	100.4	3
awrence	634.6	973	665.7	127	132.5	209	86.1	19	74.0	111	92.4	1
_ee	446.3	1,667	587.8	544	67.8	247	89.2	79	44.6	165	53.6	52
imestone	564.9	1,869	575.2	208	108.9	357	86.8	26	49.9	170	66.9	23
.owndes	680.4	160	596.9	215	151.4	38	65.3	25	66.1	16	107.1	3
/lacon	472.1	111	529.5	433	85.2	20	79.1	68	\wedge	^	61.9	4
Madison	492.2	5,898	551.1	1,296	83.3	988	89.8	190	50.7	593	69.0	14
/arengo	496.7	329	651.9	316	91.4	64	95.1	47	60.4	37	80.3	3
Marion	516.2	935	563.4	33	116.0	214	>).1 ^	/ 	56.8	102	×	
/arshall	546.1	2,435	687.2	33	117.5	528	~	~	50.8	233	~	
Aobile	585.4	7,854	640.3	3,179	108.3	1,437	109.6	545	61.7	821	68.1	32
Nonroe	502.2	409	593.0	235	92.5	79	109.9	45	62.1	51	68.4	2
Nontgomery	502.6	2,856	536.4	1,981	84.9	485	101.5	357	51.6	291	65.3	24
Лorgan	614.2	3,313	662.3	284	109.6	587	112.9	41	58.0	309	73.0	2
erry	533.2	134	691.2	213	120.1	34	97.0	30	57.5	15	72.9	2
Pickens	505.0	390	638.0	226	100.3	81	111.8	39	57.0	45	52.5	1
like	529.0	542	558.9	218	92.5	100	99.2	37	42.7	42	50.7	2
andolph	501.3	551	546.7	106	88.8	100	^	∧	71.0	80	^	
lussell	538.0	805	587.3	479	106.8	165	97.0	76	53.5	76	66.7	5
t. Clair	552.8	1,981	627.2	153	115.0	407	104.7	26	48.3	173	00.7 A	5
helby	552.8		641.8	320	87.8	598	104.7	50	46.1	340	52.0	2
		3,999										
umter	596.9	135	568.2	246	141.3	32	108.2	46	^	^	69.5	2
alladega	564.1	1,810	590.3	564	114.1	378	105.0	94	62.2	197	68.4	6
allapoosa	531.2	1,036	562.1	251	98.5	195	105.5	47	54.2	106	58.4	2
uscaloosa	561.3	3,263	652.1	1,092	107.0	609	115.1	181	56.2	324	74.2	12
Valker	601.2	2,163	601.0	97	126.4	473	154.7	23	51.7	181	^	
Vashington	633.0	433	615.2	123	139.4	92	84.5	17	53.2	39	^	
Vilcox	491.4	124	686.7	234	73.5	17	142.3	46	70.9	16	108.4	3
Vincox	522.8	751	000.7 A	234	124.0	184	142.5 A	40	59.3	81	100.4 A	C

	14/1	Pros ⁻ nite		ack	14/1	Oı nite		ack	\A/L	Melar nite	Bla	
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	129.3	24,562	229.5	10,137	20.5	3,836	16.8	842	32.2	5,739	0.9	39
Autauga	92.9	188	255.2	81	16.2	36	^	^	37.2	78	^	
Baldwin	137.9	1,395	244.6	143	17.3	167	^	^	35.5	324	^	~
Barbour	152.0	143	250.8	124	26.4	26	^	^	33.6	27	^	~
Bibb	112.7	143	245.3		20.4	20	^	^	27.4	23	^	^
	112.7		245.5 A	42	13.5	41	~			25 87	^	
Blount		327			13.5	41	Λ 	Λ Λ	30.6	۸ ۸	~	A
Bullock	92.5	21	187.1	70			~					
Butler	129.0	101	184.6	71	19.0	15		^	33.4	23	^	
Calhoun	126.3	637	234.9	187	26.6	131	26.9	22	27.6	134	^	^
Chambers	131.2	185	265.6	145	25.1	36	^	^	32.8	44	^	^
Cherokee	122.7	201	296.1	17	21.1	33	^	^	19.9	29	^	^
Chilton	113.5	231	236.7	41	24.0	48	^	^	28.3	55	^	^
Choctaw	154.2	91	197.4	61	^	^	^	^	^	^	^	^
Clarke	130.2	132	201.9	91	17.4	17	^	^	36.5	32	^	^
Clay	120.0	89	258.8	25	^	^	^	^	37.6	25	^	~
Cleburne	107.4	85	~	~	28.9	22	^	^	^	^	^	^
Coffee	145.4	318	247.7	83	17.1	36	^	^	24.2	53	Λ	^
Colbert	74.3	211	128.0	56	21.3	58	Λ	^	34.4	91	^	~
							~	~			~	
Conecuh	99.8	56	225.4	64	39.8	21			31.3	17		
Coosa	112.8	60	211.8	39	^	^	^	^	^	^	^	^
Covington	123.4	265	187.6	38	19.4	42	^	^	28.0	56	^	^
Crenshaw	104.8	63	176.7	29	^	^	^	^	29.1	17	^	^
Cullman	98.4	438	\wedge	^	22.6	95	^	^	35.5	150	^	^
Dale	134.4	289	281.8	78	28.9	63	^	^	33.9	63	^	^
Dallas	150.8	161	235.3	250	22.6	23	17.6	20	32.0	29	^	^
DeKalb	142.0	485	^	^	19.6	69	^	^	23.1	75	^	~
Imore	101.3	335	219.0	101	22.3	71	^	^	36.6	119	^	^
scambia	139.2	210	193.0	87	22.4	35	Λ	^	24.0	34	^	~
					25.0	122	27.5				^	~
towah	140.0	728	249.1	133			Z7.5 ^	16	27.0	132		
ayette	99.9	99	267.2	27	23.5	21		^	25.5	22	^	
ranklin	87.6	142	Λ	^	20.4	31	^	^	26.4	39	^	^
Geneva	162.7	246	255.7	32	25.8	38	^	^	34.9	43	^	^
Greene	132.7	21	232.7	90	^	^	^	^	^	^	^	^
Hale	140.8	68	250.5	103	^	^	^	^	^	^	^	^
Henry	169.7	140	336.9	86	29.6	22	^	^	36.6	27	^	^
Houston	151.2	622	281.1	239	28.1	111	^	^	34.5	130	^	~
lackson	99.0	296	^		20.5	59	^	^	27.4	72	^	^
lefferson	140.7	2,903	234.9	2,341	20.7	419	17.0	184	35.4	703	^	^
_amar	134.0	119	225.7	16	22.4	18	۸	^	30.6	22	^	~
					18.2		~	∧	37.6		^	~
_auderdale	119.0	580	269.1	85		83	~			172	~	
awrence	134.5	210	247.3	48	22.2	35		^	32.7	51		
Lee	121.8	454	266.4	238	19.2	69	16.8	20	22.4	88	^	^
imestone	141.1	482	220.8	82	15.4	56	^	^	28.2	89	^	^
owndes	144.0	38	206.3	77	^	^	^	^	^	^	^	^
Macon	142.1	33	201.1	164	^	^	24.7	22	^	^	^	^
Madison	112.2	1,417	194.2	464	16.1	208	12.6	38	28.6	338	^	^
Marengo	114.5	81	235.4	117	^	^	^	^	^	^	^	^
Marion	109.7	207	^	~	22.1	42	Λ	^	23.2	40	^	~
Marshall	111.2	515	\wedge	~	22.7	108	Λ	^	31.2	132	^	~
Vobile	140.8	1,981	239.9	1,188	20.1	281	19.0	101	32.0	423	^	
	91.8				20.1 ^	281	19.0		32.0 29.3		~	
Monroe		81	213.6	86						21	~	A
Montgomery	113.5	674	181.7	661	17.6	102	16.1	72	40.4	223		
Morgan	167.5	940	228.6	99	23.0	128	^	^	31.3	167	^	^
Perry	140.4	39	287.8	89	Λ	^	Λ	^	Λ	^	^	^
Pickens	114.7	95	266.5	96	^	^	^	^	^	^	^	^
Pike	133.2	145	214.3	84	33.9	35	Λ	^	40.8	40	^	^
Randolph	102.4	119	291.6	56	Λ	^	Λ	^	18.1	20	^	^
lussell	107.0	158	223.8	190	30.5	47	21.3	18	29.4	44	^	^
it. Clair	113.8	436	228.5	59	21.2	81	~	^	34.9	121	^	~
Shelby	153.6	1,163	256.3	133	17.3	133	Λ	^	38.1	284	^	~
					17.3	155	~	~	38.1 A	284 ^	~	
Sumter	188.4	45	213.4	93								
alladega	120.8	400	226.6	215	19.4	63	13.8	18	32.0	98	^	^
allapoosa	123.5	259	193.3	90	16.3	29	^	^	30.5	56	^	^
uscaloosa	135.2	811	239.1	400	18.0	107	17.2	33	28.6	166	^	^
Valker	127.6	486	200.9	34	24.4	87	^	^	24.6	82	^	^
Vashington	160.5	119	265.1	54	26.5	16	Λ	^	23.3	15	^	^
Vilcox	124.8	37	191.3	69	Λ	^	Λ	Λ	Δ	^	^	^
Vinston	95.8	140	۲ <u>9</u> 1.5 ۸	~	22.6	36	~	∧	30.5	40	^	A

