

# LOUISIANA

## Comprehensive Cancer Control Plan 2022-2027



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For more information about the Louisiana Cancer Prevention and Control Programs, or to download a copy of this document, please visit our website at [louisianacancer.org](http://louisianacancer.org).

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# Executive Summary

Welcome to the 2022-2027 Louisiana Cancer Control Plan. The plan reflects the work, and input of organizations around the state, and is based on the latest available data and evidence-based practices. We hope it not only deepens your understanding of cancer in our state, but also inspires, informs your efforts, and encourages you to make new connections within the cancer control community.

Louisianans continue to get sick from and die from cancer more than most states. While we have improved relative to other states, there is much work to do--LA has the 6th worst rate of new cancers (NCI/CDC State Cancer Profiles, 2014-2018), and the 7th highest cancer death rate (NCI/CDC State Cancer Profiles, 2015-2019). As in the past, this plan covers cancers for which expert recommendations for prevention are available--breast, cervical and other HPV-related cancers, colorectal, lung and tobacco related cancers, and skin (melanoma)--in order to make the greatest impact.

The plan also takes aim at cancer outcome inequities. It is based on an understanding of the social determinants of health, as well as the need to reach groups at greatest need for appropriate prevention, and clinical services. For example, plan objectives and strategies address that Black men are twice as likely as White women to be diagnosed with colorectal cancer each year--61.9 vs 36.4 per 100,000 (LTR, 2014-2018).

For the first time, the state cancer plan is online only, which allows us to continue updating the plan as new information becomes available. This flexibility is especially important during uncertain times like the current COVID pandemic. This format also allows people to view the plan from anywhere, send it to others, know they have the most up-to-date version, and easily locate the content they need.

In order to make the plan more user-friendly, we also have pulled the strategies together into one place (Table 1 on page 8). Many of them are cross-cutting--they address more than one part of the cancer control continuum, or more than one cancer site. The strategies reflect current and planned cancer control efforts; we do not include strategies for which there is no person or organization to lead. We also pulled together the goals and objectives for easy access in Chapter 1. While the baseline data is the latest available, most is from before the COVID pandemic. We expect post-pandemic data to reveal significant changes in outcomes and utilization of services, and will revise goals and objectives as new data is published.

This is also the first time the plan contains guidance on how to put the plan into action. In the *What you can do* section, you can find recommendations based on your type of organization and for individuals. Please reach out to Nakisha Singleton (nsing5@lsuhsc.edu) LCCCP manager if you would like to learn more about ideas for you or your organization. Please also reach out if you need help using the plan or require additional information.

Thank you for being part of the cancer control community. Working together across sectors, geography, and expertise, we will continue to reduce suffering from cancer in Louisiana.

# Common Abbreviations

<b>ACS</b>	American Cancer Society
<b>ALICE</b>	Asset Limited, Income Constrained, Employed
<b>BRFSS</b>	Behavior Risk Factor Surveillance System
<b>CDC</b>	US Centers for Disease Prevention and Control
<b>CHW</b>	Community health worker
<b>CRC</b>	Colorectal cancer
<b>FIT</b>	Fecal immunochemical test
<b>FQHC</b>	Federally Qualified Health Center
<b>HPV</b>	Human Papilloma Virus
<b>LBCHP</b>	Louisiana Breast and Cervical Health Program
<b>LCCCP</b>	Louisiana Comprehensive Cancer Control Program
<b>LCCRT</b>	Louisiana Colorectal Cancer Roundtable
<b>LCP</b>	Louisiana Cancer Prevention and Control Programs
<b>LDH</b>	Louisiana Department of Health
<b>LGBTQ+</b>	Lesbian, gay, bisexual, transgender, queer (or sometimes questioning), and others
<b>LHCC</b>	Louisiana Healthy Communities Coalition
<b>LTR</b>	Louisiana Tumor Registry
<b>MSI</b>	Microsatellite Instability
<b>NCCCP</b>	National Comprehensive Cancer Control Programs
<b>NCI</b>	National Cancer Institute
<b>NIS-Teen</b>	National Immunization Survey Teen
<b>PSE</b>	Policy, systems, and environmental change
<b>SDOH</b>	Social determinants of health
<b>SNAP</b>	Supplemental Nutrition Assistance Program
<b>TACL</b>	Taking Aim at Cancer in Louisiana
<b>TFL</b>	The Louisiana Campaign for Tobacco Free Living
<b>USPSTF</b>	US Preventive Services Task Force

# Chapter 1. Goals and Objectives

## SNAPSHOT GOAL & OBJECTIVES

### Goal

Reduce cancer incidence, morbidity, and mortality rates in Louisiana and increase quality of life for cancer survivors.

### Overall Incidence and Mortality

- By 2027, decrease overall cancer incidence rate from 482.4 to 479.9/100,000 (LTR, 2014-2018).
- By 2027, decrease overall mortality rate from 176.1 to 173.6/100,000 (LTR, 2014-2018).

### Health Equity/Populations of Focus

- By 2027, decrease incidence rate for all cancers for Black Louisianans from 491.5 to 489/100,000 (LTR, 2014-2018).
- By 2027, decrease mortality rate for all cancers for Black Louisianans from 203.8 to 201.3/100,000 (LTR, 2014-2018).
- By 2027, decrease incidence rate for all cancers for people with low incomes\* from 500.5 to 498/100,000 (LTR, 2018).
- By 2027, decrease mortality rate for all cancers for people with low incomes\* from 173.3 to 170.8/100,000 (LTR, 2014-2018).
- By 2027, decrease incidence rate for all cancers for people in rural areas\*\* from 453.9 to 451.4/100,000 (LTR, 2018).
- By 2027, decrease mortality rate for all cancers for people in rural areas\*\* from 169.7 to 167.2/100,000 (LTR, 2014-2018).
- By 2027, increase cancer screening among people who identify as LBGTQ+ by 10% (Breast 65% to 71%, CRC 59% to 65%, Cervical 55% to 60%, BRFSS, 2020).

# SNAPSHOT GOAL & OBJECTIVES

## Prevention

### Tobacco Control

- By 2027, decrease smoking rate among adults from 18.3% to 15.8% (BRFSS, 2020).
- By 2027, increase the percentage of population in Louisiana protected by a comprehensive smoke-free policy from 27% to 100% (TFL, 2021).

### Obesity

#### Physical Activity

By 2027, increase the percentage of adults, ages 18+ who participate in 150 minutes or more of aerobic physical activity per week from 44.9% to 49.9% (BRFSS, 2019).

#### Healthy Eating

By 2027, increase the percentage of adults 18+ who consumed 1 or more vegetables per day from 74.5% to 79.5% (BRFSS, 2020).

### HPV

- By 2027, increase the number of adolescent females ages 13-15 years who are up to date (UTD) with the HPV vaccination series from 41.4% to 80% (NIS-Teen, 2018).
- By 2027, increase the number of adolescent males ages 13-15 years who are up to date (UTD) with the HPV vaccination series from 39.7% to 80% (NIS-Teen, 2018).

## Early Detection

### Cervical Cancer

By 2027, increase the percentage of women aged 21-65 who have had a cervical cancer screening within the past 3 years from 78.1% to 82% (BRFSS, 2020).



# SNAPSHOT GOAL & OBJECTIVES

## Breast Cancer

- By 2027, increase the percentage of women aged 50-74 years old who have had a mammogram within the past two years from 82.3% to 86.4% (BRFSS, 2020).
- By 2027, increase the percentage of Black females aged 40-49 years old who have had a mammogram within the past two years from 85.2% to 87.7% (BRFSS, 2020).
- By 2027, reduce the percentage of Black females diagnosed with late-stage breast cancer from 34.1% to 32% (BRFSS, 2020).

## Colorectal Cancer

- By 2027, increase the proportion of adults 50 – 75 who have met the USPSTF recommendations for colorectal cancer screening in Louisiana from 73.1% to 74.4% (BRFSS, 2020). \*We may change to 45 when data becomes available.
- By 2027, reduce the colorectal cancer death rate in Louisiana from 16.9 to 8.9/100,000 (LTR, 2014-2018).

## Lung Cancer

- By 2027, reduce the lung cancer death rate from 49.7 to 41/100,000 (LTR, 2014-2018).
- By 2027, increase the proportion of smokers who get screened for lung cancer from 3.3% to 6% (American Lung Association, 2021).

## Prostate Cancer

- By 2027, increase the proportion of black men (40+) who have discussed the advantages of PSA test with their healthcare provider from 24% to 26.5% (BRFSS, 2020).

# SNAPSHOT GOAL & OBJECTIVES

## Treatment & Survivorship

- Increase the proportion of stage-specific cancer survivors who are living 5 years or longer after diagnosis by 2027 (Localized 86.9% to 89.4%, Regional 60.8% to 63.3%, Distant 25.2% to 27.7%, LTR, 2007-2017).
- Decrease the amount of cancer survivors who reported fair to poor health from 30.2% to 28.7% by 2027 (BRFSS, 2020).

## Leadership & Collaboration

Through 2027, maintain Local and Statewide partnerships and coalitions. Baseline 24 partners, 11 coalitions (LCP, 2021).

## Surveillance

By 2027, establish a colorectal cancer-screening registry (TACL).

## Genetics

- By 2027, decrease the percentage of men in Louisiana age 50-75 who report that they have not received 1+ recommended CRC test within the recommended time interval from 30.1% to 25% (BRFSS, 2020).
- By 2027, increase the percentage of CRC patients less than 50 years old who receive MSI testing from 60.6% to 75% (LTR, 2016).

## Environmental

Increase the usage of the LTR Data Visualization site from 3,200 page views per year to 3,280 views per year by 2027 (LTR, 2021).

\* Urban/rural as defined by the rural urban continuum codes developed by the US Department of Agriculture.

