ALABAMA CANCER PLAN 2022 - 2027

An Action Plan to Reduce the Burden of Cancer in Alabama

Alabama
Comprehensive Cancer
Control Coalition

ALABAMA
PUBLIC
HEALTH

VISION STATEMENT

It is the vision of the Alabama Comprehensive Cancer Control Coalition (ACCCC) to eliminate the burden of cancer in Alabama; reduce the incidence, morbidity, and mortality of cancer in all Alabamians; and build sustainable strategies for cancer prevention and control.

MISSION STATEMENT

The mission of the ACCCC is to develop and sustain an integrated and coordinated approach to reducing cancer incidence, morbidity, and mortality, and to improve the quality of life and care for cancer survivors, their families, and their caregivers. ACCCC fulfills its mission by improving access to care, reducing cancer disparities, endorsing public policy, and developing and implementing the Alabama Cancer Plan (Plan). The Plan addresses primary, secondary, and tertiary prevention of cancers, including survivorship.

This mission complements the Centers for Disease Control and Prevention's (CDC) approach to advance health equity, eliminate preventable cancers, ensure all people get the right screening at the right time for the best outcome, and support cancer survivors in a way that allows them to live longer, healthier lives. ACCCC will coordinate, enhance, and strengthen the efforts of public agencies, academic institutions, and community-based private and public organizations that are concerned with cancer prevention, control, and care in Alabama.

ALABAMA CANCER PLAN GOAL

The goal for the Plan is to foster policy, systems, and environmental changes, as well as health promotion activities to address the burden of cancer through evidence-based strategies that support primary prevention, early detection efforts, and survivor's quality of life. The Plan serves as a blueprint for every person in the state to have an equally effective chance of receiving appropriate health care of equal quality. The goal and objectives of this cancer plan are aligned with our state partners' programs and plans to include the state's vaccination plan, the tobacco prevention and control plan, and the nutrition and physical activity plan.

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

August 1, 2022

From The State Health Officer

I am pleased to introduce the 2022-2027 Alabama Cancer Plan as produced by the Alabama Comprehensive Cancer Control Coalition (ACCCC). In keeping with the Coalition's mission, this plan addresses efforts to combat the cancer burden by reducing the incidence and mortality of the disease in Alabama. Each year, thousands of Alabamians are diagnosed with cancer, and thousands more succumb to the disease. Reduction in the rates of cancer in Alabama is achievable through an aggressive plan of action that includes fundamental lifestyle changes such as elimination of tobacco use, increased emphasis on physical activity and proper nutrition, participation in cancer screenings and vaccination, and appropriate and timely treatment. Although the COVID-19 pandemic has had a far-reaching impact on efforts to eliminate the burden of cancer, the Coalition is devoted to educating the public on the importance of getting back on track with routine cancer screenings.

The ACCCC is a diverse, statewide group of organizations and partners dedicated to implementing this important plan to fight cancer. It is through their hard work that this plan was developed, and it is our hope that this plan becomes the driving force behind cancer control activities in the state. I encourage you to become involved in reducing the cancer burden on Alabama residents. For more information on how you can join the ACCCC to help with this important task, please visit our website at alabamapublichealth.gov/cancercontrol and find us on Facebook at facebook.com/ALCompCancerCoalition.

Sincerely,

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

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ACCCC EXECUTIVE COMMITTEE

Dina Avery, DHSc, MA, MAEd (Chairperson)

Despite challenges brought on by the COVID-19 pandemic, the Alabama Comprehensive Cancer Control Coalition (ACCCC) utilized an integrated approach by having virtual and in-person activities to reach Alabama citizens. These initiatives were geared towards reducing the incidence, morbidity, and mortality of cancer in Alabama. We are seeking even more coalition members to join our efforts to help increase our engagement and implement needed cancer control activities. To learn how you can join ACCCC, please visit alabamapublichealth.gov/cancercontrol.

Heather Adams (Vice-Chairperson)

Health equity and Access to Care are the cornerstone of my work within the state and regional cancer communities. As the current Vice Chairperson of the Alabama Department of Public Health's Comprehensive Cancer Control Coalition, I am honored not only to be included in the 2022-2027 Alabama Cancer Plan, but also in the unceasing efforts to eliminate our state's cancer burden.

Casey L. Daniels, PhD, MPH (Immediate-Past Chairperson)

Cancer control and prevention have been my passion since I began my graduate studies and has led me to my current research career. As a cancer survivor and an Alabama native, I am particularly dedicated to decreasing cancer incidence and improving cancer outcomes in our state. I am also devoted to reducing health disparities in Alabama and improving cancer outcomes in rural and underserved populations. As the Immediate Past Chairperson of the state Comprehensive Cancer Control Coalition, it is a privilege to assist in shaping the priorities and strategies that will guide our efforts to reduce the burden of cancer on Alabamians.

ACCESS TO CARE SUBCOMMITTEE

Mary Elizabeth Brooks, Med, BSW (Chair)

Janel Lowman (Co-Chair)

The Access to Care Committee is a diverse group of healthcare professionals, health and cancer health disparities advocates, and volunteers who believe that having access to quality health care for every Alabamian is a *right and not a privilege*. The committee's proven record of community outreach and engagement efforts transcend professional roles and responsibilities as demonstrated through continuous collaboration with community and state-wide advocacy groups—ARISE Alabama and the Cover Alabama Coalition—in constant pursuit of Medicaid expansion in Alabama and to reduce the burden of cancer for all.

EARLY DETECTION SUBCOMMITTEE

JoAnn Oliver, PhD, ANP-BC, CNE (Chair)

Kimberly Williams, BA (Co-Chair)

The ACCCC Early Detection Committee remained dedicated to the goals and objectives of the coalition and the Plan. The committee's persistence and commitment to make an impact was evident. Educating the community about the importance of early detection and promoting participation in screening was a foundational effort and priority of the committee's collaborative efforts within our coalition. Our diverse group of members from across the state met monthly via video conferencing to strategically develop and implement activities to promote cancer screening and share resources. Our committee reached out to sororities, churches, and other community organizations throughout Alabama to disseminate information and to remind everyone that screening saves lives.

PREVENTION SUBCOMMITTEE

John Waterbor, MD, PhD (Chair)

Rochelle Wallace, MS (Co-Chair)

The core of public health is prevention. The mission of our Prevention Committee is to educate the public that cancer can be prevented. The major causes of cancer include lifestyle factors that we can control, such as smoking, obesity, and lack of physical activity. Some cancers can be prevented by vaccines. Still other cancers can be detected and treated early, thereby preventing needless deaths. Cancer incidence rates and mortality rates can be greatly reduced if we pull together as a community to lead healthier lives, take care of ourselves, and make wellness a priority. Just an ounce of prevention is worth a pound of cure!

SURVIVORSHIP/PALLIATIVE CARE SUBCOMMITTEE

Jennifer Bail, PhD, RN (Chair)

Sheila McElhany (Co-Chair)

The ACCCC Survivorship and Palliative Care Committee aims to improve the quality-of-life for cancer patients, survivors, and their loved ones, from diagnosis to end of life. The committee works to raise awareness of quality-of-life issues, promote supportive care services, and create and/or disseminate educational resources.

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PURPOSE

The Plan is the result of community stakeholders, leaders, champions, academicians, researchers, medical providers, and survivors working together to define the burden of cancer and provide an actionable framework that will guide statewide efforts to address cancer in Alabama. The Plan provides goals, objectives, and evidence-based (proven) strategies to assist in a coordinated approach.

Participants were selected for subcommittees based on expertise or interest in cancer prevention, early detection, survivorship and palliative care, and access to care. Due to the pandemic, virtual meetings occurred to brainstorm and discuss the best approach in developing the Plan. Stakeholders across the state examined data, shared best practices, researched effective strategies, and discussed approaches to reducing the impact of cancer. The Alabama Statewide Cancer Registry (ASCR) was vital in providing accurate and up-to-date cancer data. The ASCR team examine trends in cancer incidence and identify populations at high risk for cancer.

The Plan was developed based on strategies that address policy (procedures, laws, rules for communities), systems (rules within an organization), and the environment (where we live and work). In addition, the following principles guided the Plan's development:

- Every person in the state must have an equally effective chance of receiving appropriate health care of equal quality.
- There must be a focus on disparities (groups in the population that experience a higher burden of illness, disability, or mortality) and populations of focus (groups in the population with special health care needs in order to further health equity).
- Goals must address the cancer control continuum — primary prevention, early detection, diagnosis, treatment, and survivorship with a health equity lens.
- Measures must be realistic and data driven.
- Goals and objectives are developed in alignment with the CDC's Division of Cancer Prevention and Control.

ALABAMA CANCER STATISTICS

Alabama Cancer Statistics (ALCS) is an annual publication produced by the ASCR. *ALCS* was developed to assist cancer control organizations, health professionals, legislators, donors, community groups, and others who are working to reduce the cancer burden throughout Alabama. The overall goal of the publication is to facilitate cancer control planning based on data and directed toward clear outcomes. It provides accurate and timely cancer incidence and mortality data by county, gender, and race as well as cancer risk factor information, to key Alabama stakeholders at all levels. The document served as an essential planning and evaluation tool for the Plan.

Cancer Incidence and Mortality in Alabama

In 2022, an estimated 30,120 Alabamians, or 83 per day, will receive a diagnosis of cancer [American Cancer Society (ACS) 2022]. Males in Alabama had a higher cancer incidence rate from 2015 to 2019 than females with a rate of 515.3 per 100,000 versus 406.6 per 100,000. Among males, black males had a higher cancer incidence rate than white males with a rate of 532.2 per 100,000 versus 498.9 per 100,000 from 2015 to 2019. Among females, white females had a higher cancer incidence rate than black females with a rate of 412.0 per 100,000 versus 384.6 per 100,000 during the same timeframe.