			Sites			Lu				Color					ast	
		hite		ack	W	hite	Bla	ack		nite		ack		nite	Bla	ack
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
Alabama	397.2	85,331	371.5	23,264	58.2	13,171	38.8	2,400	37.9	8,437	48.2	2,991	115.9	24,649	119.6	7,574
Autauga	412.5	957	412.4	185	64.4	152	^	^	43.6	101	69.8	29	126.4	298	142.5	67
Baldwin	389.8	4,068	346.2	277	56.1	623	33.4	25	34.4	370	54.8	43	118.2	1,228	107.7	89
Barbour	425.5	411	356.5	238	62.1	64	27.5	19	45.8	47	52.6	36	134.8	126	129.3	84
Bibb	432.9	446	372.6	72	71.8	79	^	^	45.9	47	^	^	117.0	120	128.6	25
Blount	366.1	1,223	411.2	19	57.1	199	^	^	36.5	123	^	^	103.9	349	^	^
Bullock	537.5	96	408.2	170	\wedge	^	Λ	^	\wedge	^	63.7	30	171.4	24	149.1	59
Butler	390.7	343	336.6	171	49.9	48	Λ	^	35.4	34	54.4	29	122.6	104	115.5	57
Calhoun	388.3	2,355	354.4	413	67.0	431	47.9	55	40.7	254	45.8	53	100.2	600	114.0	134
Chambers	436.3	689	350.5	280	69.6	112	26.3	22	38.5	67	51.4	43	114.7	176	82.1	63
Cherokee	365.0	619	497.0	41	59.4	108	\wedge	^	33.2	57	\wedge	^	106.7	175	176.9	16
Chilton	374.5	841	440.9	96	51.8	123	85.6	19	32.6	75	Λ	Λ	112.6	251	139.0	30
Choctaw	293.2	177	316.5	129	38.1	26	34.2	15	34.7	22	^	~	96.3	57	113.4	44
Clarke	394.4	415	341.8	214	47.6	59	\wedge	~	48.4	53	51.3	32	121.0	125	115.0	72
Clay	428.0	350	472.2	53	70.7	59	\wedge	^	24.4	23	\wedge	~	140.3	115	Λ	^
Cleburne	357.4	311	499.6	16	59.2	53	\wedge	^	37.9	36	\wedge	~	88.2	76	^	^
Coffee	359.7	873	315.7	143	58.2	149	43.9	20	29.6	74	31.7	15	110.5	265	86.7	38
Colbert	378.1	1,206	321.7	179	58.3	195	26.5	15	40.3	137	48.6	29	113.2	354	125.5	69
Conecuh	417.2	212	412.2	149	56.1	32	20.5	\ \	46.9	28	48.0 65.6	25	123.1	61	123.3	57
Coosa	417.2	212	271.8	60	57.3	35	~	~	40.9 35.4	20	05.0	Z3 	99.3	52	95.1	22
Covington	403.0 373.7	913	353.3	80 96	57.3 64.7	35 159	59.8	17	35.4 40.9	105	~	~	99.3 96.2	238	100.2	22
2							59.8	17 			~	∧				
Crenshaw	347.2	243	294.8	62 ^	43.7	33	~		29.8	22	~		102.1	67 E12	84.3 ^	18
Cullman	375.0	1,851			49.6	266			37.6	195	~		105.1	513		
Dale	380.6	892	344.7	163	63.3	157	35.4	17	27.6	64			109.9	258	124.6	62
Dallas	466.8	524	362.0	588	76.8	94	36.9	59	49.2	60	60.0	96	136.6	148	109.8	182
DeKalb	347.2	1,387	348.9	22	50.3	211	^	^	39.6	159	^	^	96.0	382	^	^
Elmore	412.7	1,443	359.9	228	58.2	206	42.7	25	36.4	127	43.2	25	129.4	462	115.6	77
Escambia	392.4	654	377.3	219	57.0	101	35.2	21	41.4	73	50.4	30	98.6	165	138.1	79
Etowah	392.3	2,364	379.3	325	64.2	413	42.5	35	38.0	242	44.0	38	104.1	621	131.4	114
Fayette	397.1	425	382.9	53	66.5	77	Λ	^	32.2	36	\wedge	~	121.8	131	168.4	22
Franklin	387.0	723	347.8	25	64.5	127	\wedge	^	39.5	75	^	~	108.6	204	~	^
Geneva	414.9	693	329.5	52	67.3	118	Λ	^	35.8	62	Λ	^	113.2	187	141.4	21
Greene	409.0	56	366.8	172	\wedge	Λ	36.0	16	\wedge	^	42.4	20	131.4	16	129.8	60
Hale	403.7	186	328.0	173	55.3	27	27.5	15	52.9	27	\wedge	^	86.0	41	133.7	68
Henry	413.9	354	306.7	102	52.7	47	~	~	33.9	29	60.9	21	135.5	114	82.9	26
Houston	414.2	1,963	407.1	491	57.0	291	50.1	59	36.6	182	57.1	68	119.3	553	107.1	132
Jackson	387.6	1,275	362.7	44	53.1	185	∧	^	46.5	155	∧		114.5	371	Λ	152
Jefferson	413.5	10,476	398.0	5,768	56.0	1,496	39.6	568	37.2	1,008	48.9	701	128.2	3,150	128.3	1,886
	413.3	392	369.5	38	70.2	72	39.0	>00	50.1	47	40.9	/01	128.2	104	178.9	
Lamar																18
Lauderdale	381.3	2,129	397.0	195	53.0	313	35.4 ^	18 ^	37.2	217	61.2	30	101.1	546	117.0	56
Lawrence	414.7	730	357.9	90	69.9	129			46.2	82	58.4	16	105.2	184	125.4	32
Lee	369.7	1,615	354.6	494	50.8	221	28.8	38	34.2	148	40.9	56	110.4	485	108.8	155
Limestone	382.9	1,449	308.7	146	59.6	235	35.3	15	37.5	145	31.3	15	111.4	425	103.1	53
Lowndes	439.9	98	368.0	179	^	^	39.8	19	61.7	15	39.3	20	117.8	26	119.2	56
Macon	456.9	102	327.8	373	^	^	38.4	44	^	^	41.7	48	146.8	33	91.1	102
Madison	396.6	5,552	389.4	1,235	53.2	772	48.3	148	34.6	494	48.4	149	121.4	1,716	124.1	417
Marengo	391.4	302	320.0	211	44.2	39	31.3	20	33.4	28	48.3	35	131.5	99	90.5	56
Marion	374.8	775	530.1	28	48.6	111	^	^	42.2	87	^	^	115.4	234	^	^
Marshall	390.3	2,095	386.2	27	65.2	369	^	^	37.8	213	^	~	93.8	501	^	^
Mobile	409.1	6,547	386.2	2,792	65.0	1,090	47.4	339	40.4	673	53.8	384	122.3	1,938	121.1	887
Monroe	355.9	333	347.5	182	42.1	44	^	^	47.6	46	50.1	26	115.4	106	117.6	63
Montgomery	408.2	2,903	346.3	1,899	53.6	413	38.1	199	43.0	337	45.4	246	131.0	898	115.4	645
Morgan	417.1	2,652	416.0	258	65.0	433	55.9	33	37.2	241	50.9	30	115.5	735	121.2	80
Perry	343.3	96	394.1	167	~	^	52.7	23	^	~	37.0	16	114.6	27	136.5	57
Pickens	365.4	305	345.2	175	43.3	43	48.9	25	32.8	28	39.6	21	141.4	111	110.8	54
Pike	385.8	438	340.2	192	42.9	52	36.5	20	29.6	37	49.0	28	102.4	113	100.6	58
Randolph	362.4	455	401.1	192	42.9	68	∧	20 ^	29.0	37	49.0	 	102.4	129	135.8	34
Russell	421.4	782	310.9	360	49.7 61.2	121	28.3	33	29.2 43.2	84	48.2	55	102.5	217	96.2	113
											48.Z	>>				
St. Clair	385.1	1,616	356.2	98	67.3	294	64.3	16	36.4	153			97.5	413	132.4	38
Shelby	391.6	3,338	376.7	269	55.6	453	24.7	17	34.7	287	51.5	31	125.3	1,105	146.3	108
Sumter	375.2	87	327.3	210	^	^	28.3	18	^	^	43.9	29	98.9	26	88.9	57
Talladega	403.2	1,484	362.0	464	60.5	237	33.5	43	41.9	162	37.2	47	114.8	417	117.3	152
Tallapoosa	389.4	862	406.0	244	56.3	135	42.4	25	33.7	80	38.8	24	112.2	246	98.1	59
Tuscaloosa	414.9	2,854	387.3	962	55.6	398	40.5	97	37.9	261	53.5	132	127.2	866	132.3	334
Walker	419.1	1,794	390.6	87	72.3	331	^	^	38.0	167	^	^	99.8	429	122.8	28
Washington	395.8	295	333.1	84	52.7	41	^	^	45.5	34	^	~	143.1	107	136.7	34
Wilcox	523.9	130	354.2	168	^	Λ	Λ	Λ	65.8	21	44.9	22	102.4	24	100.6	46
Winston	383.2	627	∧	~	62.3	109	Λ	~	38.6	65	^	~	102.1	178	Λ	^