(<https://seer.cancer.gov/seerstat/variables/countyattribs/ruralurban.html>)





\*\* Low income defined as median family income (in tens) ACS 2014-2018 < \$50k/year.

\*\*\*Disaster area defined as locations by which Governor or designated chief official declares as disaster zone/s (disaster declaration).

# Chapter 2. Strategies

This plan’s evidence-based strategies are used to reach the goals and objectives outlined in the previous chapter. Table 1 includes all of the strategies we recommend for the next five years. If you are interested in looking at strategies for one particular cancer site, or of a stage in the cancer continuum, review the table of contents to find the appropriate section. Since many strategies address multiple places on the cancer control continuum, impact more than one level, and address more than one cancer site, the table is coded as follows.


## Cancer Control Continuum

-  Prevention
-  Early Detection
-  Treatment/Survivorship
-  Cross Cutting

## Cancer Site(s)

- Breast
- Cervical
- Colorectal (CRC)
- HPV-related
- Tobacco-related

## Impact Level(s)

- Patient
- Community
- Clinical providers (Provider)
- Health Care System (System)
- Public health
- Policy
-  PSE Change Approaches\*
- Workplaces

\*PSE stands for policy, systems and environment. Learn more about PSE change here: <https://action4psechange.org/>.

**Table 1. Strategies**

Strategy	Cancer Continuum	Target	Level	Focus Populations
<p>Address barriers to accessing care for populations of focus, including lack of medical home, coverage for care, food insecurity, education on the importance of screening, and distrust of health system, through community health workers (CHWs)/lay health educators and patient navigators.</p>		<p>Breast HPV-related CRC Tobacco-related</p>	<p>Community Public health Provider Systems</p>	<p>Black Low-income LGBTQ+ Rural Acadiana Survivors of sexual trauma</p>
<p>Conduct cancer education trainings for CHWs. Ensure training focuses in lived experiences around population of focus.</p>		<p>Breast HPV-related CRC</p>	<p>Community Public health Provider Systems</p>	<p>Black Low-income</p>
<p>Facilitate follow-up for abnormal screening results, through patient navigation and referral coordination.</p>		<p>Breast Cervical CRC Lung</p>	<p>Provider Systems</p>	<p>All</p>
<p>Work with primary care providers and health systems to facilitate quality improvement initiatives to increase HPV vaccination and cancer early detection according to USTPF recommendations.</p>		<p>Breast HPV-related CRC Tobacco-related</p>	<p>Provider Systems</p>	<p>All</p>
<p>Train all staff in providing culturally competent service to all patients, their families, and their chosen support person(s) throughout the cancer care continuum.</p>		<p>Breast HPV-related CRC Tobacco-related</p>	<p>Community Provider Systems</p>	<p>Black Low-income LGBTQ+ Survivors of sexual trauma</p>

Strategy	Cancer Continuum	Target	Level	Focus Populations
<p>Educate partners (clinics/health systems, worksites, local coalitions) and the community about the availability of affordable or no cost prevention and screening services, including through the Louisiana Breast &amp; Cervical Health Program.</p>		<p>Breast HPV-related CRC Tobacco-related</p>	<p>Patient Provider Systems</p>	<p>Black Low-income LGBTQ+ Survivors of sexual trauma</p>
<p>Implement tailored media campaigns to promote prevention and screening for populations of focus.</p>		<p>Breast HPV-related CRC Tobacco-related</p>	<p>Community</p>	<p>Black Low-income LGBTQ+ Rural Acadiana Survivors of sexual trauma</p>
<p>Connect high-risk patients to genetic counseling.</p>		<p>Breast Cervical CRC</p>	<p>Community Provider Systems</p>	<p>Acadiana</p>
<p>Conduct landscape analysis of genetic counseling in the state.</p>		<p>Breast Cervical CRC</p>	<p>Provider Systems</p>	<p>All</p>
<p>Increase HPV vaccination and screening opportunities outside of regular clinical hours and locations, including mobile screening, telehealth, alternative community-based locations, and non-traditional hours.</p>		<p>Breast HPV-related CRC</p>	<p>Community Patient Systems</p>	<p>Rural Low-income</p>

Strategy	Cancer Continuum	Target	Level	Focus Populations
Educate clinicians on changes to cancer screening and HPV vaccination guidelines.	ED	Breast HPV-related CRC Lung	Providers Systems	All
Educate clinicians on the importance of MSI testing before treatment for colorectal cancer.	T/S	CRC	Providers Systems	Rural Low-income Acadiana
Develop and disseminate best practices for providing care across the cancer continuum to people in disaster areas.	ED T/S	All	Community Patient Providers Systems	All
Increase appropriate use of telehealth and mobile screening services.	ED T/S	All	Patient Providers Systems	Low-income Rural
Utilize cancer data from Louisiana Tumor Registry and other sources to target interventions and populations to advance health equity and reduce cancer disparities.	CC	All	Public health Providers Systems	All
Train healthcare providers on sensitive approaches and modified procedures to increase cancer screening by people avoiding health care due to experiences of sexual trauma.	ED	All	Patient Providers System	Survivors of sexual trauma

Strategy	Cancer Continuum	Target	Level	Focus Populations
Increase access to healthy foods through community-based programs (Louisiana Healthy Community Coalition [LHCC] mini grants, CHWs and patient navigators).		All	Community Patients 	Rural Low-income
Support efforts that increase the access to food, physical activity and mental health resources for people with cancer and cancer survivors.		All	Patients 	Low-income
Support the expansion of farmer's market SNAP benefits across the state.		All	Community	Low-income
Disseminate best practices for post treatment care among providers and healthcare organizations (through TACL, journals, continuing education).		All	Patients Providers Systems 	All
Convene partnerships, such as Health Communities Coalitions, Taking Aim at Cancer in Louisiana, and Louisiana Colorectal Cancer Roundtable, to develop and implement interventions and address policy needs.		All	Community Policy makers 	All

Strategy	Cancer Continuum	Target	Level	Focus Populations
<p>Educate lawmakers on the benefits of strategies to reduce smoking, second-hand smoke, and the use of nicotine products and to increase clean air.</p>		<p>All</p>	<p>Community Policy makers</p>	<p>All</p>
<p>Support programming that educates the public, particularly the youth, around the dangers of tobacco and vaping products. Connect with TFL for resources and programs.</p>		<p>All</p>	<p>Community</p>	<p>All</p>
<p>Promote Well-Ahead Louisiana’s WellSpot Designation Program to facilities, particularly worksites and schools.</p>		<p>All</p>	<p>Schools Workplaces Policy makers </p>	<p>All</p>
<p>Implement programs and policies at organizational and community levels that make tobacco-free living the norm (cessation programs and insurance coverage, community grants, and public awareness campaigns).</p>		<p>Tobacco use</p>	<p>Public health Workplaces Policy makers </p>	<p>All</p>



# Chapter 3. Comprehensive Cancer Control and Planning

The Louisiana Comprehensive Cancer Control Program (LCCCP) provides ongoing cancer surveillance, partnership development, and support for program development and implementation. The statewide cancer plan is a product of LCCCP and its partner organizations. LCCCP developed this plan in collaboration with the Louisiana Healthy Communities Coalition (LHCC) and numerous stakeholders.

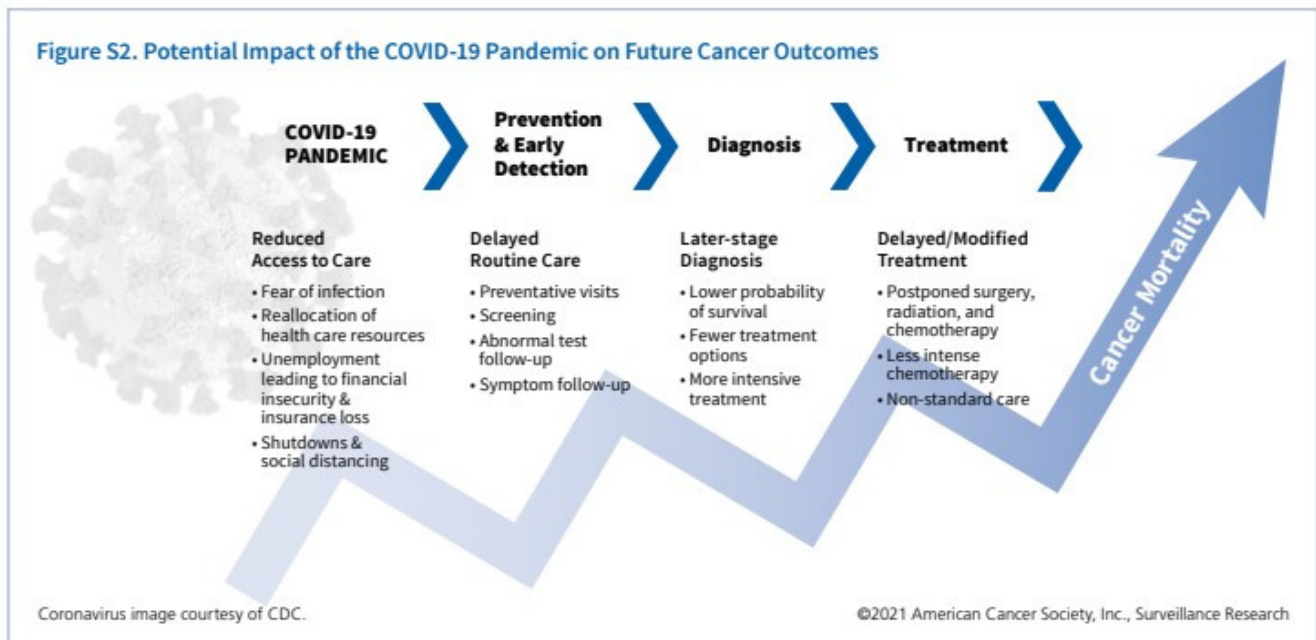
LCCCP is administered through Louisiana State University Health Sciences Center New Orleans within the School of Public Health. It is the planning and partnership component of the Louisiana Cancer Prevention and Control Programs (LCP). LCCCP is part of the Centers for Disease Control and Prevention (CDC)'s National Comprehensive Cancer Control Programs (NCCCP).