In 2022, an estimated 10,520 Alabamians, or 29 per day, will die from cancer. Lung cancer accounts for approximately 25 percent of all estimated cancer deaths (ACS 2022). In Alabama, males had a higher cancer mortality rate than females from 2015 to 2019 with a rate of 212.1 per 100,000 versus 139.2 per 100,000. Among males, black males had a higher cancer mortality rate than white males with a rate of 239.8 per 100,000 versus 207.4 per 100,000 from 2015 to 2019. Among females, black females had a higher cancer mortality rate than white females with a rate of 149.5 per 100,000 versus 137.1 per 100,000 during the same timeframe.

Top 5 Newly Diagnosed Cancer Cases Expected in Alabama in 2022: 30,210

- Prostate Cancer: 4,650
- Lung Cancer: 4,280
- Female Breast Cancer: 4,280
- Colorectal Cancer: 2,510
- Melanoma of the Skin: 1,480

Top 5 Cancer Deaths Expected in Alabama in 2022: 10,520

- Lung Cancer: 2,650
- Colorectal Cancer: 910
- Pancreatic Cancer: 830
- Female Breast Cancer: 730
- Prostate Cancer: 480

WHAT IS HEALTH EQUITY?

According to the Robert Wood Johnson Foundation, "Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care."

Health equity is achieved when every person has the opportunity to "attain his or her full health potential" and no one is "disadvantaged from achieving this potential because of social position or other socially determined circumstances," according to Communities in Action: Pathways to Health Equity. Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment.

Social determinants of health are nonmedical factors such as employment, income, housing, transportation, childcare, education, discrimination, and the quality of the places where people live, work, learn, and play, all of which influence health. These factors are "social" in the sense that they are shaped by social policies. Determinants of health can have a negative effect on health and quality of life that could lead to increased cancer incidence and mortality. Examples may include a person's inability to access a good education, healthy food, a safe home to live in, reliable transportation, health care, good air quality, and clean water. For example, it is hard to eat healthy food if there are no grocery stores or fresh food markets close by. Physical activity is challenging in unsafe neighborhoods or in communities where there are no sidewalks. Cancer screening is difficult for those who are unemployed or have a low income, those with no insurance, or those with no transportation. Differences in health outcomes among groups of people who are negatively

impacted by these nonmedical factors are known as health disparities. Addressing negative social determinants of health and reducing or eliminating health disparities will serve to advance health equity and ensure every person has an equal opportunity to be as healthy as possible.

Regarding cancer, equity is when everyone has an equal opportunity to prevent cancer, find it early, and receive proper treatment and follow-up after treatment is completed.

Throughout this document, strategies to improve health equity are highlighted. In addition, ACCCC recommends the following strategies to improve health equity in Alabama:

- Provide access to screening for people who are medically underserved and have low incomes.
- Study the reasons people may not be able to prevent cancer, find it early, and receive treatment.
- Educate Alabamians about cancer risk and prevention.
- Address barriers to accessing care for populations of focus through community health workers (CHWs), lay health educators, and patient navigators. Barriers include lack of medical home, coverage for care, food insecurity, education on the importance of screening, and distrust of the health system.
- Train medical professionals in providing culturally sensitive services to all patients, their families, and their chosen support person(s) throughout the cancer care continuum.
- Educate partners (clinics/health systems, worksites, and local coalitions) and the community about the availability of affordable or no cost prevention and screening services.
- Implement tailored media campaigns to promote prevention and screening for populations of focus.
- Increase appropriate use of telehealth and mobile screening services.
- Utilize cancer data from ASCR and other sources to identify health disparities and populations of focus, and target interventions to reduce disparities and advance health equity.

A FOCUS ON WHAT WORKS

Primary Prevention involves stopping cancer before it starts. Many cancers are preventable. Choosing healthy behaviors can substantially lower the risk of many types of cancer. Healthy behavior can prevent a precancerous or cancerous condition from starting. Primary prevention focuses on helping people choose healthy behaviors to lower their risk of getting cancer. Some examples of primary prevention of cancer include avoiding the use of tobacco products, practicing sun safety, receiving cancer prevention vaccines, maintaining a healthy diet, and exercising.

Secondary Prevention strategies, such as cancer screening, aim to identify cancer in the earliest stages before the onset of signs and symptoms. Screening is referred to as secondary prevention because it can prevent severe cases or death from cancer. Cancer screening aids in the discovery and removal of precancerous conditions (such as cervical dysplasia and colon polyps) and small cancers before they have metastasized beyond the focus of origin. By finding lesions or pre-cancers early, before cancer develops, treatment or removal can be more effective. Breast, cervical, and colorectal cancers are screen-detectable, meaning that there are reliable tests to detect these cancers early. Data shows screen-detected cancer cases survive longer than symptom-diagnosed cancer cases.

The following table presents an overview of approaches to primary and secondary prevention of major cancers.

Cancer	Primary Prevention	Secondary Prevention
Breast	Maintain healthy weight, increase physical activity, limit alcohol use	Mammography screening
Cervix	Receive human papillomavirus (HPV) vaccine, stop tobacco use, limit sexual partners	Pap smear, HPV screening, removal of pre-cancerous tissue
Colorectal	Maintain healthy weight, increase physical activity, stop tobacco use	Colonoscopy, fecal immunochemical test (FIT), removal of pre-cancerous polyps
Liver	Receive hepatitis B vaccine, stop tobacco use, limit alcohol use	Treatment of hepatitis
Lung	Stop tobacco use, radon testing and control in homes	Computerized tomography (CT) scan of smokers age > 55
Melanoma of the Skin	Limit sun exposure, avoid indoor tanning beds, wear sunscreen and protective clothing	Dermatologist screening for symptomatic individuals
Oropharyngeal (Oral Cavity/Pharynx)	Receive HPV vaccine, stop tobacco use, limit alcohol use, maintain healthy weight	Dental screening for symptomatic individuals
Prostate	Maintain healthy weight, increase physical activity	Prostate-specific antigen (PSA) testing

Tertiary Prevention is managing cancer after diagnosis to slow or stop its progression. This may include chemotherapy, rehabilitation, or screening for complications. From the moment someone is diagnosed with cancer, he or she is considered a cancer survivor throughout their lifespan. Surviving cancer, also called Survivorship, has physical, mental, emotional, social, and financial consequences that start with diagnosis and continue through treatment and beyond for survivors as well as their caregivers. Survivorship also includes issues related to follow-up treatment, side effects of treatment, the risk of getting cancer again, and quality of life. A cancer patient may choose to join a *clinical trial*. A clinical trial is a scientific study to find out which new drugs, procedures, treatments, and devices are safe and if they work well. Clinical trials are very important because they help doctors learn about cancer and develop better treatments that can help those diagnosed with cancer in the future.

PRIMARY PREVENTION

Lifestyle Modifications and Healthy Living

Lifestyle behaviors include personal actions of choice which may be influenced by external factors. By modifying certain behaviors, cancer risk can be greatly reduced.

Objective 1: Prevent Cancer through Lifestyle Changes

Lifestyle Modification	Cancers that Lifestyle Modification Can Decrease
Maintain a healthy weight/healthy eating	Colorectal, Breast, Endometrium, Kidney, Oropharyngeal, Ovary, Pancreas, Prostate
Increase physical activity	Breast, Colorectal, Prostate
Stop tobacco use	Lung and Bronchus, Cervix, Colorectal, Kidney, Larynx, Liver, Oropharyngeal, Pancreas, Urinary Bladder
Limit alcohol use	Liver, Breast, Colorectal, Larynx, Liver, Oropharyngeal, Pancreas

Important Facts:

*Combined effects of excess body weight, alcohol consumption, physical inactivity, and an unhealthy diet contribute to as many as 1 in 6 cancer-related deaths.

Strategic Actions:

Maintain Healthy Weight, Healthy Eating, and Increase Physical Activity:

1.1. Increase awareness of the link between being overweight/obese and an increased risk of cancers.
1.2. Promote weight loss support or maintenance coaching in community settings.
1.3. Promote worksite programs to assist employees who are overweight or obese.
1.4. Promote a healthy diet which emphasizes vegetables, whole grains, fruits, and nuts.
1.5. Promote moderate to vigorous physical activity in addition to limiting sedentary behavior.
1.6. Promote community-scale and street-scale urban design and land use policies that promote physical activity.
1.7. Support enhanced school-based physical education.
1.8. Promote point-of-decision prompts to encourage use of stairs.
1.9. Implement evidence-based school campus and community programs that increase youth adoption of healthy nutrition and regular physical activity.
1.10. Implement evidence-based employment site and community programs that increase adult adoption of healthy nutrition and regular physical activity.
1.11. Improve health professional knowledge, practice behaviors, and systems support to provide prescriptions for healthy nutrition and physical activity, referrals to community programs, and/or referrals to a dietitian.
1.12. Decrease health disparities by increasing access to healthy foods, safe places to exercise, and awareness of the links between weight, nutrition, physical activity, and cancer risk in populations of focus. (Health Equity).

Stop Tobacco Use

1.13. Promote policy limiting use of tobacco, smokeless tobacco, and vaping/e-cigarettes.

1.14. Provide reduced-cost cessation therapies.

1.15. Promote tools that support smoking cessation, such as text programs, smoke free apps, and smoke free social media.

1.16. Promote 1-800-QUIT-NOW toll-free hotline to offer evidence-based tobacco cessation treatment for tobacco users.

1.17. Promote referral to 1-800-QUIT-NOW toll-free hotline by primary care physicians.

1.18. Promote 100 percent smoke free/tobacco free policies to reduce secondhand smoke focusing on public institutions, such as, public housing, behavioral health facilities, and campus communities.