l		Cer					ral		Melanoma			
		nite		ack		nite		ack		nite		ack
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Coun
labama	8.1	1,422	10.2	635	7.3	1,593	5.5	356	19.8	3,885	0.9	55
utauga	10.9	23	^	^	^	^	^	^	22.0	48	^	^
aldwin	6.3	51	^	^	6.8	73	^	^	22.8	217	^	^
arbour	^	^	^	^	^	^	^	^	^	^	^	^
ibb	^	^	^	~	~	^	~	^	16.3	15	^	^
lount	10.4	28	^	^	8.1	27	~	^	18.9	64	^	^
ullock	10.4	0	^	^		/ 	^	^	10.5		^	^
	~		~	Λ Λ	~	~	~	~			~	~
utler									19.2	16		
alhoun	8.5	41	^	^	8.7	52	^	^	18.9	106	^	^
hambers	17.4	20	^	^	13.0	25	^	^	14.0	21	^	^
Cherokee	10.8	15	^	^	~	^	^	^	^	^	^	^
hilton	9.3	17	^	^	^	^	^	Λ	22.8	50	^	^
hoctaw	^	~	^	~	~	~	~	^	^	~	^	^
larke	^	~	^	~	~	~	^	~	39.9	32	Λ	^
	~		~		^	~		~				
lay				^			^		^	^	^	
leburne	^	^	^	^	^	^	^	^	^	^	^	^
offee	^	^	^	^	7.6	19	^	^	16.3	34	^	^
olbert	7.0	18	\wedge	^	4.7	15	^	^	19.0	53	^	^
Conecuh	~	~	^	^	^	~	~	~	^	~	^	^
loosa	Λ	~	^	~	~	~	Λ	~	^	~	^	^
		15	~	∧			~	∧ ∧			~	
ovington	7.8			Λ Λ	6.2	15			12.3	28		^
renshaw	^	^	^		^		^	^	21.3	15	^	
Cullman	8.8	37	Λ	^	8.8	47	^	^	24.1	107	^	^
Dale	^	^	^	^	8.6	21	^	^	14.2	31	^	^
Dallas	^	^	9.9	16	~	^	^	^	26.8	23	^	^
eKalb	7.7	26	^	^	7.4	28	~	^	14.3	51	^	^
Imore	8.7	28	^	^	9.2	33	^	^	22.0	75	^	^
	۸.7	~ ~	^	^			Λ	^			Λ	^
scambia					10.0	18			17.8	25		
towah	11.0	48	^	^	6.2	39	^	^	19.6	103	^	^
ayette	^	^	^	^	^	^	^	^	^	^	^	^
ranklin	^	^	^	^	~	^	^	^	15.3	28	^	^
Geneva	^	Λ	^	^	14.9	26	^	Λ	33.9	52	^	^
Greene	^	^	^	^	~	^	~	^	~		^	^
lale	^	~	^	^	~	~	~	~	~	~	^	^
	^	~	~	~	^	~	~	~	~	~	^	^
lenry												
louston	10.3	37	15.8	19	8.9	43	^	^	20.1	88	٨	^
ackson	7.5	22	^	^	5.3	17	^	^	15.7	47	^	^
efferson	7.3	147	9.6	139	7.2	187	5.9	90	20.2	460	^	^
amar	^	^	^	^	~	^	^	^	17.6	15	^	^
auderdale	6.8	34	^	~	5.6	30	~	^	24.3	121	^	~
awrence	~	^	^	^	5.0 ^	~	~	~	18.5	30	^	^
			Λ	∧			Λ	^			Λ	∧
ee	8.5	36			5.8	25			16.1	72		
imestone	9.9	33	^	^	5.4	20	^	^	16.0	57	Λ	^
owndes	^	^	^	^	^	^	^	^	^	^	^	^
/lacon	^	^	15.7	16	^	^	^	^	^	^	^	^
/ladison	6.2	73	8.1	25	8.1	114	6.0	20	17.7	231	^	^
/arengo	^	^	^	^	^	^	^	^	^	^	^	^
/arion	12.6	18	Λ	^	^	^	Λ	^	15.0	29	Λ	^
			~	~			~					
Aarshall	8.4	36			9.0	47		^	20.3	100	^	
/lobile	6.5	84	9.8	69	7.9	128	4.6	35	17.0	247	Λ	^
/lonroe	^	^	^	^	^	^	^	^	^	^	^	^
/lontgomery	8.9	47	11.1	65	7.9	57	4.3	25	21.5	142	^	^
/lorgan	9.7	52	^	^	6.6	44	^	^	22.4	129	^	^
erry	^	^	^	^	×	~	~	^	^	^	^	^
ickens	Λ	^	Λ	^	^	^	Λ	^	24.1	17	Λ	^
	~	~	~	~	~	~	~	~			~	~
ike									32.2	33		
andolph	\wedge	^	\wedge	^	^	^	^	^	16.8	19	Λ	^
ussell	10.1	15	^	^	^	^	^	^	16.2	26	^	^
t. Clair	10.0	37	^	^	7.1	30	~	^	17.2	67	^	^
helby	5.2	45	^	^	6.1	51	~	~	20.8	178	^	~
umter	J.Z ^	45	^	^	0.1	~	~	~	20.8 A	^	^	~
							Λ Λ	∧ ∧			л Л	^
alladega	10.5	30	12.7	16	8.3	31			18.6	61		
allapoosa	12.2	20	29.9	17	6.8	16	^	^	16.4	33	Λ	^
uscaloosa	6.8	42	8.3	22	5.6	41	^	^	17.3	116	^	^
/alker	11.5	38	^	^	8.5	39	~	^	19.2	67	^	^
/ashington	^	~	^	~	0.5	^	~	~	13.2	~	^	^
	Λ 	∧	Λ 	Λ Λ	Λ Λ	∧	Λ 	~	Λ 	~		^
Vilcox			/\					~ ~ ~	~ ~			· · · · ·