This plan both reflects current cancer control efforts in our state and serves as a guide for future work. LCCCP will continue to work with the cancer control community over the next five years to evaluate and update the plan.

## COVID-19 Pandemic

Loss of employment and related health insurance and other factors during the pandemic led to decreased access to care across the cancer care continuum as seen in Figure 1 below.

**Figure 1. Impact of COVID 19 on the Cancer Care Continuum**



For example, the pandemic caused delays in screening as a result of people not visiting providers to limit physical contact with others, and the overtaxed health care system. However, screening rates appear to be rebounding.

Fortunately, the COVID pandemic provided some helpful lessons that we incorporate in this plan.

- People who use telehealth have higher screening rates (Chen et al., 2021).
- At-home screening methods, like FIT or Cologuard for colorectal cancer, are important alternatives to in-person screening when community transmission is high, or patients fear going in for care.

Both of these strategies also help reduce disparities in access for many of the groups at highest risk for suffering and dying from cancer.

We recognize there are lags in reporting and dissemination of cancer data, and this plan is based on pre-COVID data. When COVID era data (2020-2021) becomes available, we expect to see declines in screening, increase in late-stage diagnoses, and increased mortality. Since this is a five-year plan, we are choosing to base our goals and objectives on the assumption that by 2027, we will recover from lost progress due to COVID, and we will see gains when we compare measures to pre-COVID data. However, the goals, objectives and strategies of this plan will be monitored and evaluated annually to see if they need updating. These updates will reflect new data from the COVID pandemic. In addition, they will reflect changes in external factors, as well as new resources and evidence.

# Chapter 4. Louisiana Cancer Burden and Disparities

## Leading Cancers

Nearly 26,000 Louisianans are diagnosed with an invasive form of cancer each year. The bar chart in Figure 2 below lists the ten most common cancers in Louisiana by incidence rate. The vertical bars reflect the US rates. You can also find the average number of new cases each year next to the incidence rates (LTR, 2014-2018). For many of these cancers, Louisiana's incidence rate exceeds the US. The exceptions are female breast, uterine, non-Hodgkin's lymphoma, melanoma of the skin, and bladder cancers.

**Figure 2. Cancer Incidence in Louisiana: 2014-2018**

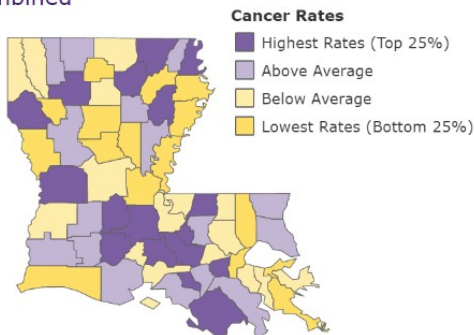
### Cancer Incidence in Louisiana: 2014-2018

All Cancers, Both Sexes, All Races

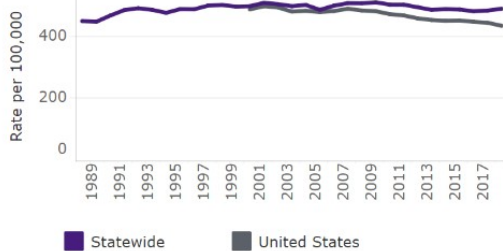
**482.4 per 100k**  
Cases Diagnosed per 100k people (Incidence Rate)

**25,874**  
Cases Diagnosed per Year, on Average

#### Cancer Incidence Rates for All Cancers Combined



#### Annual Changes from 1988 to 2018 Cancer Incidence Rates



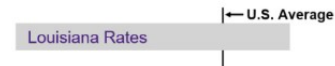
#### Most Common Cancers in Louisiana

Cancer Type	Rate	# of Cancers Diagnosed/Year
Prostate	134.7	3,577
Breast (Female)	127.4	3,568
Lung and Bronchus	64.6	3,537
Colon and Rectum	44.9	2,390
Kidney and Renal Pelvis	22.2	1,186
Corpus and Uterus, NOS	20.8	613
Non-Hodgkin Lymphoma	19.0	988
Melanoma of the skin	18.2	930
Urinary Bladder	18.0	959
Thyroid	14.8	719

Rate # of Cancers Diagnosed/Year

**Notes:**

These data represent all cancer cases and deaths in Louisiana from 2014-2018 combined, except in the annual trends chart. Rates are the number of cases or deaths per 100,000 people and are age-adjusted to the 2000 U.S. standard population. Annual U.S. incidence rates are only available after 2000. For data on specific types of cancer, see the 'Types of Cancer' tab.



**Figure 3. Cancer Mortality in Louisiana: 2014-2018**

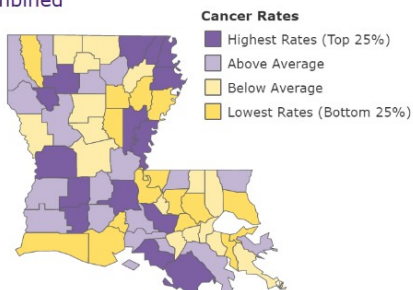
### Cancer Mortality in Louisiana: 2014-2018

All Cancers, Both Sexes, All Races

**176.1 per 100k**  
Deaths per 100k people (Mortality Rate)

**9,379**  
Deaths per Year, on Average

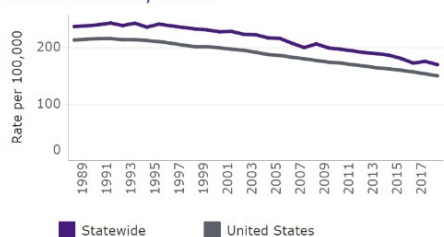
#### Cancer Mortality Rates for All Cancers Combined



#### Most Common Cancers in Louisiana

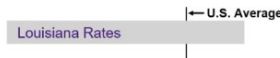
Lung and Bronchus	47.5	2,569
Breast (Female)	22.8	658
Prostate	20.5	428
Colon and Rectum	16.4	872
Pancreas	12.6	673
Liver and Intrahepatic Bile Duct	8.7	499
Leukemia	6.4	326
Ovary	6.2	182
Non-Hodgkin Lymphoma	5.7	294
Corpus and Uterus, NOS	4.7	141

#### Annual Changes from 1988 to 2018 Cancer Mortality Rates



**Notes:**

These data represent all cancer cases and deaths in Louisiana from 2014-2018 combined, except in the annual trends chart. Rates are the number of cases or deaths per 100,000 people and are age-adjusted to the 2000 U.S. standard population. Annual U.S. incidence rates are only available after 2000. For data on specific types of cancer, see the 'Types of Cancer' tab.



Cancer mortality rates (death rates) for Louisiana can be found in Figure 3 above. Over 9,300 Louisianans die from cancer each year. The Louisiana death rate exceeds that of the US (vertical black line) for almost all of these cancers, with exception of ovarian and uterine cancers, which are slightly lower. Over 2,500 of these deaths are attributed to lung cancer. While we have much work to do, mortality rates have been decreasing steadily over the last 20+ years.

This plan will focus on cancers for which there are population and/or evidence-based prevention and early detection guidelines that lead to improved outcomes:

- Breast;
- Colorectal;
- Cervical and other HPV-related cancers;
- Lung and tobacco related cancers; and
- Skin cancer (melanoma).

Although prostate cancer has the highest incidence rates of all cancers in Louisiana, the US Preventative Services Task Force (USPSTF) does not recommend routine, population-based screening for prostate cancer at this time. Cancers in Figures 2 and 3 that have no associated USPSTF recommendations for screening and early detection, including non-Hodgkin's lymphoma, leukemia, pancreatic, kidney/renal, and thyroid, uterine, liver, and ovarian, are not specifically addressed in this plan. However, since people may reduce their risk of many cancers through maintaining a healthy weight, better nutrition, more physical activity, and not using tobacco, these risk factors are addressed.

## Health Disparities

CDC defines health disparity as “a type of difference in health that is closely linked with social or economic disadvantage. Health disparities negatively affect groups of people who have systematically experienced greater social or economic obstacles to health, including poverty; unsafe neighborhoods without adequate transportation or access to healthy food; language barriers; poorly funded and resourced schools; racism and other forms of discrimination; and health care provider shortages. These obstacles stem from characteristics historically linked to discrimination or exclusion based on characteristics such as race or ethnicity, socioeconomic status, disability, sexual orientation, and many other factors” (CDC, 2021).

When compared to the rest of the US, Louisiana fairs poorly in cancer and other health outcomes. Our residents have the seventh highest rate of death from cancer in the US (NCI/CDC, 2015-2019). The social determinants of health— “the conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks”—are at the core of the sickness and death from cancer we experience (see Figure 4). These factors have a larger impact on health outcomes than health care services.

**Figure 4. Social Determinants of Health (KFF, 2018)**

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education		Stress	
Support	Walkability				
	Zip code / geography				

**Health Outcomes**  
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations



Louisiana ranks worst in the US on the ALICE index, which is based on the minimum amount of funds necessary to live and work in the current economy. One in two households in Louisiana (51%) does not earn enough to support a basic household budget: housing, childcare, food, transportation, technology, and health costs (ALICE, 2019).

Our plan acknowledges Louisiana is worst in the US for social economic indicators and poverty according to America's Health Rankings, and centers this fact in its design and strategies, which go beyond the health system. Although, Louisiana has improved access to care with the expansion of Medicaid, 14.8% of Louisianans report avoiding health care because of cost. In addition, only 20% of Louisianans have access to neighborhood amenities conducive to good health, far below the US average of 37.4% and the area with the best access, Washington, DC at 70.9% (America's Health Rankings, 2021).