1.19. Increase awareness of the dangers of menthol-cigarettes and its impact in African American communities. (Health Equity)

Limit Alcohol Use

1.20. Increase awareness of the link between alcohol and an increased risk of cancers.

1.21. Promote limiting alcohol intake to no more than two drinks per day for men and one drink per day for women.

1.22. Collect data on alcohol use and alcohol related disease from communities with high rates of alcohol use, employing sufficiently large and culturally appropriate sampling strategies. (Health Equity)

Measures (Behavioral Risk Factor Surveillance System [BRFSS])	Baseline	2025 Goal
1. Maintain Healthy Weight, Healthy Eating, and Increase Physical Activity		
Obese (BMI-30-99.8)/Overweight (BMI 25-29) (67.1% US)	72.7% (2020)	<70%
One or more servings of fruit a day (60.7% US)	53.9% (2019)	60%
One or more servings of vegetables a day (79.7% US)	77.7% (2019)	80%
Exercise (77.6% US)	71.2% (2020)	75%
2. Stop Tobacco Use		
Current Smokers (15.5% US)	18.5% (2020)	17.5%
3. Limit Alcohol Use		
Heavy Drinking (6.7% US)	5.3% (2020)	5%

Cancer Vaccination

HPV is a common virus that can cause six types of cancers: cancers of the cervix, vagina, and vulva in women; cancer of the penis in men; and anal and oropharyngeal (oral cavity and pharynx) cancers in men and women. While there is no treatment for HPV infection, there is a vaccine that can prevent it. The HPV vaccine can prevent over 90 percent of these cancers. CDC recommends that the vaccine be given as early as 9 years of age, as the vaccine is most effective if received before exposure to the virus.

Hepatitis B Virus (HBV) can cause liver cancer. The HBV vaccine can protect against the HBV, reducing the risk of cancer. Up to 15 percent of liver cancer cases in the world are related to HBV infection. Transmission of hepatitis B can occur through sexual contact, sharing needles or other drug-injection equipment, or through transfer from mother to child during childbirth. African American, Hispanic, Asian and Pacific Islander populations are at higher risk for hepatitis B infection. Approximately 90 percent of infants who get Hepatitis B remain chronically infected.

Objective 2: Increase Cancer Vaccination Rates

Important Facts:

*Females: Gardasil 9 vaccines may be administered at ages 9-26 years. Males: Gardasil 9 vaccines recommended at ages 9-21 years. Males who identify as men who-have-sex-with-men or are immunocompromised who have not previously been vaccinated: Gardasil 9 vaccines recommended through age 26 years.

*Adults up to age 45 years based on their individual risk profile may choose to be vaccinated after discussion with their healthcare provider.

*The HBV vaccine is available for all age groups to prevent HBV infection.

Strategic Actions:

2.1. Conduct outreach activities to motivate populations that experience disproportionate numbers of HPV cancers and those with low vaccination rates.

2.2. Conduct educational campaigns to increase public awareness of the link between HPV/HBV and cancer.

2.3. Encourage community-clinical linkages that increase initiation and completion of the HPV vaccine series and hepatitis B vaccination.

2.4. Focus vaccine promotion in cities where cervical, oropharyngeal, and liver cancer rates are higher than in the rest of the state, with tailored messaging for that population.

2.5. Encourage collaboration with external partners to engage creative, multi-level interventions that increase initiation and completion of the HPV vaccine series.

2.6. Create regular opportunities to teach healthcare personnel about the HPV vaccine and how to effectively recommend it to patients.

2.7. Support the training of healthcare providers on the evidence-based “announcement approach.”

2.8. Improve reporting of HPV vaccination in the ADPH Immunization Patient Registry with Integrated Technology (ImmPRINT) System.

2.9. In concert with the HPV Adolescent and Adult Immunization Task Force utilize ImmPRINT data to report provider-specific or health-system specific comparative data of HPV vaccination initiation and completion rates.

2.10. Support the use of reminder systems in provider offices to increase HPV vaccination completion rates.

2.11. Support inclusion of HPV vaccination as a part of the vaccination regimen for students entering seventh grade by emphasizing all three recommended vaccines (tetanus-diphtheria-pertussis or Tdap, meningococcal, and HPV) be administered on the same day and in the same way.

2.12. Improve access to HPV vaccinations through school-based programs.

2.13. Educate partners on financial resources available for uninsured and underinsured populations for the HPV vaccine, including the Vaccine for Children (VFC) Program. (Health Equity)

Measures (ImmPRINT)	2020 Baseline	2025 Goal
Teens (13-17) who initiated the HPV vaccine series	50.4%	80%
Adults (18-26) who initiated the HPV vaccine series	34.5%	50%
Teens (13-17) who are up to date with HPV vaccine series	33%	40%
Adults (18-26) who are up to date with HPV vaccine series	24%	40%
Teens (13-17) who are up to date on hepatitis B vaccine	81%	85%
Infants who received a hepatitis B birth dose	95%	95%

Radiation Exposure

Radiation is energy that produces an electric field and an associated magnetic field, sometimes called electromagnetic waves. Low doses of radiation are released from our natural environment: from space, produced by the sun; and from the earth, produced by the natural breakdown of rocks, soil, vegetation, and groundwater. Exposure to radiation can also occur through medical imaging procedures such as X-rays, CT scans, and nuclear medicine tests such as positron emission tomography (PET) scans. In moderation, radiation from medical imaging is not dangerous. Patients should freely participate in imaging studies for screening or diagnosis, as the benefits outweigh the risks.

Radiation sources of concern are ultraviolet (UV) radiation from the sun, tanning beds, and sun lamps; and radon gas from the earth, which vary across Alabama and the U.S.

Objective 3: Reduce Radiation Exposure from the Sun and from Radon

UV Radiation from the Sun/Artificial Sources

UV radiation from the sun is made up of invisible rays of energy. The UV rays that reach the Earth's surface are called UVA and UVB rays. UV radiation can cause sunburn, skin damage, premature aging, and skin cancers, including melanoma, by damaging DNA. While the body can repair some DNA damage to skin cells, it cannot repair it all. UV damage is cumulative and can lead to skin cancer. Basal and squamous cell carcinomas are the most common types of skin cancer. Malignant melanoma is the third most common type of skin cancer and is the most aggressive

and deadly type of skin cancer. Melanoma ranks fifth in cancer incidences in Alabama. Melanoma can be deadly if diagnosed after it has metastasized to vital organs; it is the most serious cancer outcome associated with exposure to UV radiation. Overexposure to UV rays during childhood and adolescence increases your risk of skin cancer in adulthood.

Important Facts:

*Chronic UV radiation exposure, whether it is from natural light or indoor tanning, is the leading cause of skin cancer. Exposure to UVA and UVB radiation from the sun, tanning beds, or sun lamps is the major cause of all three types of skin cancer—melanoma, squamous cell carcinoma, and basal cell carcinoma.

*Individuals of all races, skin types, and skin tones are at risk of developing skin cancer. Although skin cancer is less common among nonwhite racial ethnic groups, they tend to be diagnosed at a later and less treatable stage.

Strategic Actions:

Sun/Radiation

3.1. Promote sun safety behaviors such as use of sunscreen, clothing that covers your arms and legs, a hat, sunglasses, and staying in the shade, especially during midday hours, as well as the dangers of sunburn, especially early in life.

3.2. Conduct educational campaigns in primary school settings and outdoor recreation settings.

3.3. Provide shade structures for public schools in low-income areas of Alabama. (Health Equity)

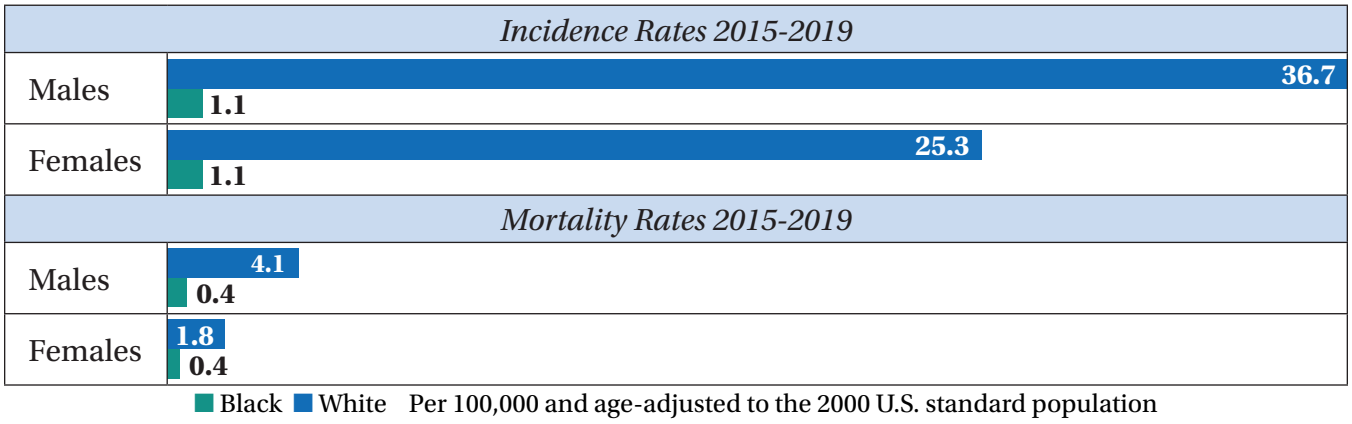
3.4. Promote dangers of indoor tanning which includes tanning beds or sun lamps.