Cancer Mortality Tables

Table 9, Alabama Cancer Mortality Rates and Counts, by Site, Race, and Sex, 2003-2012 Combined

			Male an	d Female						ale		
	All F	Races	W	nite	Bla	ack	All F	laces	W	nite	Bla	ack
	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count
ll Malignant Cancers	195.8	99,989	190.0	76,822	222.5	22,727	255.1	54,721	243.8	42,216	313.8	12,303
Oral Cavity and Pharynx	2.9	1,493	2.7	1,095	3.6	393	4.6	1,047	4.2	752	6.4	292
Digestive System	44.0	22,501	40.4	16,339	58.8	6,026	57.9	12,686	53.3	9,356	78.9	3,267
Esophagus	4.0	2,113	3.8	1,577	4.8	529	7.4	1,709	7.1	1,303	8.7	400
Stomach	3.6	1,828	2.7	1,094	7.1	715	5.0	1,070	3.8	641	10.7	423
Small Intestine	0.2	128	0.2	93	0.3	35	0.3	63	0.2	44	0.4	19
Colon and Rectum	17.8	9,034	16.2	6,500	24.7	2,502	22.3	4,758	20.3	3,473	32.1	1,270
Colon Excluding Rectum	14.7	7,452	13.3	5,327	20.9	2,097	18.3	3,852	16.5	2,802	26.9	1,037
Rectum and Rectosigmoid Junction	3.1	1,582	2.9	1,173	3.8	405	4.0	906	3.8	671	5.2	233
Anus, Anal Canal, and Anorectum	0.2	1,302	0.2	82	0.3	31	0.2	57	0.2	39	0.4	18
Liver and Intrahepatic Bile Duct	5.7	2,960	5.4	2,196	6.7	723	8.3	1,911	7.8	1,415	10.2	472
•						81						
Gallbladder	0.5	263	0.4	179	0.8		0.5	101	0.5	78	0.7	22
Pancreas	11.1	5,688	10.6	4,317	13.2	1,340	13.0	2,852	12.6	2,226	14.9	615
Other Digestive Organs	0.2	115	0.2	79	0.4	34	0.3	61	0.2	44	0.5	17
Respiratory System	61.7	32,051	63.2	26,030	56.8	5,905	89.8	19,963	88.8	15,926	96.0	3,972
Larynx	1.4	741	1.2	514	2.1	226	2.6	600	2.2	402	4.3	197
Lung and Bronchus	60.0	31,152	61.7	25,398	54.4	5,641	86.8	19,263	86.2	15,451	91.1	3,749
Bones and Joints	0.6	280	0.6	212	0.6	65	0.7	155	0.7	119	0.8	34
Soft Tissue Including Heart	1.2	604	1.1	444	1.4	156	1.3	296	1.3	230	1.4	66
Skin Excluding Basal and Squamous	3.7	1,868	4.4	1,760	1.0	104	5.8	1,257	6.9	1,194	1.3	59
Melanoma of the Skin	2.8	1,449	3.5	1,403	0.4	43	4.4	949	5.3	932	^	^
Other Non-Epithelial Skin	0.8	419	0.9	357	0.6	61	1.5	308	1.6	262	1.0	45
Breast	13.3	6,749	11.9	4,742	18.5	1,969	0.3	56	0.2	40	0.4	16
Female Genital System	*	*	*	*	*	*	*	*	*	*	*	*
Cervix Uteri	*	*	*	*	*	*	*	*	*	*	*	*
Corpus and Uterus, NOS	*	*	*	*	*	*	*	*	*	*	*	*
Corpus Uteri	*	*	*	*	*	*	*	*	*	*	*	*
Uterus, NOS	*	*	*	*	*	*	*	*	*	*	*	*
Ovary	*	*	*	*	*	*	*	*	*	*	*	*
Vagina	*	*	*	*	*	*	*	*	*	*	*	*
Vulva	*	*	*	*	*	*	*	*	*	*	*	*
Other Female Genital Organs	*	*	*	*	*	*	*	*	*	*	*	*
Male Genital System	*	*	*	*	*	*	29.1	5,355	22.3	3,345	64.3	1,998
Prostate	*	*	*	*	*	*	29.1	5,235	22.3	3,248	63.8	1,998
Testis	*	*	*	*	*	*	0.3	66	0.4	60	05.8	1,973
	*	*	*	*	*	*				31		
Penis Other Mala Capital Opport	*	*	*	*	*	*	0.2	47	0.2	51	0.4	16
Other Male Genital Organs												
Urinary System	8.0	4,052	8.3	3,320	7.3	722	13.0	2,685	13.5	2,258	11.1	420
Urinary Bladder	3.9	1,929	4.1	1,627	3.2	299	7.0	1,362	7.4	1,188	5.1	171
Kidney and Renal Pelvis	4.0	2,038	4.0	1,622	4.0	410	5.8	1,270	5.8	1,026	5.8	241
Ureter	0.1	44	0.1	38	^	^	0.1	26	0.1	21	^	^
Other Urinary Organs	0.1	41	0.1	33	^	^	0.1	27	0.1	23	^	^
Eye and Orbit	0.1	30	0.1	28	^	^	0.1	16	0.1	15	^	^
Brain and Other Nervous System	4.6	2,362	5.3	2,090	2.4	262	5.6	1,301	6.3	1,148	3.1	150
Endocrine System	0.7	360	0.7	279	0.7	78	0.8	169	0.8	134	0.8	33
Thyroid	0.4	212	0.4	165	0.5	46	0.4	96	0.4	77	0.5	19
Other Endocrine Including Thymus	0.3	148	0.3	114	0.3	32	0.3	73	0.3	57	^	^
Lymphoma	7.0	3,482	7.5	2,958	4.9	502	8.7	1,822	9.3	1,558	5.9	250
Hodgkin Lymphoma	0.4	205	0.4	155	0.4	49	0.5	111	0.5	84	0.5	26