Within Louisiana, the cancer disparities are many and large.

- Black men are twice as likely as White women to be diagnosed with colorectal cancer each year (63.2 vs 36.1/100,000) (LTR, 2014-2018).
- Black women in Louisiana are more likely to be diagnosed at later stage for breast cancer than White women. Late-stage diagnosis means more treatment, and a lower chance of survival (LTR, 2014 -2018).
- HPV vaccination rates are lower among adolescents who are White, and live in rural areas (National Immunization Survey, 2015-2019).
- The prostate cancer mortality rate for Black men is twice the rate for White men—34.85 vs, 16.7/100,000 (LTR, 2014-2018).
- White Louisianans have higher five-year survival rates than Black Louisianans (64.7 vs. 58.8/100,000) (LTR, 2014-2018).

Visit the Louisiana Tumor Registry's interactive data visualizations at <https://sph.lsuhsu.edu/louisiana-tumor-registry/data-usestatistics/louisiana-data-interactive-statistics/> to take a deeper dive into the cancer statistics of our state.

## **Health Equity**

The underlying theme of our state cancer plan continues to be health equity. We must close the gap between sickness and outcomes caused by the social determinants of health. Without explicitly focusing on these gaps, we may improve outcomes for all without eliminating the difference in outcomes based on ethnicity, gender, income, geographic location, and other risk factors in our state.

For purposes of planning, we will be using the CDC’s definition of health equity. Health equity is when every person has the opportunity to attain their “full health potential” regardless of social position or other socially determined circumstances” (CDC, 2021). Health equity objectives are in Table 2 below.

## **Populations of Focus**

The plan addresses persistent health inequities in our state. In Louisiana, as in the rest of the US, social determinants of health, discrimination, and institutional biases related race, gender, geography and sexual orientation drive these inequities. In particular, the plan focuses on decreasing incidence, severity of illness, and death for the following populations.

### Black Louisianans

A third (33%) of LA’s residents self-identify as Black or African-American (US Census, 2021). Given the large population of Black Louisianans, and the ethnicity-based disparities within our state, reaching this group continues to be the highest priority.

### Low-Income Residents

People who live in poverty are more likely to die of cancer than others. Louisiana has the second highest poverty rate in the US, 19% (US Census, 2019). Half the households do not earn enough to cover basic expenses (ALICE, 2019). Low income in this plan is defined as median family income (in tens) ACS 2014-2018 < \$50k/year.

### People Rarely or Never Screened for Cervical, Breast or Colorectal Cancer

This group has highest mortality rates in the general population. CDC defines women who are rarely or never screened as a priority population for the National Breast and Cervical Cancer Early Detection Program (CDC, 2014).

### Rural Residents

Just over a quarter of Louisianans (1.2 million) live in rural areas, and have poor access to primary and specialty care, as well as other risk factors that lead to cancer outcomes. There is a persistent and wide gap in cancer mortality rates between urban vs. rural LA (Feeding Louisiana, 2020). In terms of this plan, urban/rural as defined by the rural urban continuum codes developed by the US Department of Agriculture (<https://seer.cancer.gov/seerstat/variables/countyattribs/ruralurban.html>).

### Acadians (Cajuns)

The majority of Acadians live in 13-parish area with elevated CRC rates with evidence of a genetic cause (Lynch Syndrome) stemming from a founder's effect for the descents of people who immigrated from France via Nova Scotia in the late 1700s (Karlitz 2014, Karlitz 2021). Polyps related to Lynch syndrome are harder to detect (Mayo Clinic, 2021), and cancer onset is at younger age (40-60) than the general population (67-71). People with this genetic trait should receive early and more frequent screening (Colorectal Cancer Alliance, 2021).

### Current and Former Smokers

USPTF recommends annual low dose computed tomography (CT scan) screening for people aged 50 to 80 with a 20 pack-year smoking history, and who smoke or quit within the past 15 years. Louisiana has the 12th highest smoking rate in the US (America's Health Rankings, 2021).

### People Who Identify as LGBTQ+

People who identify as LGBTQ+ continue to be underserved for cancer screening. Examining BRFSS 2020 data by sexual orientation revealed that participants identifying as "gay/lesbian", "bisexual", "something else", or "I don't know the answer" collectively participated in cancer screening at rates much lower than the state average. For breast screening, 65% of this group reported that they had met USPSTF recommendations as compared to 70% statewide. However, for CRC it drops to 59% vs. 73% for the state, and for cervical it drops to a dismal 55% vs. 78% for the state (BRFSS, 2020).

### Survivors of Sexual Assault

Numerous studies have documented that women who have experienced sexual trauma are much less likely to adhere to cervical cancer screening recommendations than women who do not report sexual trauma. According to the CDC, one in three women have experienced sexual violence in their lifetime, making this a large group that is potentially under screened (CDC, 2021).



### People in Natural Disaster Areas

We will continue to help people in cancer treatment prepare for hurricanes and other natural disasters, as well as work together as a state to help with continuity of care in the aftermath. We also target people with abnormal screening results to make sure they get the needed follow-up. The COVID epidemic is a new kind of natural disaster that impacts cancer patients, as well as access to routine screening. An official disaster area is defined as locations by which Governor or designated chief official declares as disaster zone/s (disaster declaration).

**Table 2. Health Equity Objectives**

<b>Objectives</b>	<b>Baseline</b>	<b>Target (2027)</b>	<b>Source</b>
Decrease incidence rate for all cancers for Black Louisianans.	491.5	489.0*	(LTR, 2014-2018)
Decrease mortality rate for all cancers for Black Louisianans.	203.8	201.3	(LTR, 2014-2018)
Decrease incidence rate for all cancers for people with low incomes.	500.5	498.0*	(LTR, 2018)
Decrease mortality rate for all cancers for people with low incomes.	173.3	170.8*	(LTR, 2014-2018)
Decrease incidence rate for all cancers for people in rural areas.	453.9	451.4*	(LTR, 2018)
Decrease mortality rate for all cancers for people in rural areas.	169.7	167.2*	(LTR, 2018)
Increase cancer screening among people who identify as LGBTQ+ by 10%.	Breast: 65% CRC: 59% Cervical: 55%	Breast: 71% CRC: 65% Cervical: 60%	(BRFSS, 2020)

\*Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population.

## Health Equity Strategies

- Address barriers to accessing care for populations of focus through community health workers (CHWs), lay health educators and patient navigators, including lack of medical home, coverage for care, food insecurity, education on the importance of screening, and distrust of health system.
- Conduct cancer education trainings for CHWs. Ensure training focuses on lived experiences around population of focus.
- Train all staff in providing culturally competent service to all patients, their families, and their chosen support person(s) throughout the cancer care continuum.
- Educate partners (clinics/health systems, worksites, local coalitions) and the community about the availability of affordable or no cost prevention and screening services, including through the Louisiana Breast & Cervical Health Program.
- Implement tailored media campaigns to promote prevention and screening for populations of focus.
- Connect high-risk patients to genetic counseling (Acadiana Region).
- Educate clinicians on the importance of MSI testing before treatment for colorectal cancer (Rural areas, Acadiana).
- Increase HPV vaccination and screening opportunities outside of regular clinical hours and locations, including mobile screening, telehealth, alternative community-based locations, and non-traditional hours.
- Increase appropriate use of telehealth and mobile screening services.
- Utilize cancer data from Louisiana Tumor Registry and other sources to target interventions and populations to advance health equity and reduce cancer disparities.
- Train healthcare providers on sensitive approaches and modified procedures to increase cancer screening by people avoiding procedures due to experiences of sexual trauma.
- Increase access to healthy foods through community-based programs (LHCCs mini grants, CHWs, and patient navigators).
- Support efforts that increase the access to food, physical activity and mental health resources for people with cancer and cancer survivors.
- Support the expansion of farmer's market SNAP benefits across the state.

# Chapter 5. Prevention

In this plan we will focus on prevention around tobacco control, obesity and HPV vaccination. Many cancers can be prevented by a healthy lifestyle and access to appropriate medical care. A 2017 NCI study found “42% of all incident cancer cases and almost one-half of all cancer deaths” were associated with risk factors that can be changed (Islami et al. 2017):

- Cigarette use and secondhand smoke;
- Excess body weight;
- Alcohol intake;
- Poor diet;
- Physical inactivity;
- UV radiation from the sun and tanning beds; and
- Infections.
  - HPV (cervical, head and neck, anal, vaginal, penile)
  - H. pylori (stomach cancer)
  - Hepatitis B and C (liver cancer)
  - HIV (non-Hodgkins lymphoma)



Tobacco use is the leading cause of preventable death in the United States. According to ACS, smoking is the cause of 80% of lung cancer deaths nationwide (ACS, 2021).

- The smoking rate in LA is 22% compared with the national rate of 15% (American Lung Association, 2019).
- 8.4% of LA high school students smoked cigarettes on at least one day in the past 30 days. Nationally, the rate was 6.0% (Youth Risk Behavioral Surveillance System, 2019).
- The LA mortality rates of tobacco-related cancers are significantly higher than the U.S. for all race and sex groups. Among all ethnicities, Black people are more likely to die of tobacco-related cancers in the US than their White counterparts (LTR, 2014-2018).
- Louisiana has the 37th lowest cigarette tax in the U.S--\$1.08 per pack (enacted April 2016) vs. the national average of \$1.81. The highest tax is \$4.50 in the District of Columbia, and the lowest is Missouri at \$0.17 (Truth Initiative, 2020).

- Thirty (30) LA municipalities have smoke-free ordinances. This represents protection for only 27% of Louisiana residents (Louisiana Campaign for Tobacco-Free Living, 2021).

View LTR Risk Factor Dashboard to learn more about tobacco associated cancers.

## **Obesity**

According to the CDC, being overweight or obese is associated with developing 13 types of cancers (CDC, 2021).