3.5. Advocate for stronger policy restrictions to indoor tanning for minors under the age of 18.

3.6. Support Image Gently (children) and Image Wisely (adults) campaigns to encourage discussions with healthcare providers and documentation of medical radiation exposure.

Measures (ASCR)	2015-2019 Baseline	2021-2025 Goal
Reduce Overall Melanoma Incidence	22.8%	21.6%

Melanoma Incidence/Mortality Rates, by Sex and Race, Alabama



Radon

Radon is a naturally occurring gas released during the natural breakdown of uranium in rocks and soil. It cannot be seen, tasted, or smelled. This gas can build to dangerous levels inside homes or buildings. Radon enters the home through cracks or gaps in floors, walls, service pipes, and construction joints. If it is detected by the homeowner, venting can be installed to carry the gas out of the house. But left unchecked, breathing radon gas over a long period of time increases the risk of lung cancer. Radon is the second leading cause of lung cancer after cigarette smoking, causing about 20,000 cases of lung cancer each year. People who smoke tobacco and are exposed to radon are at a higher risk of developing lung cancer, because tobacco and radon work synergistically to dramatically increase lung cancer risk.

Strategic Actions:

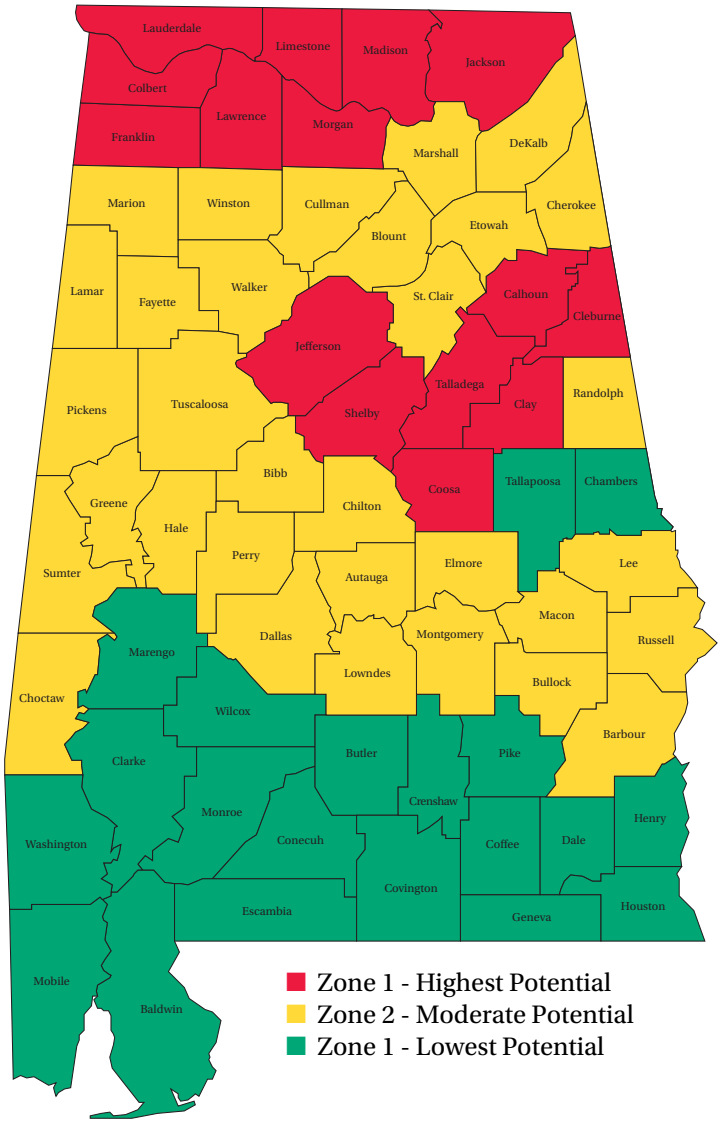
Radon

3.7. Promote the use of radon testing in homes in Alabama through use of radon test kits.

3.8. Conduct awareness campaigns in high-risk counties regarding risk of cancer from radon.

3.9. Increase awareness of the dangers of smoking in conjunction with radon exposure.

Alabama Radon Zones



SECONDARY PREVENTION

Breast Cancer

Objective 4: Increase Appropriate Screening and Early Detection of Breast Cancer

Important Facts:

*Genetic counseling and testing enable women to learn if a family history of breast cancer is due to an inherited gene mutation. Women with a breast cancer (BRCA) 1 or BRCA2 gene have a significantly increased risk of breast cancer. Nearly 1 percent of breast cancer is among men.

Strategic Actions:

4.1. Inform health professionals of current screening guidelines, practice behaviors (including cultural sensitivity), and systems support for breast cancer screening services (including Alabama Breast and Cervical Cancer Early Detection Program [ABCCEDP]) to include appropriate follow-up for individuals who receive abnormal mammogram results.

4.2. Encourage women aged 40 years and older to engage in informed conversations with their doctor about when to begin screening for breast cancer through mammography and how often.

4.3. Provide one-on-one and group education for patients regarding risk factors, screening guidelines, and the importance of early detection of cancer.

4.4. Conduct small and social media awareness campaigns (video, printed materials) about the importance of early detection of cancer.

4.5. Promote strategies that support patients to collaborate with a healthcare provider to maintain care and improve overall health.

4.6. Promote utilization of patient navigation programs to ensure follow-up and treatment.

4.7. Encourage worksite cultures that offer benefits and programs that facilitate detecting breast cancer at its earliest stages.

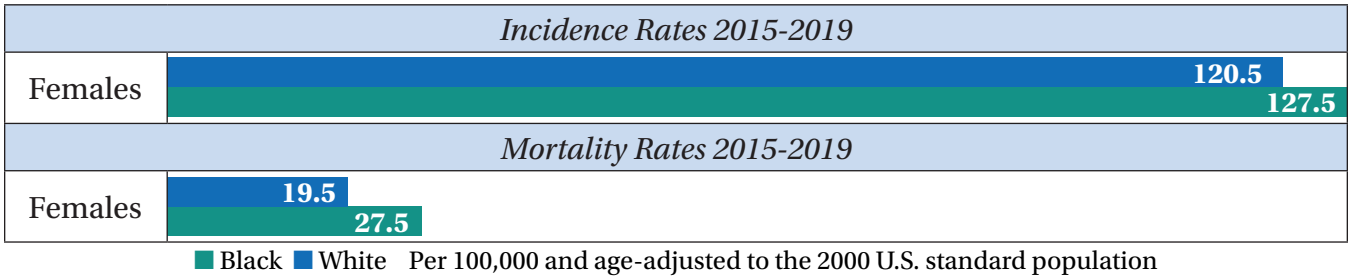
4.8. Reduce structural barriers such as screening location, limited hours of operation, lack of childcare, and language and cultural factors. (Health Equity)

4.9. Focus efforts to identify and provide mammograms to never or rarely screened “hard to reach” women. (Health Equity)

4.10. Collaborate with key stakeholders (faith-based organizations, health-care organizations, workplaces) to provide public education that focus their efforts on breast cancer, minority populations, and research. (Health Equity)

Measures	Baseline	Goal
Women 40 years and older who report having had a mammogram in the past 2 years (US 71.5) (BRFSS)	72.4% (2020)	75% (2024)
Reduce late stage incidence rate for breast cancer (ASCR)	39.6 per 100,000 (2015-2019)	37.6 Per 100,000 (2021-2025)
Reduce overall mortality rate for female breast cancer (ASCR)	21.4 per 100,000 (2015-2019)	20.3 per 100,000 (2021-2025)

Female Breast Cancer Incidence/Mortality Rates, Females, by Race, Alabama



Cervical Cancer

Objective 5: Increase Appropriate Screening and Early Detection of Cervical Cancer

Important Fact:

*Cervical cancer is highly preventable due to screening tests and the HPV vaccine. When cervical cancer is found early, it is highly treatable and associated with long survival and good quality of life.

Strategic Actions:

5.1. Inform health professionals of current screening guidelines, practice behaviors (including cultural sensitivity), and systems support for cervical cancer screening services (including ABCCEDP).

5.2. Educate health professionals on strategies to increase appropriate follow-up for individuals who receive abnormal Pap smear screening results.

5.3. Encourage women aged 21 years and older to engage in informed conversations with their doctor about when to begin screening for cervical cancer, which test may be best, and frequency of screenings.

5.4. Provide one-on-one education for patients regarding risk factors, screening guidelines, and the importance of early detection of cervical cancer.

5.5. Conduct small and social media awareness campaign (videos, printed materials) about the importance of early detection of cervical cancer.

5.6. Promote strategies that support patients to collaborate with a healthcare provider to maintain care and improve overall health.

5.7. Promote utilization of patient navigation programs to ensure follow-up and treatment.

5.8. Focus efforts to identify and provide cervical cancer screening to never or rarely screened "hard to reach" women. (Health Equity)

5.9. Collaborate with key stakeholders (faith-based organizations, health-care organizations, workplaces) to provide public education that focus their efforts on cervical cancer, minority populations, and research. (Health Equity)

5.10. Reduce disparities in cervical cancer mortality through targeted communication with high-risk populations on importance not only of screening test but follow-up and surveillance after treatment. (Health Equity)

Measures	Baseline	Goal
Increase percent of women 21 to 65 years who report having had a Pap test in the past 3 years (US 77.7) (BRFSS)	79.5% (2020)	80% (2024)
Reduce overall incidence rate of cervical cancer (ASCR)	9.5 per 100,000 (2015-2019)	8.6 per 100,000 (2021-2025)
Reduce overall mortality rate for cervical cancer (ASCR)	3.2 per 100,000 (2015-2019)	2.8 per 100,000 (2021-2025)

Cervical Cancer Incidence/Mortality Rates, Females, by Race, Alabama

Colorectal Cancer

Objective 6: Increase Screening and Early Detection of Colon and Rectal Cancer

Important Fact:

*Colorectal cancer almost always develops from precancerous polyps which are abnormal growths in the colon and rectum. Colorectal cancer screening can find precancerous polyps and remove them before they progress into cancer.