Non-Hodgkin Lymphoma	6.6	3,277	7.0	2,803	4.5	453	8.2	1,711	8.8	1,474	5.4	224
Myeloma	4.1	2,060	3.4	1,375	6.8	676	5.1	1,068	4.4	, 746	8.1	318
Leukemia	7.5	3,738	7.8	3,073	6.4	653	10.4	2,124	10.8	1,776	8.8	343
Lymphocytic Leukemia	2.0	1,003	2.1	824	1.8	176	2.9	582	3.0	479	2.6	101
Acute Lymphocytic Leukemia	0.4	193	0.4	159	0.3	31	0.5	118	0.6	98	0.3	18
Chronic Lymphocytic Leukemia	1.5	727	1.5	593	1.4	134	2.1	410	2.1	336	2.0	74
Myeloid and Monocytic Leukemia	3.1	1,545	3.2	1,269	2.6	271	4.1	873	4.3	740	3.3	132
Acute Myeloid Leukemia	2.5	1,545	3.Z 2.6	1,269	2.0	271	3.4	717	4.3 3.5	607	2.8	132
											2.8 ^	109
Chronic Myeloid Leukemia	0.3	164	0.4	136	0.3	28	0.4	85	0.5	71		
Other Leukemia	2.4	1,190	2.5	980	2.1	206	3.4	669	3.5	557	3.0	110
Miscellaneous Malignant Cancer	16.4	8,346	15.7	6,339	19.3	1,974	21.8	4,721	20.9	3,619	26.5	1,084

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.

			Fer	nale		
	All F	Races	W	hite	Bla	ack
	Rate	Count	Rate	Count	Rate	Count
II Malignant Cancers	155.7	45,268	152.5	34,606	169.5	10,424
Oral Cavity and Pharynx	1.5	446	1.5	343	1.6	101
Digestive System	33.4	9,815	30.3	6,983	45.2	2,759
Esophagus	1.4	404	1.2	274	2.0	129
Stomach	2.6	758	2.0	453	4.8	292
Small Intestine	0.2	65	0.2	49	0.3	16
Colon and Rectum	14.6	4,276	13.2	3,027	20.1	1,232
Colon Excluding Rectum	12.2	3,600	11.0	2,525	17.3	1,060
Rectum and Rectosigmoid Junction	2.3	676	2.2	502	2.8	172
Anus, Anal Canal, and Anorectum	0.2	56	0.2	43	^	^
Liver and Intrahepatic Bile Duct	3.6	1,049	3.4	781	4.1	251
Gallbladder	0.6	162	0.4	101	1.0	59
Pancreas	9.6	2,836	9.0	2,091	12.0	725
Other Digestive Organs	0.2	54	0.1	35	0.3	17
Respiratory System	41.4	12,088	44.2	10,104	31.6	1,933
Larynx	0.5	141	0.5	112	0.5	29
Lung and Bronchus	40.7	11,889	43.5	9,947	30.9	1,892
Bones and Joints	0.4	125	0.4	93	0.5	31
Soft Tissue Including Heart	1.1	308	1.0	214	1.4	90
Skin Excluding Basal and Squamous	2.1	611	2.6	566	0.7	45
Melanoma of the Skin	1.8	500	2.2	471	0.5	29
Other Non-Epithelial Skin	0.4	111	0.4	95	0.2	16
Breast	23.4	6,693	21.2	4,702	30.9	1,953
Female Genital System	16.2	4,658	15.2	3,393	20.4	1,242
Cervix Uteri	3.0	795	2.5	478	5.1	313
Corpus and Uterus, NOS	3.4	1,003	2.6	599	6.6	402
Corpus Uteri	1.7	514	1.4	317	3.2	195
Uterus, NOS	1.7	489	1.2	282	3.4	207
Ovary	8.9	2,606	9.2	2,108	8.0	483
Vagina	0.3	92	0.3	75	0.3	16
Vulva	0.4	110	0.4	97	Λ	^
Other Female Genital Organs	0.2	52	0.2	36	0.3	16
Male Genital System	*	*	*	*	*	*
Prostate	*	*	*	*	*	*
Testis	*	*	*	*	*	*
Penis	*	*	*	*	*	*
Other Male Genital Organs	*	*	*	*	*	*
Urinary System	4.6	1,367	4.6	1,062	5.0	302
Urinary Bladder	1.9	567	1.8	439	2.2	128
Kidney and Renal Pelvis	2.6	768	2.6	596	2.7	169
Ureter	0.1	18	0.1	17	^	۸. ۱۵۵
Other Urinary Organs	Λ	~	Λ	Λ	Λ	^
Eye and Orbit	٨	Λ	٨	٨	٨	^
Brain and Other Nervous System	3.8	1,061	4.4	942	1.8	112
Endocrine System	0.7	191	0.7	145	0.7	45
Thyroid	0.4	116	0.4	88	0.4	27
Other Endocrine Including Thymus	0.3	75	0.3	57	0.3	18
Lymphoma	5.7	1,660	6.1	1,400	4.2	252
Hodgkin Lymphoma	0.4	94	0.3	71	0.3	232
Non-Hodgkin Lymphoma	5.4	1,566	5.8	1,329	3.8	229
Myeloma	3.4	992	2.7	629	6.0	358
Leukemia	5.6	1,614	5.7	1,297	5.0	310
Lymphocytic Leukemia	1.4	421	1.5	345	1.2	75
Acute Lymphocytic Leukemia	0.3	75	0.3	61	1.2	/5
	1.0	317				60
Chronic Lymphocytic Leukemia			1.1	257	1.0	
Myeloid and Monocytic Leukemia	2.4	672	2.4	529	2.2	139
Acute Myeloid Leukemia	2.0	554	2.0	435	1.8	115
Chronic Myeloid Leukemia	0.3	79	0.3	65	^	^
Other Leukemia Miscellaneous Malignant Cancer	1.8	521 3,625	1.8 11.9	423 2,720	1.6	96 890