- Louisiana has one of the highest rates of obesity in the US with more than 35% of adults with obesity compared with the national rate of 20% (BRFSS, 2018).
- The mortality rates for obesity-related cancers are significantly higher in Louisiana than in the U.S. for the four major race-sex groups (LTR, 2014-2018).

To learn more about obesity associated cancers in Louisiana view the LTR Risk Factor Dashboard.

## **HPV Vaccination**

Since 2014, there has been an effective, FDA approved vaccine to prevent HPV infection. The Advisory Committee on Immunization Practices (ACIP) and CDC recommend routine HPV vaccination of girls and boys ages 11-12, which can be given as young as age 9, as well as catch-up vaccination for people up to age 26. For adults over 27 years of age, routine vaccination is not recommended, but vaccination should be discussed with health care providers to weigh the potential benefits and harms. In 2020, there was a considerable drop in HPV vaccination due to the COVID pandemic (Bhavini, 2021).

- According to The Louisiana Cancer Registry (LTR, 2013-2017), 742 Louisianans are diagnosed with HPV related cancers annually.
- Louisiana's HPV vaccination rate is higher than US's: 48.3% vs. 47.5% (NIS, 2015-2019).
- According to the 2015-2019 National Immunization Survey (NIS) in Louisiana, vaccination rates are lower among adolescents who identify as White, live in rural areas, and live at or above the federal poverty level. Being uninsured also is correlated with lower vaccination status.

Table 3 below contains the plan's objectives for cancer prevention.

**Table 3. Prevention Objectives**

Objectives	Baseline	Target (2027)	Source
<b>Tobacco Control</b>			
Decrease smoking rate among adults.	18.3%	15.8 %	(BRFSS, 2020)
Increase the percentage of population in LA protected by a comprehensive smoke-free policy.	27%	100%	(TFL, 2021)
<b>Obesity-Physical Activity</b>			
Increase the percentage of adults, ages 18+ who participate in 150 minutes or more in aerobic, physical activity per week.	44.9%	49.9%	(BRFSS, 2019)
<b>Obesity-Healthy Eating</b>			
Increase the percentage of adults 18+ who consumed 1 or more vegetables per day.	74.5%	79.5%	(BRFSS, 2020)
<b>HPV</b>			
Increase the number of adolescent females ages 13-15 who are UTD with the HPV vaccination series.	41.4%	80%	(NIS-Teen, 2018)
Increase the number of adolescent males ages 13-15 years who are UTD with the HPV vaccination series.	39.7%	80%	(NIS-Teen, 2018)

## Prevention Strategies

- Address barriers to accessing care for populations of focus through community health workers/lay health educators and patient navigators, including lack of medical home, coverage for care, food insecurity, education on the importance of screening, and distrust of health system.
- Work with primary care providers and health systems to facilitate quality improvement initiatives to increase HPV vaccination and cancer early detection according to USTPF recommendations.

## Prevention Strategies

- Train all staff in providing culturally competent service to all patients, their families, and their chosen support person(s) throughout the cancer care continuum.
- Educate partners (ex. clinics/health systems, worksites, local coalitions) and the community about the availability of affordable or no cost prevention and screening services, including through the Louisiana Breast & Cervical Health Program.
- Implement tailored media campaigns to promote prevention and screening for populations of focus.
- Increase HPV vaccination and screening opportunities outside of regular clinical hours and locations, including mobile screening, telehealth, alternative community-based locations, and non-traditional hours.
- Utilize cancer data from Louisiana Tumor Registry and other sources to target interventions and populations to advance health equity and reduce cancer disparities.
- Increase access to healthy foods through community-based programs (LHCCs mini grants, CHWs and patient navigators).
- Support the expansion of Farmers Market SNAP benefits across the state.
- Convene partnerships, such as Healthy Communities Coalition, Taking Aim at Cancer in Louisiana, and Louisiana Colorectal Cancer Roundtable, to develop and implement interventions and address policy needs.
- Educate lawmakers on the benefits of strategies to reduce smoking, second-hand smoke, and the use of nicotine products and to increase clean air.
- Support programming that educates the public, particularly the youth, around the dangers of tobacco and vaping products. Connect with TFL for resources and programs.
- Promote Well-Ahead Louisiana's WellSpot Designation Program to facilities, particularly worksites and schools.
- Implement programs and policies at organizational and community levels that make tobacco-free living the norm (cessation programs and insurance coverage, community grants, and public awareness campaigns).

# Chapter 6. Early Detection

We can decrease the incidence and suffering from cancer by finding and removing potential cancers, and identifying cancers as early as possible. With appropriate and timely early detection, patients need less treatment, and live longer.

Early detection is more than screening. The process continues with follow-up diagnostics for those with abnormal screening results, such as the removal and biopsies of precancerous colorectal polyps. For patients who ultimately are not diagnosed with cancer, it ends with a return to routine screening, though they may have different/more frequent screening in the future. For patients with cancer diagnoses, early detection ends when they begin treatment.

Since the Affordable Care Act requires that all USPSTF recommended cancer early detection services (grade A or B) must be provided at no-cost by insurance plans, and CDC, which funds this planning process, follows their recommendation, they are important to this plan. We recognize that the American Cancer Society and professional organizations also provide evidence-based recommendations that impact what insurance companies will cover. We are not endorsing any organization over another. See Table 4 below for USPSTF cancer early detection recommendations, and Table 5 for early detection plan objectives.

**Table 4. USPSTF Recommendations**

Topic	Description	Grade/ Recommendation date
Breast Cancer: Screening: women aged 50 to 74 years	The USPSTF recommends biennial screening mammography for women aged 50 to 74 years.	B/January 2016
Cervical Cancer: Screening: women aged 21 to 65 years	The USPSTF recommends screening for cervical cancer every 3 years with cervical cytology alone in women aged 21 to 29 years. For women aged 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). See the Clinical Considerations section for the relative benefits and harms of alternative screening strategies for women 21 years or older.	A/August 2018

Topic	Description	Grade/ Recommendation date
Colorectal Cancer: Screening: adults aged 45 to 49 years	<p>The USPSTF recommends screening for colorectal cancer in adults aged 45 to 49 years. Recommended intervals for colorectal cancer screening tests include</p> <ul style="list-style-type: none"> <li>• High-sensitivity gFOBT or FIT every year</li> <li>• sDNA-FIT every 1 to 3 years</li> <li>• CT colonography every 5 years</li> <li>• Flexible sigmoidoscopy every 5 years</li> <li>• Flexible sigmoidoscopy every 10 years + FIT every year</li> <li>• Colonoscopy screening every 10 years</li> </ul>	B/May2021
Colorectal Cancer: Screening: adults aged 50 to 75 years	<p>The USPSTF recommends screening for colorectal cancer in all adults aged 50 to 75 years. Recommended intervals for colorectal cancer screening tests include</p> <ul style="list-style-type: none"> <li>• High-sensitivity gFOBT or FIT every year</li> <li>• sDNA-FIT every 1 to 3 years</li> <li>• CT colonography every 5 years</li> <li>• Flexible sigmoidoscopy every 5 years</li> <li>• Flexible sigmoidoscopy every 10 years + FIT every year</li> <li>• Colonoscopy screening every 10 years.</li> </ul>	A/May 2021
Lung Cancer: Screening: adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years	<p>The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 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*</p>	B/March 2021



**Table 5. Early Detection Objectives**

<b>Objectives</b>	<b>Baseline</b>	<b>Target (2027)</b>	<b>Source</b>
<b>Cervical Cancer</b>			
Increase the percentage of women aged 21-65 who have had a cervical cancer screening within the past three years.	78.1%	82%	(BRFSS, 2020)
<b>Breast Cancer</b>			
Increase the percentage of women aged 50-74 years old who have had a mammogram within the past two years.	82.3%	86.4%	(BRFSS, 2020)
Increase the percentage of Black females aged 40-49 years old who have had a mammogram within the past two years.	85.2%	87.7%	(BRFSS, 2020)
Reduce the percentage of Black females diagnosed with late-stage breast cancer.	34.1%	32%	(BRFSS, 2020)
<b>Colorectal Cancer</b>			
Increase the proportion of adults 50-75 who have met the USPSTF recommendations of colorectal cancer screening in Louisiana.	73.1%	74.4%	(BRFSS, 2020)
<b>Lung Cancer</b>			
Reduce the lung cancer death rate.	49.7/ 100k	41.0/ 100k	(LTR, 2014-2018)
Increase the proportion of smokers who get screened for lung cancer.	3.3%	6%	(American Lung Association, 2021)
<b>Prostate Cancer</b>			
Increase the proportion of Black men (40+) who have discussed the advantages of PSA test with their healthcare provider.	24%	26.5%	(BRFSS, 2020)

Note: Additional information on specific cancers sites is in the appendices.