Strategic Actions:

6.1. Inform health professionals of current screening guidelines, practice behaviors (including cultural sensitivity), and systems support for colorectal cancer screening services to include appropriate follow-up for individuals who receive abnormal colorectal cancer screening results.

6.2. Promote colorectal cancer screening among all adults aged 45 to 75 years old providing education on the available screening options including stool testing.

6.3. Provide one-on-one education for patients regarding risk factors, screening guidelines, and the importance of early detection of colorectal cancer.

6.4. Conduct a small and social media awareness campaign (videos, printed materials) about the importance of early detection of colorectal cancer.

6.5. Promote strategies that support patients to collaborate with a healthcare provider to maintain care and improve overall health.

6.6. Promote utilization of patient navigation programs to ensure follow-up and treatment.

6.7. Promote client reminders, provider assessment and feedback, and recall systems.

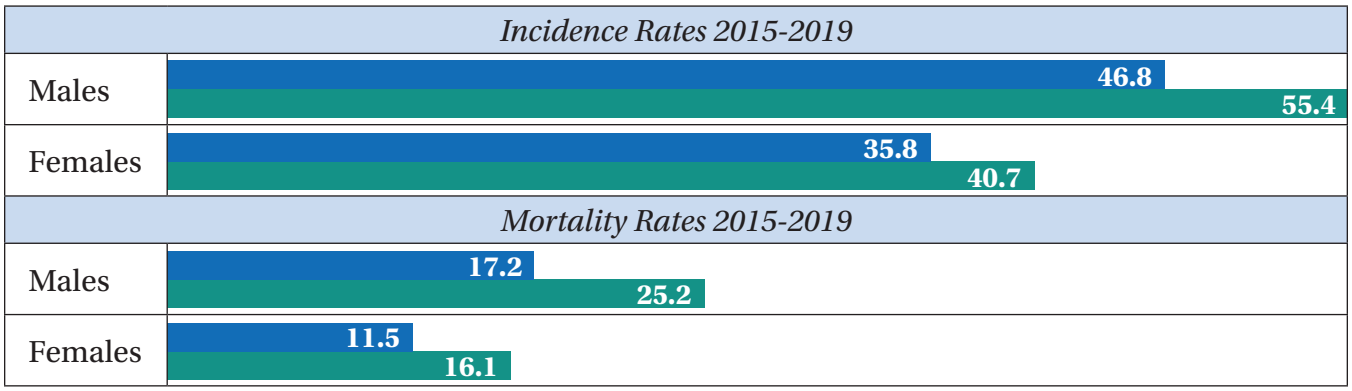
6.8. Encourage worksite cultures to offer benefits and programs that facilitate detecting colon and rectal cancer at its earliest stages.

6.9. Reduce structural barriers such as screening location, limited hours of operation, lack of childcare, and language and cultural factors. (Health Equity)

6.10. Collaborate with key stakeholders (faith-based organizations, health-care organizations, workplaces) to provide public education that focus their efforts on colorectal cancer, minority populations, and research. (Health Equity)

Measures	Baseline	Goal
Increase percent of Alabama men and women, age 45-75 years who report having had appropriate colon and rectal cancer screening (BRFSS)	76.9% (2020)	80% (2024)
Reduce late stage incidence rate for colorectal cancer (ASCR)	23.1 per 100,000 (2015-2019)	21.9 per 100,000 (2021-2025)
Reduce overall incidence rate for colorectal cancer (ASCR)	42.4 per 100,000 (2015-2019)	40.3 per 100,000 (2021-2025)
Reduce overall mortality rate for colorectal cancer (ASCR)	15.2 per 100,000 (2015-2019)	14.4 per 100,000 (2021-2025)

Colorectal Cancer Incidence/Mortality Rates, by Sex and Race, Alabama



Black White Per 100,000 and age-adjusted to the 2000 U.S. standard population

Prostate Cancer

Objective 7: Increase Screening and Early Detection of Prostate Cancer

Strategic Actions:

7.1 Inform health professionals of current screening guidelines, practice behaviors (including cultural sensitivity) and systems support for prostate cancer screening services (including when and where to refer to a urology specialist).

7.2. Direct men aged 40 years and older to engage in informed conversations with their doctor about when to begin screening for prostate cancer through PSA blood testing and how often.

7.3. Conduct small and social media awareness campaign (videos, printed materials) about the importance of early detection of prostate cancer.

7.4. Promote strategies that support patients to collaborate with a healthcare provider to maintain care and improve overall health.

7.5. Promote utilization of patient navigation programs to ensure follow-up and treatment.

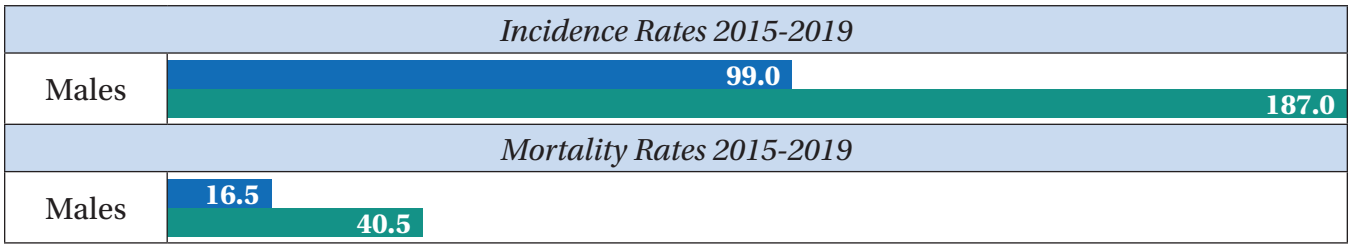
7.6. Encourage worksite cultures to offer benefits and programs that facilitate detecting prostate cancer at its earliest stages.

7.7. Distribute targeted information on prostate cancer screening (culturally sensitive and at the appropriate health literacy level) to men at higher risk of prostate cancer, specifically African American males, and men with a family history of one or more first-degree relatives diagnosed with prostate cancer. (Health Equity)

7.8. Collaborate with key stakeholders (faith-based organizations, health-care organizations, workplaces) to provide public education that focus their efforts on prostate cancer, minority populations, and research. (Health Equity)

Measures (ASCR)	2015-2019 Baseline	2021-2025 Goal
Reduce late stage incidence rate for prostate cancer	19.0 per 100,000	18.1 per 100,000
Reduce overall mortality rates of prostate cancer	20.6 per 100,000	19.6 per 100,000

Prostate Cancer Incidence/Mortality Rates, Males, by Race, Alabama



Black White Per 100,000 and age-adjusted to the 2000 U.S. standard population

Lung Cancer

Objective 8: Increase Low-dose CT Scan Screening Among Persons at High Risk for Lung Cancer

Important Facts:

*Patients need a referral from their doctor for a low-dose CT screening.

*Usually symptoms of lung cancer do not appear until the disease is already at an advanced stage. Even when lung cancer does cause symptoms, many people may mistake them for other problems, such as an infection or long-term effects from smoking. This may delay diagnosis.

Strategic Actions:

8.1. Inform health professionals on screening guidelines, practice behaviors (including cultural sensitivity), and systems support for lung cancer screening services.

8.2. Promote lung cancer screening among people aged 50 to 80 years who have a 20-pack year smoking history and currently smoke or have quit within the past 15 years.

8.3. Promote discussion between patients and primary care providers on risks and benefits of lung cancer screening based on the United States Preventive Services Task Force (USPSTF) recommended age and patient's smoking history.

8.4. Provide eligible Alabama QUITLINE users with information about lung cancer screening programs.

8.5. Conduct small and social media awareness campaign (video, printed materials) about the importance of early detection of cancer.

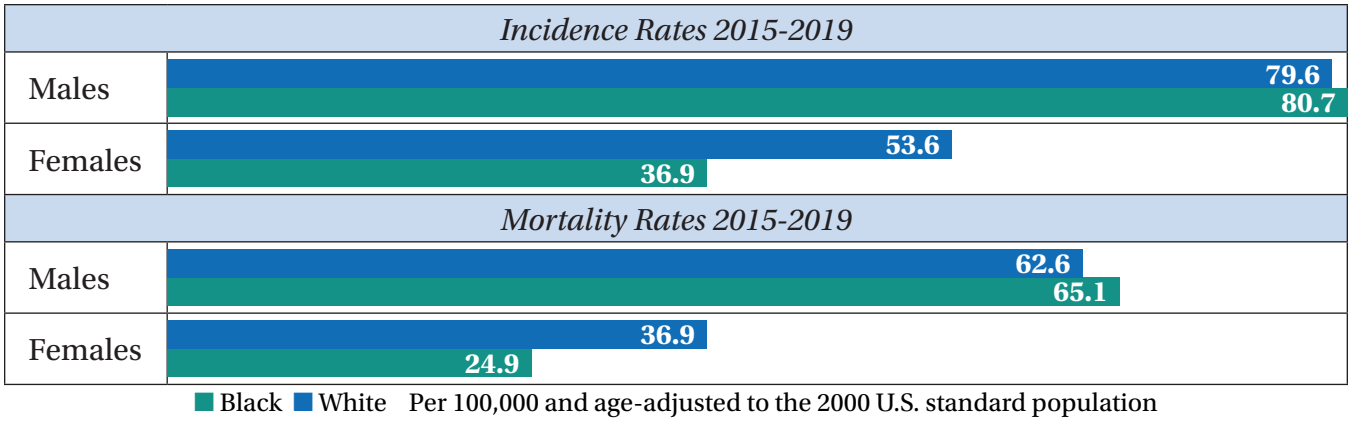
8.6. Add pack-years to smoking history captured in data systems to determine who is eligible for lung cancer screening.