^ Statistic not displayed due to fewer than 15 deaths.

Table 10. Trends in Alabama Cancer Mortality, Selected Sites, 2008-2012

Females									
Breast		P-Value	e 0.626		Cervix		P-Valu	e 0.960	
	Rate/Trend	SE	Lower CI	Upper CI		Rate/Trend	SE	Lower CI	Upper CI
Total PC	-2.3				Total PC	-9.5			
Total APC	-0.8		-5.1	3.8	Total APC	-0.2		-9.3	9.9
2008 Rate	23.2	0.9	21.5	25.1	2008 Rate	3.2	0.4	2.6	4.0
2009 Rate	21.9	0.9	20.2	23.7	2009 Rate	2.8	0.3	2.2	3.6
2010 Rate	23.3	0.9	21.6	25.2	2010 Rate	2.8	0.3	2.2	3.6
2011 Rate	21.2	0.9	19.6	23.0	2011 Rate	3.4	0.4	2.7	4.2
2012 Rate	22.7	0.9	21.0	24.5	2012 Rate	2.9	0.3	2.3	3.7
Males					Males and	Females			

Prostate		P-Valu	e 0.104		All Sites P-Value 0.004					
	Rate/Trend	SE	Lower CI	Upper Cl		Rate/Trend	SE	Lower CI	Upper Cl	
Total PC	-20.7				Total PC	-6.1				
Total APC	-4.8		-10.9	1.9	Total APC	-1.7*		-2.5	-1.0	
2008 Rate	27.9	1.3	25.5	30.4	2008 Rate	196.7	2.0	192.9	200.6	
2009 Rate	27.7	1.2	25.4	30.3	2009 Rate	195.6	2.0	191.8	199.5	
2010 Rate	27.6	1.2	25.3	30.1	2010 Rate	190.0	1.9	186.3	193.8	
2011 Rate	26.5	1.2	24.3	28.9	2011 Rate	186.0	1.9	182.3	189.7	
2012 Rate	22.1	1.1	20.1	24.3	2012 Rate	184.7	1.9	181.1	188.4	

Males and Females

Colorectal		P-Value	e 0.035		Lung		P-Value	e 0.096	
	Rate/Trend	SE	Lower CI	Upper Cl		Rate/Trend	SE	Lower CI	Upper Cl
Total PC	-13.9				Total PC	-8.1			
Total APC	-3.7*		-6.8	-0.5	Total APC	-2.5		-5.8	0.8
2008 Rate	19.0	0.6	17.9	20.3	2008 Rate	58.8	1.1	56.7	61.0
2009 Rate	17.4	0.6	16.3	18.6	2009 Rate	61.4	1.1	59.3	63.5
2010 Rate	16.8	0.6	15.7	18.0	2010 Rate	59.5	1.1	57.4	61.6
2011 Rate	16.2	0.6	15.1	17.3	2011 Rate	56.4	1.0	54.4	58.4
2012 Rate	16.4	0.6	15.3	17.5	2012 Rate	54.1	1.0	52.1	56.1
Melanoma		P-Value	e 0.896		Oral		P-Valu	e 0.631	
	Rate/Trend	SE	Lower CI	Upper Cl		Rate/Trend	SE	Lower CI	Upper Cl
Total PC	10.7				Total PC	-7.5			
Total APC	-0.5		-11.8	12.2	Total APC	-1.4		-9.6	7.5
2008 Rate	2.7	0.2	2.3	3.2	2008 Rate	2.8	0.2	2.4	3.3
2009 Rate	3.3	0.3	2.9	3.9	2009 Rate	2.5	0.2	2.1	3.0
2010 Rate	2.7	0.2	2.2	3.1	2010 Rate	3.0	0.2	2.6	3.5
2011 Rate	2.7	0.2	2.2	3.1	2011 Rate	2.5	0.2	2.1	3.0
2012 Rate	3.0	0.2	2.5	3.5	2012 Rate	2.6	0.2	2.2	3.1

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; APCs were calculated using weighted least squares method.

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

Table 11. Alabama and United States Cancer Incidence Rates, by Site, Race, and Sex, 2007-2011*

Males and Females						
		Alabama			United States	
	All Races	White	Black	All Races	White	Black
All Sites	471.2 [#]	468.1	472.7	467.6	467.9	477.3
Lung and Bronchus	74.5#	76.9#	65.6	64.9	65.7	67.7
Colon and Rectum	46.5#	44.3#	55.2 [#]	43.3	42.3	51.2
Melanoma of the Skin	21.0#	26.9 [#]	1.0	19.7	22.2	1.0
Males						
		Alabama			United States	
	All Races	White	Black	All Races	White	Black
All Sites	572.0#	556.0 [#]	613.6#	535.8	528.9	594.8
Lung and Bronchus	100.7#	100.2#	104.6#	78.6	78.2	93.3
Colon and Rectum	56.0#	53.4 [#]	67.9 [#]	50.0	48.8	60.6
Melanoma of the Skin	28.2#	35.1#	0.9	25.1	28.0	1.1
Prostate	154.9#	130.8	229.9#	142.1	131.4	216.0
Females						
		Alabama			United States	
	All Races	White	Black	All Races	White	Black
All Sites	398.7^	404.6^	380.3^	419.1	424.9	399.0
Lung and Bronchus	55.0	59.3 [#]	39.8^	54.7	56.3	50.7
Colon and Rectum	38.9	36.8	46.8	37.8	36.9	44.8
Melanoma of the Skin	15.9	21.1 [#]	1.0	15.8	18.1	1.0
Breast	119.1^	116.8^	124.6	122.8	124.0	120.7
Cervix	8.6#	8.2	10.4	7.8	7.6	10.0

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), 2014. Data Years: 2007-2011. United States Data: NAACCR CINA+ Online, 2014. Data Years: 2007-2011.