## Early Detection Strategies

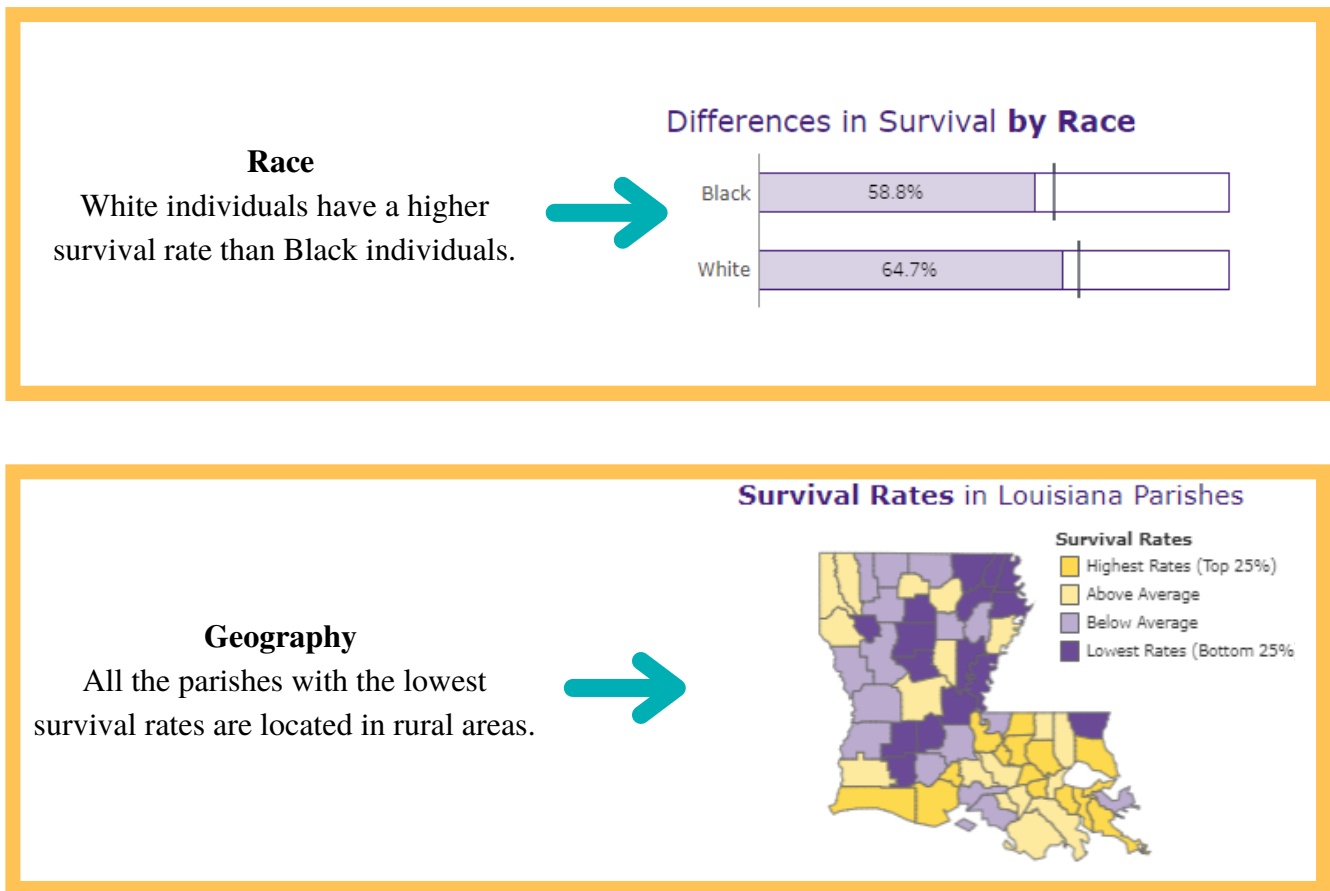
- Address barriers to accessing care for populations of focus through community health workers/lay health educators and patient navigators, including lack of medical home, coverage for care, food insecurity, education on the importance of screening, and distrust of health system.
- Facilitate follow-up for abnormal screening results, through patient navigation and referral coordination.
- Work with primary care providers and health systems to facilitate quality improvement initiatives to increase HPV vaccination and cancer early detection according to USTPF recommendations.
- Train all staff in providing culturally competent service to all patients, their families, and their chosen support person(s) throughout the cancer care continuum.
- Educate partners (ex. clinics/health systems, worksites, local coalitions) and the community about the availability of affordable or no cost prevention and screening services, including through the Louisiana Breast & Cervical Health Program.
- Implement tailored media campaigns to promote prevention and screening for populations of focus.
- Connect high-risk patients to genetic counseling.
- Conduct landscape analysis of genetic counseling in the state.
- Increase HPV vaccination and screening opportunities outside of regular clinical hours and locations, including mobile screening, telehealth, alternative community-based locations, and non-traditional hours.
- Educate clinicians on changes to cancer screening and vaccination guidelines.
- Develop and disseminate best practices for providing care across the cancer continuum to people in disaster areas.
- Increase appropriate use of telehealth and mobile screening services.
- Utilize cancer data from Louisiana Tumor Registry and other sources to target interventions and populations to advance health equity and reduce cancer disparities.
- Train healthcare providers on sensitive approaches and modified procedures to increase cancer screening by people avoiding health care due to experiences of sexual trauma.
- Increase access to healthy foods through community-based programs (LHCCs mini grants, CHWs and patient navigators).
- Convene partnerships, such as Healthy Communities Coalitions, Taking Aim at Cancer in Louisiana, and Louisiana Colorectal Cancer Roundtable, to develop and implement interventions and address policy needs.
- Educate lawmakers on the benefits of strategies to reduce smoking, second-hand smoke, and the use of nicotine products and to increase clean air.
- Promote Well-Ahead Louisiana's WellSpot Designation Program to facilities, particularly worksites and schools.

# Chapter 7. Treatment & Survivorship

All cancer patients should have access to appropriate, timely, affordable treatment and support services. Cancer survivors often face extensive challenges and their diagnosis affects them physically, psychologically and financially. This in turn affects their quality of life and ability to survive the disease. Survivorship centers the well-being of the patient from treatment onward.

According to ACS estimates, the population of cancer survivors increased to more than 22.1 million nationwide in 2019. Louisiana has a lower 5 years survival rate for all cancers than the national average--62.8% (LTR, 2013-2017) vs. 67.4% (NIH, 2019). Among those individuals who survive cancer in Louisiana, we see disparities. Figure 5 below highlights differences in survival based on race and geography, and is followed by a table of objectives for this chapter.

**Figure 5. Racial and Geographical Disparities in Cancer Survival in Louisiana, 2013-2017**



[View LTR data visualization tool to learn more about cancer survival in Louisiana](#)

**Table 6. Treatment/Survivorship Objectives**

Objectives	Baseline	Target (2027)	Source
Increase the proportion of stage-specific cancer survivors who are living 5 years or longer diagnosis.	Localized: 86.9% Regional: 60.8% Distant: 25.2%	Localized 89.4% Regional 63.3% Distant 27.7%	(LTR 2007 - 2017) Dates of Diagnosis
Decrease the amount of cancer survivors who reported fair to poor health.	30.2%	28.7%	(BRFSS, 2020)

## Treatment/Survivorship Strategies

- Train all staff in providing culturally competent service to all patients, their families, and their chosen support person(s) throughout the cancer care continuum.
- Connect high-risk patients to genetic counseling.
- Conduct landscape analysis of genetic counseling in the state.
- Educate clinicians on the importance of MSI testing before treatment for colorectal cancer.
- Develop and disseminate best practices for providing care across the cancer continuum to people in disaster areas.
- Increase appropriate use of telehealth and mobile screening services.
- Utilize cancer data from Louisiana Tumor Registry and other sources to target interventions and populations to advance health equity and reduce cancer disparities.
- Increase access to healthy foods through community-based programs (LHCCs mini grants, CHWs and patient navigators).
- Support efforts that increase the access to food, physical activity and mental health resources for people with cancer and cancer survivors.
- Educate lawmakers on the benefits of strategies to reduce smoking, second-hand smoke, and the use of nicotine products and to increase clean air.
- Promote Well-Ahead Louisiana’s WellSpot Designation Program to facilities, particularly worksites and schools.

# Chapter 8. Collaboration

This plan and related initiatives would not be possible without people and organizations working together. See the list of stakeholder organizations at the end of the plan.

**Table 7. Collaboration Objectives**

Objectives	Baseline	Target (2027)	Source
Maintain local and statewide partnerships and coalitions. Baseline 24 partners, 11 coalitions.	24 Partners, 11 Coalitions	24 Partners, 11 Coalitions	(LCP, 2021)

## Collaboration Strategies

- Convene partnerships, such as Healthy Communities Coalitions, Taking Aim at Cancer in Louisiana, and Louisiana Colorectal Cancer Roundtable, to develop and implement interventions and address policy needs.
- Utilize cancer data from Louisiana Tumor Registry, and other sources to target interventions and populations to advance health equity and reduce cancer disparities.
- Identify funding sources to implement policy, systems, and environmental changes in Louisiana.
- Evaluate LCCCP’s programmatic and planning efforts.

# Chapter 9. Surveillance

Cancer control efforts in Louisiana are based on the latest available data, and evidence-based interventions. Our state is fortunate to have the Louisiana Tumor Registry (LTR), one of the best tumor registries in the US, and will continue to make this data as accessible as possible to the public, including residents, policy makers, and researchers. LTR is one of only 21 cancer registries in the United States included in the NCI’s Surveillance, Epidemiology, and End Results (SEER) Program. LTR consistently achieves the benchmark of 98% case completeness set forth by NCI and has received first place awards for the quality and completeness of its SEER data for the past 11 consecutive years. CDC’s National Program of Cancer Registries provides funding to LTR.

Since we must rely on self-reported data from BRFSS for cancer screening rates for the general population, we are looking for a better source of rates. Taking Aim at Cancer in Louisiana (TACL) has been working with LTR and other partners to develop a screening registry for the state. While unfunded and in the initial stages of planning, having this information would greatly improve our ability to plan, implement, and evaluate our initiatives and outcomes.

**Table 8. Surveillance Objectives.**

Objectives	Baseline	Target (2027)	Source
By 2027, establish a colorectal cancer screening registry.	0	1	TACL

## Surveillance Strategy

Utilize cancer data from Louisiana Tumor Registry and other sources to target interventions and populations to advance health equity and reduce cancer disparities.

# Chapter 10. Genetics

In addition to appropriate genetic testing for Lynch syndrome in the Acadiana region, providers should take thorough patient histories to identify all patients who need referral to genetic testing. While a shortage of genetic counselors trained in cancer exists, remote counseling is often provided by genetic testing companies in preparation for and following a genetic test.