8.7. Assess availability of low-dose CT and promote availability among providers for referrals.

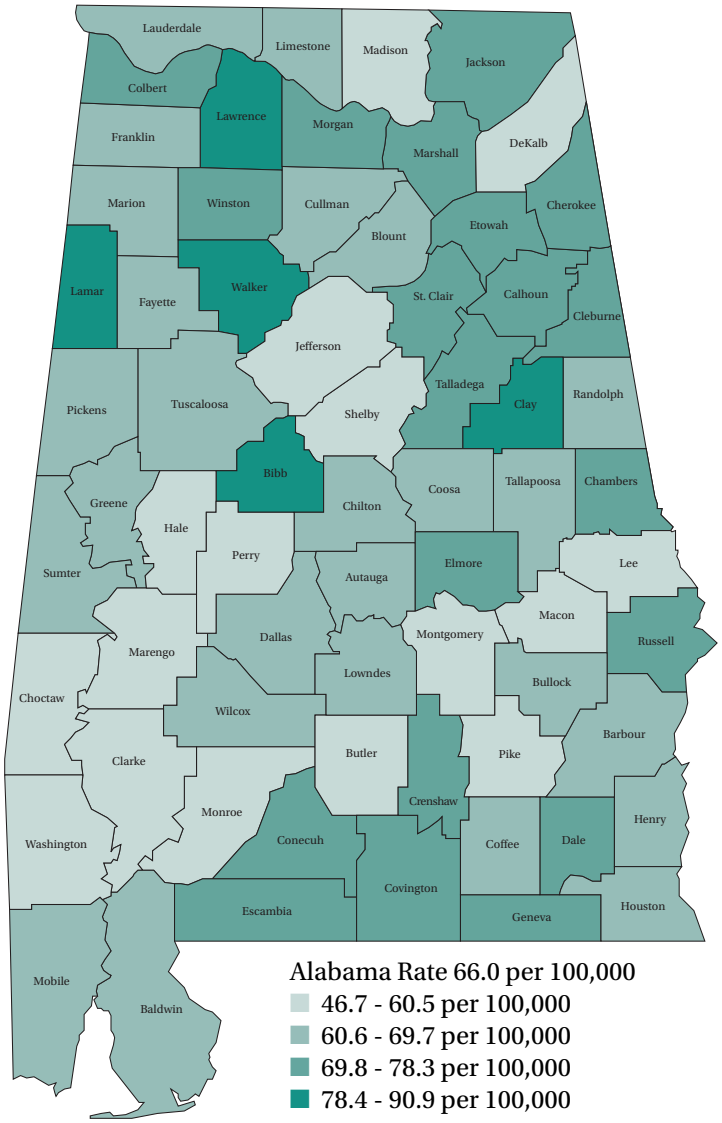
8.8. Explore and address access barriers within the state for implementation of high-quality lung cancer screening programs. (Health Equity)

Measures	Baseline	Goal
Increase utilization of low-dose CT screening (NHIS 2015)	4.5% of adults age 55-80 years received a lung cancer screening based on the most recent guidelines in 2015 (30-pack history/quit in the past 15 years)	7.5%
Reduce percent of current smokers in Alabama (BRFSS)	18.5% (2020)	17.5% (2025)
Increase detection of lung cancer at localized stage (ASCR)	25% (2015-2019)	30% (2021-2025)
Reduce overall mortality rate for lung cancer (ASCR)	46.4 per 100,000 (2015-2019)	44.0 per 100,000 (2021-2025)

Lung Cancer Incidence/Mortality Rates, by Sex and Race, Alabama



Alabama Cancer Incidence Rates, Lung, Males and Females, All Races, 2009-2018



All rates are age-adjusted to the 2000 U.S. (19-age group) standard. Rates are for malignant tumors only except all sites which includes bladder cancer in situ. County groupings were determined using natural breaks (Jenks). Source: Alabama Statewide Cancer Registry, 2022.

Oropharyngeal Cancer

Objective 9: Increase Awareness of the Signs and Symptoms of Oropharyngeal Cancer

Important Facts:

*Signs of oropharyngeal (oral cavity and pharynx) cancers include white or red sores that do not heal on the gums, tongue, or lining of the mouth; a lump or thickening; persistent hoarseness or sore throat; and difficulty swallowing.

*The consequences of late-stage oropharyngeal cancer and its subsequent treatment can lead to impaired speech, eating, swallowing, and devastating facial disfigurement.

Strategic Actions:

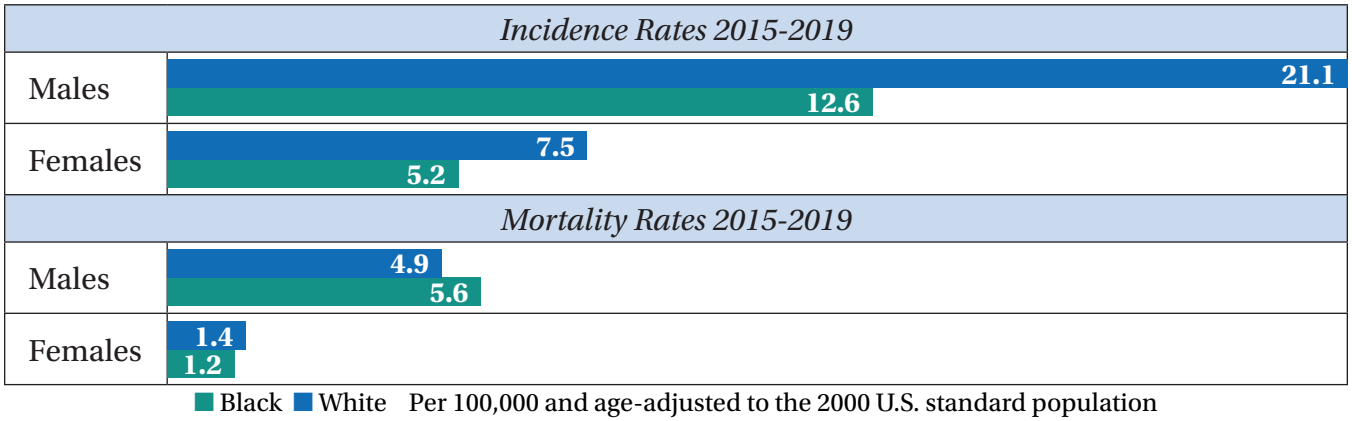
9.1. Conduct an educational campaign about the signs and symptoms of oropharyngeal cancer.

9.2. Support Alabama's "#WATCHYOURMOUTH" oral cancer awareness campaign which encourages a seven-point oropharyngeal cancer self-exam.

9.3. Encourage individuals with symptoms of oropharyngeal cancer to talk to their doctor or dentist.

Measures	Baseline	Goal
Reduce overall incidence rate for oropharyngeal cancer (ASCR)	12.8 per 100,000 (2015-2019)	11.5 per 100,000 in 2024 (2021-2025)

Oropharyngeal Cancer Incidence/Mortality Rates, by Sex and Race, Alabama



TERTIARY PREVENTION

Survivorship

Objective 10: Improve Overall Health of Alabama Cancer Survivors from Diagnosis Onward to Increase Quality of Life

Important Facts:

*Palliative and Supportive Care is a medical subspecialty that utilizes a team-based approach focusing on quality of life and symptom management for those with serious illness and their loved ones.

*An advance directive is a legal document that explains how you want medical decisions about you to be made if you cannot make the decisions yourself. It is meant to help you plan and let others know what kind of care you want.

*Hospice is a special model of care for patients who are in the late phase of an incurable illness. This model of care focuses on improving quality of life while minimizing pain and discomfort.

Strategic Actions:

10.1. Promote the three questions framework for advance care planning utilizing the connections of ADPH to get the message out to both healthcare providers and the public: "What matters now? What brings you strength? Who speaks for you?"

10.2. Create and/or connect to high quality, helpful, informative videos related to topics important for cancer patients, survivors, and loved ones. Topics of interest may include the following: nutrition, depression, cancer and the workplace, chemo brain, communication with healthcare team, social relationships after cancer, mental health, financial concerns, etc.

10.3. Support efforts to provide individualized survivorship care plans for every cancer patient and share resources available.

10.4. Connect with the State Advisory Council on Palliative Care and Quality of Life to work together to promote palliative care by “improving consumer awareness of the positive effect of compassionate palliative care on the quality of life and care for individuals and families living with life-limiting illness” and by “facilitating collaboration among palliative care providers, organizations, institutions, and individuals.”

10.5. Support and improve the integration of palliative care and advance directives as part of cancer care beginning at diagnosis.

10.6. Promote and support systems changes that strengthen timely and appropriate referral to hospice for end-of-life care through partnerships with providers and community members.

10.7 Increase availability, awareness, and utilization of culturally and linguistically diverse and low-literacy cancer treatment information resources.