Table 12. Alabama and United States Cancer Mortality Rates, by Site, Race, and Sex, 2003-2012

		Alabama			United States	
	All Races	White	Black	All Races	White	Black
All Sites	195.8#	190.0#	222.5#	182.3	181.8	215.9
Lung and Bronchus	60.0#	61.7#	54.4	49.6	50.3	53.9
Colon and Rectum	17.8#	16.2	24.7 [#]	16.9	16.4	23.3
Melanoma of the Skin	2.8	3.5#	0.4	2.7	3.1	0.4
Males						
		Alabama			United States	
	All Races	White	Black	All Races	White	Black
All Sites	255.1#	243.8#	313.8#	222.2	220.3	281.9
Lung and Bronchus	86.8#	86.2 [#]	91.1 [#]	63.8	63.6	79.0
Colon and Rectum	22.3#	20.3	32.1#	20.2	19.7	29.1
Melanoma of the Skin	4.4	5.3#	0.3	4.0	4.6	0.5
Prostate	28.6#	21.7	63.8#	23.2	21.5	50.6
Females						
		Alabama			United States	
	All Races	White	Black	All Races	White	Black
All Sites	155.7	152.5^	169.5^	154.8	154.8	176.7
Lung and Bronchus	40.7#	43.5#	30.9^	39.1	40.3	37.4
Colon and Rectum	14.6	13.2^	20.1	14.3	13.9	19.6
Melanoma of the Skin	1.8	2.2	0.5	1.7	2.0	0.4
Breast	23.4	21.2^	30.9	23.0	22.5	31.2
Cervix	3.0#	2.5	5.1 [#]	2.4	2.2	4.2

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 rate for United States (p<0.05).

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

Sources: Alabama Data: Alabama Statewide Cancer Registry (ASCR), 2014. Data Years: 2003-2012. United States Data: CDC WONDER, 2014. Data Years: 2003-2012.

Health Risk and Cancer Screening Behaviors Tables

Current Cigarette Smoking	Alabama	United States
Total Adults	21.5	19.0
Male Adults	25.1	21.6
Female Adults	18.2	17.2
Low Education	34.1	33.4
White	21.9	18.6
Black	22.3	22.2
Total High School Students	18.0	15.7
Male High School Students	21.5	16.4
Female High School Students	14.2	15.0
White High School Students	22.1	18.6
Black High School Students	9.1	8.3

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, 2012			
Sigmoidoscopy/Colonoscopy	Alabama	United States	
Total Adults	67.8	67.3	
Male Adults	65.3	65.8	
Female Adults	69.8	68.6	
White	68.4	69.6	
Black	67.5	66.1	
Low Education	57.2	55.7	
Fecal Occult Blood Test in the Past 2 Years	Alabama	United States	
Total Adults	16.7	14.2	
Male Adults	28.5	14.4	
Female Adults	15.1	14.3	
White	14.4	14.1	
Black	16.7	17.5	
Low Education	11.0	13.2	

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, 2012			
Mammogram in the Past 2 Years	Alabama	United States	
40 Years and Older	74.3	74.0	
White	73.5	74.2	
Black	78.1	78.3	
Low Education	63.4	62.7	
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, 2012			
PSA within the Past 2 Years	Alabama	United States	
50-59 Years Old	46.3	45.1	
60-64 Years Old	64.9	61.0	
65 Years and Older	69.2	66.7	
White	57.1	55.2	
Black, 45 Years and Older	49.4	49.0	
Low Education	33.0	37.2	
Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.			

Table 17. Percentage of Cervical Cancer Screening, Women 18 and Older, Alabama and the US, 2012			
Pap Test within the Past 3 Years	Alabama	United States	
Total 18 Years and Older	80.1	78.0	
White	77.9	77.8	
Black	85.9	83.5	
Low Education	70.4	72.0	
Source Pabaviaral Rick Factor Surveillance System Contern for Disease Control and Dravention			

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

Consuming Vegetables Less than One Time Daily	Alabama	United States
Total	25.8	22.9
Male	28.3	25.8
Female	23.5	19.6
White	20.8	20.3
Black	40.8	36.5
Low Education	38.2	33.2
Consuming Fruit Less than One Time Daily	Alabama	United States
Total	45.9	39.2
Male	49.1	44.4
Female	43.0	33.8
White	47.6	38.5
Black	42.7	43.0
Low Education	50.7	46.4

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, 2013			
Participated in ≥150 Minutes Aerobic Physical Activity per Week	Alabama	United States	
Total	45.4	50.8	
Male	49.9	52.5	
Female	41.2	49.5	
White	47.1	53.5	
Black	42.5	43.8	
Low Education	34.2	38.0	

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

Table 20. Percentage of Overweight*, Adults 18 and Older, Alabama and the US, 2013			
Overweight	Alabama	United States	
Total	68.1	64.8	
Male	71.7	70.5	
Female	64.9	57.8	
White	65.6	63.2	
Black	75.7	72.3	
Low Education	69.1	67.7	
Source: Behavioral Bisk Factor Surveillance System Cent	ters for Disease Control and Prevention *BMI 25 and over	·	

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

Sources

1. American Cancer Society. *Cancer Facts & Figures 2014*. Atlanta: American Cancer Society; 2014.

2. Alabama Statewide Cancer Registry (ASCR), 2014. Data Years: 2003-2012 (Incidence and Mortality). Alabama Department of Public Health.

3. Alabama Data: Alabama Statewide Cancer Registry (ASCR), 2014. Data Years: 2007-2011. Alabama Department of Public Health. US Data: NAACCR CINA+ Online, 2014. Data Years: 2007-2011. 4. Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), National Vital Statistics System (NVSS), 2014. wonder.cdc.gov/cancer.html. Data Years: 2003-2012.

5. Behavioral Risk Factor Surveillance System, 2014. 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% 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's) 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 November 1, 2014. For cancer cases diagnosed during 2003-2012, the ASCR considered as reportable all incident cases with a behavior code of 2 (*in situ*, non-invasive) or 3 (invasive, primary site only) in the International Classification of Diseases for Oncology (ICDO) (3rd edition), with the exception of *in situ* cancer of the cervix. Basal and squamous cell carcinomas of the skin are also excluded, with the exception of 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 then 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 January 27, 2003, which define standard groupings of primary cancer sites. The January 2003 SEER 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. Because national publications tend to exclude in situ cases when calculating incidence rates except for bladder cancer, the ASCR has included a new table

(Table 11, page 24) that calculates incidence rates in the same fashion. This table was added to facilitate an accurate comparison between Alabama and United States incidence rates. Moreover, the ASCR incidence rates and their associated counts presented in Tables 1-8 are based on the 10 most recent years of data available and exclude *in situ* cases for all sites except urinary bladder. The ASCR chose to make this change to exclude *in situ* cases to bring this publication into line with the national publication standard of excluding *in situ* cases even if doing so prohibits direct comparisons to be made to previous editions of *Alabama Cancer Facts & Figures*.