For colorectal cancer patients, microsatellite instability (MSI) testing should be done to inform treatment. A 2015 Louisiana based study on colorectal cancer patients under 50, MSI results were available before surgery for only 16.9% of cases. Patients were more likely to receive an MSI test at any point in their care if they had CRC family history, or received care at comprehensive cancer center or at an urban facility (unpublished LTR data, 2015).

Genetic testing is covered by private insurance and LA Medicaid. Although the uninsured rate in Louisiana is 9% (U.S. Census Bureau, American Community Survey, 2019), many people are not receiving testing according to recommendations.

**Table 9. Genetics Objectives**

Objectives	Baseline	Target (2027)	Source
Decrease the percentage of men in Louisiana ages 50-75 who report that they have not received 1+ recommended CRC test within the recommended time interval.	30.1%	25%	(BRFSS, 2020)
Increase the percentage of CRC patients less than 50 years old who receive MSI testing.	60.6%	75%	(LTR, 2016)

## Genetics Strategies

- Connect high-risk patients to genetic counseling.
- Conduct landscape analysis of genetic counseling in the state.
- Educate clinicians on the importance of MSI testing before treatment for colorectal cancer.

# Chapter 11. Environment

The 85-mile area along the Mississippi River from Baton Rouge to the mouth of the river, known as the Industrial Corridor or Cancer Alley, is home to over 150 industrial plants. Since residents in the Industrial Corridor are more likely to be Black and of lower socioeconomic status, the location of these plants is an environmental injustice. Residents are rightfully concerned about effects chemical emissions are having on their health. To date, no rigorous studies of the Industrial Corridor have pinpointed higher cancer rates, or directly linked rates to emission; however, it is worth noting that mortality rates for cancer are high in across Louisiana, including that area.

It is exceedingly difficult to link cancer incidence directly to a specific exposure. Attempts are hindered by the long latency for cancer development (length of time between the exposure and the diagnosis of cancer), the low statistical power of most analyses due to small numbers of cases, uncertain definitions of cluster boundaries and the population of interest, and in- and out-migration in the community (Goodman, 2014). Identifying an association between the exposure and disease requires long-term epidemiological studies that look at individual level-based exposure in people with and without cancer. This is beyond the scope of the LTR data; claims of associations between chemical plants and cancer rates, or lack thereof cannot be made based solely upon data from LTR, one of the leading cancer registries in the US.

This is not to say that there are no risks from living in the Industrial Corridor. As noted above, it is difficult to show causation for a number of reasons, including the long latency period for cancer. It is also worth noting that while there is an excellent cancer registry in Louisiana, there is no registry for COPD, cardiovascular disease, or other conditions that could be caused by exposure to chemical plant emissions. These diseases may manifest earlier than cancer, and result in death before cancer develops, or is detected. In short, cancer will not be detected and counted by LTR if people die from other illnesses.

**Table 10. Environment Objectives.**

Objectives	Baseline	Target (2027)	Source
Increase the usage of the LTR Data Visualization site.	3,200	3,280	(LTR, 2021)

## Environment Strategy

Utilize cancer data from Louisiana Tumor Registry and other sources to target interventions and populations to advance health equity and reduce cancer disparities.



# Chapter 12. Evaluation

The success of the cancer plan will be evaluated by analyzing the progress towards and achievement of the its goal and objectives.

To improve the implementation and evaluation efforts for this plan, we will continue to engage and regularly communicate with LCCCP stakeholders throughout the implementation period. To lessen the burden of reporting by primary stakeholders, we will evaluate the state cancer plan’s effectiveness by using publicly available and easily accessible evaluation metrics. For each section of the cancer plan, we have identified metrics that will determine if our strategies were effective, and if our goals were accomplished. An annual report will assess if any plan goals, objectives, or strategies need to be revised. The evaluation plan also will be updated based on relevant data changes found through ongoing assessment. The annual report will be disseminated to stakeholders via email, and posted on the LCP website.

All metrics are detailed below in Table 10. The evaluation manager at LCP will be responsible for monitoring and reporting on the metrics after the culmination of the plan in December 2027. The evaluation team will ask the plan's primary stakeholders to identify factors that contributed to meeting goals and objectives, and challenges and barriers to success. In 2028, the evaluation manager will compile will all results, and produce an evaluation report that summarizes the findings.

The final evaluation report will be disseminated within two months after the culmination of the plan and will be discussed, along with the lessons learned, via email and at a follow-up meeting for stakeholders. The plan also will be posted on the LCP website. The annual and final reports will inform the development of future Louisiana cancer plans, and help stakeholders develop and improve initiatives.

**Table 11. Evaluation**

<b>Objective</b>	<b>Baseline for 2022</b>	<b>Target</b>	<b>Data Source</b>	<b>Rates (2027)</b>	<b>Target Met (Y/N)</b>
<b>Overall Cancer Incidence and Mortality</b>					
Decrease overall cancer incidence.	482.4/100k	479.9/100k	LTR		
Decrease overall cancer mortality.	176.1/100k	173.6/100k	LTR		
<b>Priority Populations/Health Equity</b>					
Decrease incidence rate for all cancers for Black Louisianans.	491.5/100k	489.0/100k	LTR		
Decrease mortality rate for all cancers for Black Louisianans.	203.8/100k	201.3/100k	LTR		
Decrease incidence rate for all people with low incomes.	500.5/100k	498.0/100k	LTR		
Decrease mortality rate for all people with low incomes.	173.3/100k	170.8/100k	LTR		
Decrease incidence rate for all cancers for people in rural areas.	453.9/100k	451.4/100k	LTR		
Decrease mortality rate for all cancers for people in rural areas.	169.7/100k	167.2/100k	LTR		

Objective	Baseline for 2022	Target	Data Source	Rates (2027)	Target Met (Y/N)
Increase screening among people who identify as LGBTQ+.	Breast: 65% Colorectal: 59% Cervical: 55%	Breast: 71% Colorectal: 65% Cervical: 60%	BRFSS		
<b>Prevention</b>					
<b>Tobacco Control</b>					
Decrease smoking rate among adults.	18.3%	15.8%	BRFSS		
Increase the population in Louisiana protected by comprehensive smoke-free policy.	27%	100%	TFL		
<b>Obesity-Physical Activity</b>					
Increase the percentage of adults, ages 18+, who participate in 150 minutes or more in aerobic physical activity per week.	44.9%	49.9%	BRFSS		
<b>Obesity-Healthy Eating</b>					
Increase the percentage of adults, ages 18+, who consumed 1 or more vegetables per day.	74.5%	79.5%	BRFSS		

Objective	Baseline for 2022	Target	Data Source	Rates (2027)	Target Met (Y/N)
<b><i>HPV</i></b>					
Increase the number of adolescent females aged 13-15 years who are UTD with the HPV vaccination series.	41.4%	80.0%	NIS-Teen		
Increase the number of adolescent males aged 13-15 years who are UTD with the HPV vaccination series.	39.7%	80.0%	NIS-Teen		
<b>Early Detection</b>					
<b><i>Cervical Cancer</i></b>					
Increase the percentage of women aged 21-65 who have had a cervical cancer screening within the past three years.	78.1%	82.0%	BRFSS		
<b><i>Breast Cancer</i></b>					
Increase the percentage of women aged 50-74 years old who have had a mammogram within the past two years.	82.3%	86.4%	BRFSS		

Objective	Baseline for 2022	Target	Data Source	Rates (2027)	Target Met (Y/N)
Increase the percentage of Black females aged 40-49 years old who have had a mammogram within the past two years.	85.2%	87.7%	BRFSS		
Reduce the percentage of Black females diagnosed with late-stage breast cancer.	34.1%	32%	BRFSS		
<b>Colorectal Cancer</b>					
Increase the proportion of adults 50-75 who have met the USPSTF recommendations for colorectal screening.	73.1%	74.4%	BRFSS		
Reduce the colorectal cancer death rate in Louisiana.	16.9 deaths/100k	8.9 deaths/100k	LTR		
<b>Lung Cancer</b>					
Reduce the lung cancer death rate.	49.7 deaths/100k	41 deaths/100k	LTR		
Increase the proportion of smokers who get screened for lung cancer.	3.3%	6.0%	American Lung Association		

Objective	Baseline for 2022	Target	Data Source	Rates (2027)	Target Met (Y/N)
<b>Prostate Cancer</b>					
Increase the proportion of black men (40+) who have discussed the advantages of PSA test with their healthcare provider.	24.1%	26.5%	BRFSS		
<b>Treatment and Survivorship</b>					
Increase the proportion of stage-specific cancer survivors who are living 5 years or longer after diagnosis.	Localized: 86.9% Regional: 60.8% Distant: 25.2%	Localized: 89.4% Regional: 63.3% Distant: 27.7%	LTR		
Decrease the amount of cancer survivors who reported fair to poor health.	30.2%	28.7%	BRFSS		
<b>Leadership and Collaboration</b>					
Maintain existing partnerships and/or establish new partnerships so as to align existing initiatives and/or identify opportunities for collaboration.	24 Partners, 11 coalitions	24 Partners, 11 coalitions	LCP		

Objective	Baseline for 2022	Target	Data Source	Rates (2027)	Target Met (Y/N)
<b>Other</b>					
<b>Genetics</b>					
Decrease the percentage of men age 50-75 who report that they have not received 1+ recommended CRC test within the recommended interval.	30.1%	25.0%	BRFSS		
Increase the percentage of CRC patients less than 50 years old who receive MSI testing.	60.6%	75.0%	LTR		
<b>Environmental</b>					
Increase the usage of LTR Data Visualization site.	3,200 page views per year	3,280 page views per year	LTR		
<b>Surveillance</b>					
Establish a colorectal cancer screening registry.			TACL		

# Chapter 13. What You Can Do

## Public Agencies

- Include cancer prevention, screening, and treatment in quality improvement initiatives.
- Partner with screening providers to bring accessible, affordable prevention and early detection to areas and populations of focus.
- Collaborate with the Louisiana Breast and Cervical Health Program to connect low-income women to no-cost breast and cervical screening.
- Encourage your staff to join your regional Louisiana Healthy Communities Coalition, and collaborate on other efforts that address the underlying causes of poor health outcomes, including the social determinants of health.
- Educate policy makers on cancer prevention and control.
- Provide staff trainings on the lived experiences of Black breast cancer survivors so that they can better understand the needs and concerns of Black women living with the disease.