Clinical Trials

Objective 11: Increase Participation in Cancer Clinical Trials

Important Fact:

*The biggest barrier to advancing treatments for cancer through clinical trials, is the shortage and diversity of individuals who take part. According to ACS, fewer than 5 percent of adults with cancer will participate in drug trials. Approvals for new forms of treatment are delayed due to the low number of participants.

Strategic Actions:

11.1. Promote provision of resources to help individuals make informed decisions about clinical trials.

11.2. Identify, disseminate, and, if needed, develop educational resources on finding clinical trials and clinical trial participation for cancer patients.

11.3. Increase awareness about the importance of diversity in clinical research to ensure that the discoveries, treatments, interventions, and prevention strategies are relevant to those populations.

11.4. Identify, disseminate, and, if needed, develop educational resources aimed at building trust and reducing barriers to clinical trial participation among underserved and minority populations.

Childhood Cancer

Each year in Alabama, 230 children (up to 19 years of age) are diagnosed with cancer and 29 children die from cancer. The three leading causes of childhood cancer are brain and central nervous system tumors, leukemias, and lymphomas. Other prominent types of childhood cancer include cancers of the thyroid, soft tissue, bone, and kidney. The incidence and mortality rates of childhood cancer in Alabama are similar to the rates for the United States as a whole. From 2015 to 2019, there has been a slight decline in both childhood cancer incidence and childhood cancer mortality rates, but this decline was not enough to be statistically significant.

Objective 12: Increase Childhood Cancer Awareness and Improve Quality of Life for Childhood Cancer Survivors and Their Families

Important Facts:

*The majority of cases reported to the ASCR are treated either at Children's Hospital of Alabama or the University of Alabama at Birmingham; treatment options are also available in Huntsville at the St. Jude Affiliate Clinic at Huntsville Hospital and in Mobile at the Mitchell Cancer Institute at the University of South Alabama Children's and Women's Hospital.

*Patients have access to clinical trials through the National Institutes of Health and through Children's Oncology Group.

Strategic Actions:

12.1 Increase awareness of childhood cancer among families, health care professionals, and schools.

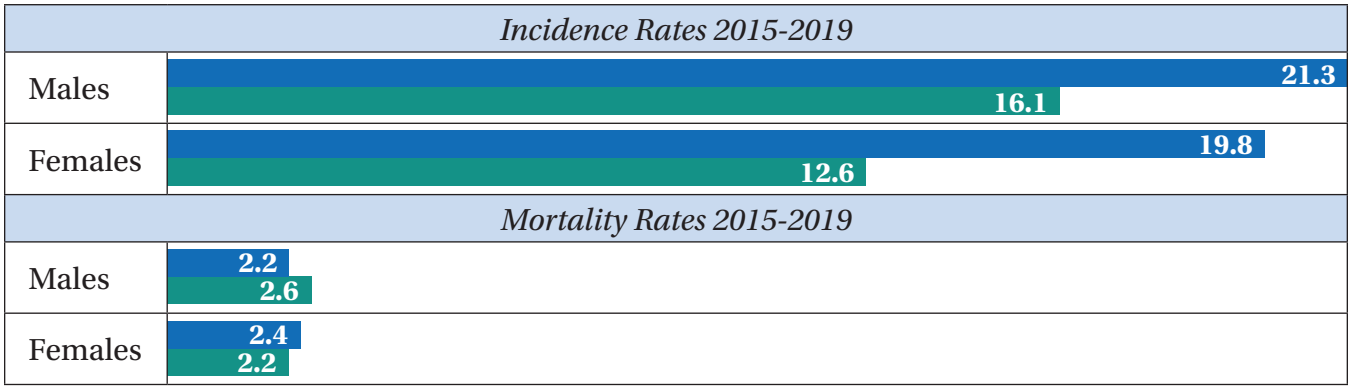
12.2 Develop a resource guide for childhood cancer survivors and their families.

Measures:

1) Develop a survivor's guide for childhood cancer that addresses our strategic actions.

2) Promote the survivor's guide through ACCCC and our partners.

Childhood Cancer Incidence/Mortality Rates, by Sex and Race, Alabama



Black White Per 100,000 and age-adjusted to the 2000 U.S. standard population

GENETIC TESTING

Genetic testing can help people and their healthcare providers understand if their cancer is the result of a genetic abnormality. Knowing if a cancer is hereditary can help with making a treatment plan for a person's cancer. Importantly, genetic testing can also show that a person is at risk for other cancers, and plans can be made to help prevent or lower the risks for those cancers.

Genetic testing can also help people who have never had cancer understand their risk of developing certain cancers. If someone has a harmful genetic abnormality that increases their cancer risk, then a plan can be made to help prevent those cancers or begin screening for them at an early, more easily treatable stage. Reducing the risk of hereditary cancers often involves screening and imaging tests like colonoscopies or magnetic resonance imaging (MRI) at an earlier age and/or more often than for someone at average risk.

Genetic testing can also be important for the whole family. If a person is found to have a harmful genetic difference linked with an increased risk for cancer, each of their biological parents, children, and full siblings would usually have a 50 percent risk to have the same hereditary cancer risk. This information could also be important for extended relatives.

Genetic testing involves taking a small amount of blood or saliva from someone and analyzing it in a lab. Genetic testing is done through a doctor's office and is often covered by health insurance. There may also be financial aid available for those without insurance or who are underinsured. The test results are private and not shared outside of a person's medical team without their permission. Genetic counselors are often available to explain the genetic testing process and the genetic testing results to patients and providers. Genetic counselors can also help decide which genetic test is best based on someone's personal and family histories of cancer.

People should ask their healthcare provider about genetic testing if they:

- Have been diagnosed with cancer at an early age, typically below the age of 50 years.
- Have been diagnosed with certain cancers more likely to have a hereditary cause; for example, pancreatic, ovarian, male breast cancers, or prostate cancer that has spread.
- Have been diagnosed with multiple cancers, for example, breast cancer in both breasts or breast, colon, and uterine cancer in the same person.
- Have a family history of cancer in multiple close relatives.
- Have a family history of a hereditary cancer condition.
- Had genetic testing more than 5 years ago. Genetic testing technology is always improving, and there may be more things to test for than there were in the past.

ADDITIONAL CANCERS OF CONCERN

Gynecologic Cancers

Gynecologic cancer is any cancer that starts in a woman's reproductive organs. These cancers begin in different places within a woman's pelvis, which is the area below the stomach and in between the hip bones. **Uterine cancer,** the most common gynecological cancer, begins in the uterus, the pear-shaped organ in a woman's pelvis where the baby grows when she is pregnant. **Ovarian cancer,** the second most common gynecological cancer, begins in the ovaries, which are located on each side of the uterus. Ovarian cancer causes more deaths than any other gynecological cancer. **Vaginal cancer** begins in the vagina, which is the hollow, tube-like channel between the bottom of the uterus and the outside of the body. **Vulvar cancer** begins in the vulva, the outer part of the female genital organs. Vaginal and vulvar cancers are very rare. Cervical cancer is also a gynecological cancer that is addressed under primary and secondary prevention in this plan. Treatment is most effective when gynecologic cancers are found early.

Risk Factors:
All women are at risk for gynecologic cancers and risk increases with age.

Common Symptoms
Symptoms for gynecological cancer are common for other health conditions. However, symptoms such as bloating for no reason, pelvic pain or pressure that does not go away, feeling too full too fast, or unusual bleeding could be symptoms of a gynecological cancer. Women should learn the symptoms, pay attention to their body, and talk to a doctor if they notice anything unusual that lasts two weeks or longer.

Abnormal vaginal bleeding or discharge is common on all gynecologic cancers except vulvar cancers. Feeling full too quickly or difficulty eating, bloating, and abdominal or back pain are common only for ovarian cancer. Pelvic pain or pressure is common for ovarian and uterine cancers. More frequent or urgent need to urinate and/or constipation are common for ovarian and vaginal cancers. Itching, burning, pain, or tenderness of the vulva and changes in vulva color or skin, such as a rash, sores, or warts, are found only in vulvar cancer.

Prevention/Early Detection
The HPV vaccination prevents up to 90 percent of vaginal and vulvar cancer. The HPV vaccine protects against the types of HPV that most often cause cervical, vaginal, and vulvar cancers.

There are no screening tests for uterine, ovarian, vaginal, or vulvar cancer in women who do not have any signs or symptoms.

Multiple Myeloma

Myeloma, also called multiple myeloma, is a cancer of the plasma cells. Plasma cells are white blood cells that make antibodies that protect us from infection. Multiple myeloma is the most common type of plasma cell tumor that develops in the bone marrow and can spread throughout the body. In myeloma, the cells grow too much, overcrowding normal cells in the bone marrow that makes red blood cells, platelets, and other white blood cells. Myeloma is one of the top 10 cancers in both incidence and mortality for African American males and females.

Risk Factors

Scientists do not understand why some people get myeloma and others do not. Age is the most significant risk factor for developing myeloma. People younger than 45 years old rarely develop the disease. Men are more likely than women to develop myeloma, and it is more than twice as common among Blacks than Whites. In rare cases, exposure to x-rays or other kinds of ionizing radiation may be a risk factor for developing myeloma. Obesity and being overweight are linked with a higher risk of getting multiple myeloma.

Common Symptoms

Sometimes myeloma does not cause any symptoms. It may be found when a blood or urine test is done for another condition and a higher than normal level of protein is found. When more advanced, symptoms of myeloma may include bone pain, especially in the back or ribs; bones that break easily; fever for no known reason; frequent infections; bruising or bleeding easily; trouble breathing; weakness of the arms or legs; and feeling very tired. These symptoms can also come from other conditions. People with any of these symptoms should talk to a physician.