Age-adjusted Mortality Rates

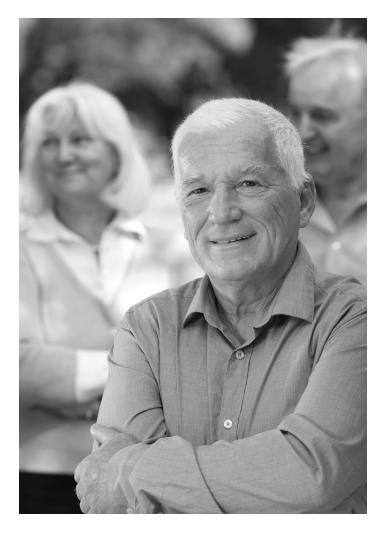
Mortality data for Alabama was obtained from the Alabama Department of Public Health Center for Health Statistics, and age-adjusted rates were calculated using the 2000 US standard population. Prior to the release of *Alabama Cancer Facts & Figures 2007*, cancer deaths of Alabama residents that occurred 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 (APC)

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 2012 cases were 95 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 then 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 Quality of Life Programs

For the nearly 1.7 million cancer patients expected to be diagnosed in 2014 and the approximately 14 million US cancer survivors, the American Cancer Society is available anytime, day or night, to offer free information, programs, services, and community referrals to patients, survivors, and caregivers to help them make decisions through every step of a cancer experience. These resources are designed to help people facing cancer on their journey to getting well.

Information, 24 Hours a Day, Seven Days a Week

The American Cancer Society is available 24 hours a day, seven days a week online at cancer.org and by calling 1-800-227-2345.

Callers are connected with a cancer information specialist who can help them locate a hospital, understand cancer and treatment options, learn what to expect and how to plan, help address insurance concerns, find financial resources, find a local support group, and more. The Society can also help people who speak languages other than English or Spanish find the assistance they need, offering services in 170 languages in total. Information on every aspect of the cancer experience, from prevention to survivorship, is also available through cancer.org, the organization website. The site contains in-depth information on every major cancer type, as well as on treatments, side effects, caregiving, and coping.

The Society also publishes a wide variety of pamphlets 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 complete list of Society books available to order. The Society publishes three peer-reviewed journals for health care providers and researchers: *Cancer*, *Cancer Cytopathology*, and *CA: A Cancer Journal for Clinicians*. Visit acsjournals.com for more information about the journals and their content.

Day-to-day Help and Emotional Support

The American Cancer Society can help cancer patients and their families find the resources they need to make decisions about the day-to-day challenges that can come from a cancer diagnosis, such as transportation to and from treatment, financial and insurance needs, and lodging when having to travel away from home for treatment. The Society also connects people with others who have been through similar experiences to offer emotional support.

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, or those with limited resources. The American Cancer Society Patient Navigator Program was designed to reach those most in need. The largest oncology-focused patient navigator program in the country, it has specially trained patient navigators at 121 cancer treatment facilities across the nation. Patient navigators work in cooperation with patients, family members, caregivers, and facility staff to connect patients with information, resources, and support to decrease barriers and ultimately to improve health outcomes. In 2013, approximately 77,000 people relied on the Patient Navigator Program to help them through their diagnosis and treatment. The Society collaborates with a variety of organizations, including the National Cancer Institute's Center to Reduce Cancer Health Disparities, the Center for Medicare and Medicaid Services, numerous cancer treatment centers, and others to implement and evaluate this program.

Transportation to Treatment

Cancer patients cite transportation to and from treatment as a critical need, second only to direct financial assistance. The American Cancer Society Road To Recovery[®] program matches these patients with specially trained volunteer drivers. This program offers patients an additional key benefit of companionship and moral support during the drive to medical appointments. In 2013, the Society provided more than 1.48 million transportation services to more than 283,000 constituents.



Lodging during Treatment

When someone diagnosed with cancer must travel away from home for the best treatment, where to stay and how to afford accommodations are immediate concerns and can sometimes affect treatment decisions. American Cancer Society Hope Lodge^{*} facilities provide free, homelike, temporary lodging for patients and their caregivers close to treatment centers, thereby easing the emotional and financial burden of finding affordable lodging. In 2013, the 31 Hope Lodge locations provided approximately 265,000 nights of free lodging to nearly 43,000 patients and caregivers – saving them nearly \$38 million in lodging expenses. The Society also provided discounted lodging to many patients and caregivers through arrangements with hotels in some communities without a Hope Lodge facility.

Breast Cancer Support

Through the American Cancer Society Reach To Recovery^{*} program, trained breast cancer survivor volunteers provide one-on-one support, information, and resource referrals to people facing breast cancer. Patients are matched with a volunteer who has had a similar breast cancer experience as well as other similar characteristics. These volunteers will meet oneon-one, either in person, by telephone, or via email, with women anytime throughout their breast cancer experience.

Cancer Education Classes

The I Can Cope[®] online educational program is available free to people facing cancer and their families and friends. The program consists of self-paced classes that can be taken anytime, day or night. People are welcome to take as few or as many classes as they like. Among the topics offered are information about cancer, managing treatments and side effects, healthy eating during and after treatment, communicating with family and friends, finding resources, and more. Visit cancer.org/onlineclasses to learn more about online classes.

Hair-loss and Mastectomy Products

Some women wear wigs, hats, breast forms, and special bras to help cope with the effects of mastectomy and hair loss. The American Cancer Society's *"tlc" Tender Loving Care*[®] magazine/ catalog offers informative articles and a line of products to help women who are battling cancer restore their appearance and self-esteem. The *"tlc"* products and catalogs may be ordered online at tlcdirect.org or by calling 1-800-850-9445. All proceeds from product sales go back into the Society's programs and services for patients and survivors.

Help with Appearance-related Side Effects of Treatment

The Look Good Feel Better^{*} program is a collaboration of the American Cancer Society, the Personal Care Products Council Foundation, and the Professional Beauty Association that helps women learn beauty techniques to restore their self-image and



cope with appearance-related side effects of cancer treatment. This free program engages certified, licensed beauty professionals trained as Look Good Feel Better volunteers to provide tips on makeup, skin care, nail care, and head coverings. Information and materials are also available for men and teens. To learn more, visit the Look Good Feel Better website at lookgoodfeelbetter.org or call 1-800-395-LOOK (1-800-395-5665).

Finding Hope and Inspiration

People with cancer and their loved ones do not have to face their cancer experience alone. They can connect with others who want support through the American Cancer Society Cancer Survivors Network[®] program. The free online community created by and for people living with cancer and their families, which is at csn.cancer.org, enables people to get and give support, connect with others, find resources, and tell their own story through personal expressions like music and art.

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