Prevention/Early Detection

With multiple myeloma, few cases are linked to risk factors that can be avoided; therefore, there is no known way to prevent most multiple myeloma from developing. Early detection will depend on a patient communicating signs and symptoms to a primary physician. Tests that examine the blood, bone marrow, and urine are used to diagnose multiple myeloma. After diagnosis, tests are done to find out how much cancer is in the body (called staging). It is important to know the stage to plan treatment.

United States Preventive Services Task Force (USPSTF) Cancer Screening Recommendations for Adults

The USPSTF has outlined cancer preventive services and screenings with an A or B recommendation. These services are now available at no cost through most health insurance plans. The complete list of USPSTF A and B recommendations is available online at www.uspreventiveservicestaskforce.org. All health insurance plans are different; therefore, patients should contact their insurance company for details about medical coverage and out-of-pocket costs including co-payments, deductibles, and coinsurance.

USPSTF Grade Meanings and Suggestions for Practice		
Grade	**Definition**	**Suggestions for Practice**
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

BREAST CANCER

Biennial screening mammography for women age 50 to 74 years. **Grade B Recommendation**

The decision to start screening mammography in women prior to age 50 years should be an individual one, including the patient's value on the potential benefit than the potential harms. **Grade C Recommendation**

Current evidence is insufficient to assess the benefits and harms of digital breast tomosynthesis (DBT) as a primary screening method for breast cancer. **Grade I Statement**

Current evidence is insufficient to assess the balance of benefits and harms of adjunctive screening for breast cancer using breast ultrasonography, MRI, DBT, or other methods in women identified to have dense breasts on an otherwise negative screening mammogram. **Grade I Statement**

Current evidence is insufficient to assess the balance of benefits and harms of screening mammography in women age 75 years or older. **Grade I Statement**

CERVICAL CANCER

Screening for cervical cancer every 3 years with cervical cytology alone in women age 21 to 29 years. For women age 30 to 65 years, the USPSTF recommends screening every 3 years with cervical cytology alone, every 5 years with high-risk human papillomavirus (hrHPV) testing alone, or every 5 years with hrHPV testing in combination with cytology (cotesting). **Grade A Recommendation**

No screening for cervical cancer in women younger than 21 years. **Grade D Recommendation**

No screening for cervical cancer in women who have had a hysterectomy with removal of the cervix and do not have a history of a high-grade precancerous lesion [e.g., cervical intraepithelial neoplasia (CIN) grade 2 or 3] or cervical cancer. **Grade D Recommendation**

No screening for cervical cancer in women older than 65 years who have had adequate prior screening and are not otherwise at high risk for cervical cancer. **Grade D Recommendation**

COLORECTAL CANCER (2021)

Screen for colorectal cancer in all adults age 50 to 75 years. **Grade A Recommendation**

Screen for colorectal cancer in adults age 45 to 49 years. **Grade B Recommendation**

In adults age 76 to 85 years, the net benefit of screening all persons in this age group is small. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the patient's overall health, prior screening history, and preferences. **Grade C Recommendation**

PROSTATE CANCER (2018)

Among men age 55 to 69 years, the decision to undergo periodic PSA-based screening for prostate cancer should be an individual one. Before deciding whether to be screened, men should have an opportunity to discuss the potential benefits and harms of screening with their clinician and to incorporate their values and preferences in the decision. Screening offers a small potential benefit of reducing the chance of death from prostate cancer in some men. However, many men will experience potential harms of screening, including false-positive results that require additional testing and possible prostate biopsy; overdiagnosis and overtreatment; and treatment complications, such as incontinence and erectile dysfunction. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the balance of benefits and harms on the basis of family history, race/ethnicity, comorbid medical conditions, patient values about the benefits and harms of screening and treatment-specific outcomes, and other health needs. Clinicians should not screen men who do not express a preference for screening. **Grade C Recommendation**

Does not recommend PSA-based screening for prostate cancer in men 70 years and older. **Grade D Recommendation**

LUNG CANCER (2021)

Annual screening for lung cancer with low-dose CT in adults age 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery. **Grade B Recommendation**

SKIN CANCER

In asymptomatic adults there is insufficient evidence to assess the balance of benefits and harms of visual skin examination by a clinician to screen for skin cancer in adults. **Grade I Statement**

AMERICAN CANCER SOCIETY SCREENING GUIDELINES

Breast Cancer

These guidelines are for women at **average risk** for breast cancer. For screening purposes, a woman is considered to be at average risk if she does not have a personal history of breast cancer, a strong family history of breast cancer, or a genetic mutation known to increase risk of breast cancer (such as a BRCA gene), and has not had chest radiation therapy before the age of 30.

- **Women between 40 and 44 years** have the option to start screening with a mammogram every year.
- **Women 45 to 54 years** should get mammograms every year.
- **Women 55 years and older** can switch to a mammogram every other year, or they can choose to continue yearly mammograms. Screening should continue if a woman is in good health and is expected to live at least 10 more years.

All women should understand what to expect when getting a mammogram for breast cancer screening – what the test can and cannot do. Clinical breast exams are not recommended for breast cancer screening among average-risk women at any age. Women who are at **high risk** for breast cancer based on certain factors should get a breast MRI and a mammogram every year, typically starting at age 30. This includes women who:

- Have a lifetime risk of breast cancer of about 20 percent to 25 percent or greater, according to risk assessment tools that are based mainly on family history (see below).
- Have a known BRCA1 or BRCA2 gene mutation (based on having had genetic testing).
- Have a first-degree relative (parent, brother, sister, or child) with a BRCA1 or BRCA2 gene mutation and have not had genetic testing themselves.
- Had radiation therapy to the chest when they were between the ages of 10 and 30 years.
- Have Li-Fraumeni syndrome, Cowden syndrome, or Bannayan-Riley-Ruvalcaba syndrome, or have first-degree relatives with one of these syndromes.

The ACS recommends against MRI screening for women whose lifetime risk of breast cancer is less than 15 percent. There is not enough evidence to make a recommendation for or against yearly MRI screening for women who have a higher lifetime risk based on certain factors, such as:

- Having a personal history of breast cancer, ductal carcinoma in situ (DCIS), lobular carcinoma in situ (LCIS), atypical ductal hyperplasia (ADH), or atypical lobular hyperplasia (ALH).
- Having “extremely” or “heterogeneously” dense breasts as seen on a mammogram.

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ACCCC Member Organizations:

ADPH – Alabama Breast and Cervical Cancer Early Detection Program (ABCCEDP)
ADPH – Alabama Comprehensive Cancer Control Program (ACCCP)
ADPH – Alabama Statewide Cancer Registry (ASCR)
ADPH – Colorectal Cancer Program
ADPH – Health Promotion and Chronic Disease
ADPH – Immunization Division
ADPH – Nutrition & Physical Activity
ADPH – Office of Radiation
ADPH – Tobacco Prevention and Control Branch
Alabama Medicaid Agency
Alabama Department of Senior Services
Alabama Hospital Association
American Cancer Society
Baptist Medical Center's Montgomery Cancer Center
Blue Cross Blue Shield of Alabama
Cooper Green Mercy Health Services
East Alabama Medical Center
Jefferson County Department of Health
Joy to Life Foundation
Laura Crandall Brown Foundation
Merck Pharmaceutical Company
Rumpshaker, Inc./Rumpshaker 5K
Susan G. Komen North Central Alabama
Tuskegee University/Cooperative Extension Program
University of Alabama at Birmingham (UAB), School of Nursing
UAB School of Public Health
UAB Comprehensive Cancer Center/Deep South Network
University of South Alabama Mitchell Cancer Institute
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DATA SOURCES

- ASCR is a population-based cancer registry that provides data on cancer burden. It is an information system designed for the collection, management, and analysis of cancer data. The purpose of the registry is to disseminate cancer data to public health and medical professionals, community groups, volunteer agencies, and others interested in cancer prevention and control.
- American Cancer Society. Guideline for Diet and Physical Activity for Cancer Prevention. *CA Cancer J Clin.* 2020; 70 (4): 245-271. Doi: 10.3322/caac.21591.
- Behavioral Risk Factor Surveillance System (BRFSS) is used to monitor risk factor data. It will provide risk factor data by age, race, gender, income, and educational status. In addition, BRFSS data will provide a robust analysis of health disparities at the state level and by public health districts. https://www.cdc.gov/brfss/brfssprevalence/index.html
- The U.S. Preventive Services Task Force is an independent, volunteer panel of national experts in disease prevention and evidence-based medicine. The Task Force works to improve the health of people nationwide by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medications. The Task Force assigns each recommendation a letter (A, B, C, or D grade or an I statement) based on the strength of the evidence and the balance of benefits and harms of a preventive service.
- ImmPRINT is Alabama's statewide electronic immunization registry. The purpose of the registry is to be a reliable source for providing an accurate summary of vaccine histories for all Alabama patients. Equipped with this data, ADPH Immunization staff can identify vaccination rates, practices, and disparities per county, health specialty, and/or patient populations. Public health personnel and officials can better collaborate with healthcare providers, institutions, and the public to educate and improve vaccination rates.

Other Helpful Resources:

American Cancer Society (ACS)

American Childhood Cancer Organization (ACCO)

Centers for Disease Control and Prevention (CDC)

Genetic Testing: Meagan Farmer, MS, CGC, MBA at Ambry Genetics & Jessica Johnson Denton, MS, LCGC at University of Alabama at Birmingham, School of Health Professions, Genetic Counseling Program