## Policy Makers

- Enact policies that make it easier for people to quit smoking and avoid secondhand smoke; eat well and exercise; and access quality, affordable health services.
- Develop relationships with experts in cancer prevention and control to learn more about outcomes in your area, and strategies for improvement.
- Recognize the importance of providing internet, healthy food, and other neighborhood and community level services that impact peoples' ability to prevent and address cancer.
- Collaborate with farmers and farmer's markets to develop policy that expands access to healthy food in Black and low-resource communities across the state.

## Community-Based Organizations

- Be a hub to connect communities to social services (food, housing, jobs, and healthcare).
- Join social care network tools such as UNITE US and Aunt Bertha, or encourage your community to use 3-1-1 as a point of entry for different social services statewide.
- Collaborate with statewide groups addressing the cancer burden in Louisiana (TACL, LCCP).
- Refer your community to no-cost breast and cervical screenings through The Louisiana Breast and Cervical Health Program.
- Join your regional Louisiana Healthy Communities Coalition.

## Faith-Based Organizations

- Share cancer prevention information to members through existing channels of communications.
- Become a Faith-Based WellSpot.



- Collaborate with organizations leading health and wellness programming around tobacco cessation, healthy cooking, or physical activity events.
- Join your regional Louisiana Healthy Communities Coalition.

### **Schools**

- Join Well-Ahead school designation program.
- Provide consistent messaging to parents and other staff members about HPV vaccine and cancer prevention.
- Provide training to staff on evidence-based communication strategies known to improve vaccine confidence.
- Educate students around the dangers of smoking and vaping.
- Promote the Louisiana Campaign for Tobacco-Free Living (TFL) Next Era program within your high school campus.
- Collaborate with community health workers in your region.
- Connect parents with health and wellness resources by hosting health fairs, or including resources in school bulletin boards or handouts.

### **Health Care Providers and Systems**

- Provide workforce training around racial equity, cultural competency and LGBTQ+ bias.
- Collect social determinant of health (SDOH) data from patients, including gender identity information, and use the data to improve services.
- Offer patient navigation for screening, treatment, and survivorship.
- Incorporate community health workers within your clinic or healthcare system. Connect with the Louisiana Community Health Worker Institute for technical assistance around implementing a community health worker program.
- Join statewide collaborative groups addressing cancer burden in Louisiana (HPV working group, TACL, LCCRT).
- Ensure patients have access to culturally and linguistically appropriate care.
- Collect comprehensive cancer family history from patients, and provide appropriate referrals to genetic counseling.
- Use your data to track screening rates, and other important outcomes to guide quality improvement.
- Review your cancer-related policies related to cancer prevention, early detection, treatment, and survivorship to make sure they reflect the most up-to-date recommendations from expert organizations and panels, including USPSTF, NCCN, and professional societies.

## Healthcare Insurers/Payers

- Ensure that recommended cancer screenings and immunizations are provided without additional cost, and are easy for people to access.
- Support access to and coverage for smoking cessation classes, nutrition programs, palliative care services, mental health services, and cancer treatment drugs.
- Use your data to track screening rates, and other important outcomes to guide quality improvement.
- Review your cancer-related policies related to cancer prevention, early detection, treatment, and survivorship to make sure they reflect the most up-to-date recommendations from expert organizations and panels, including USPSTF, NCCN, and professional societies.

## Employers

- Support employees dealing with cancer.
- Collaborate with hospitals to host worksite-screening events.
- Share information about no-cost cancer screening services such as the Louisiana Breast and Cervical Health Program.
- Become a WellSpot or develop policies that support healthy practices in the workplace (tobacco free, health foods in meetings, flextime off for screenings).
- Provide paid time off for health care appointments, and sickness.

## Individuals

- Follow a healthy lifestyle.
  - Quit using tobacco in all forms.
  - Maintain a healthy weight, eat a good diet, and stay active.
  - Limit or quit drinking alcohol.
  - Limit sun exposure, and never use tanning beds.
- Support smoke-free policies.
- Have a regular source of medical care that you trust.
- Get screened for cancer following national recommendations.
- Vaccinate your children for HPV.
- Complete an annual visit with your primary care provider.
- Know your family history, and talk to your doctor about it.

# Stakeholders

We want to thank our partner organizations and coalitions that guided the development of this plan, and whose work is the backbone of cancer control in the state. As Desmond Tutu said: "Do your little bit of good where you are; it's those little bits of good put together that overwhelm the world."

American Cancer Society  
AmeriHealth Caritas Louisiana  
Cancer Association of Louisiana  
CHRISTUS St. Frances Cabrini Hospital  
CHRISTUS Ochsner St. Patrick Women's Health Center  
Lallie Kemp Regional Medical Center  
Louisiana Breast and Cervical Health Program  
Louisiana Colorectal Cancer Round Table  
Louisiana Department of Health  
Louisiana Healthy Communities Coalition  
Louisiana Primary Care Association  
Louisiana Public Health Institute  
Louisiana Tumor Registry  
LSU AgCenter  
LSU Health New Orleans School of Public Health  
LSU Health Sciences Center Shreveport  
LSU Shreveport's Feist-Weiller Cancer Center  
Luke's House Clinic  
National Cervical Cancer Coalition, Lafayette Louisiana Chapter  
NOELA Community Health Center  
Ochsner LSU Health Monroe  
Screen Up!  
Sexual Trauma Awareness and Response  
St. Gabriel Health Clinic, Inc.  
St. Thomas Community Health Center  
Teche Action Clinic  
The Louisiana Campaign for Tobacco-Free Living  
Taking Aim at Cancer in Louisiana  
University Medical Center, New Orleans  
Woman's Hospital  
Well-Ahead Louisiana

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# Appendices

Appendix A: Breast Cancer

Appendix B: Colorectal Cancer

Appendix C: Cervical Cancer

Appendix D: Lung Cancer

Appendix E: Prostate Cancer

Appendix F: Melanoma

# EARLY DETECTION BREAST CANCER



## Objectives

## Baseline

## Target (2027)

By 2027, increase the percentage of females aged 50-74 years old who have had a mammogram within the past two years.

82.3 %  
Black females: 86.4%  
White females: 80.6%  
(BRFSS 2020)

86.4%

By 2027, increase the percentage of Black females between 40-49 years old who have had a mammogram within the past two years.

85.2%  
(BRFSS 2020)

87.7%.

By 2027, reduce the percentage of Black females diagnosed with late-state breast cancer.

34.1%  
(LTR 2013-2017)

32%

## PRIORITY POPULATIONS

- Black females
- LGBTQ+
- Females living in rural areas

# EARLY DETECTION

## BREAST CANCER



### Incidence

125.9 per 100k

3,484 cases diagnosed per year on average

### Mortality

23.1 per 100k

653 deaths per year on average

### Survival Rates

85.8%

### Mammography Rates

Louisiana FQHCs  
Screening rate for 2020  
were below national level



USA

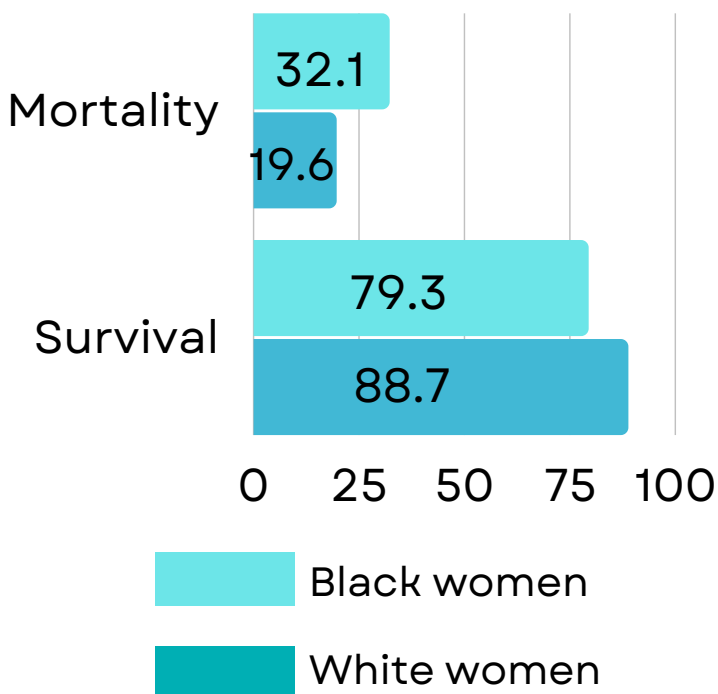
45.34%

Louisiana

41.10%

UDS 2020

### Health Disparities



Average annual rate per 100,000 age adjusted to the 2000 US standard population



Black women die at a higher rate than White women



Black women have lower survival rates than White women

Louisiana has the **2nd** highest mortality rate for Breast Cancer in USA

CDC, USCS Data Visualizations, 2021

# EARLY DETECTION COLORECTAL CANCER



## Objectives

## Baseline

## Target (2027)

Increase the proportion of adults who get screened for colorectal cancer in Louisiana among people 50-75.

73.1%  
(BRFSS 2020)

74.4%

Will include 45-49 years old

Reduce the colorectal cancer death rate in Louisiana.

16.9 deaths  
per 100k people  
(LTR 2014-2018)

8.9 deaths  
per 100k people

### Incidence

45.1 diagnosed per 100k  
2,366 cases diagnosed per year

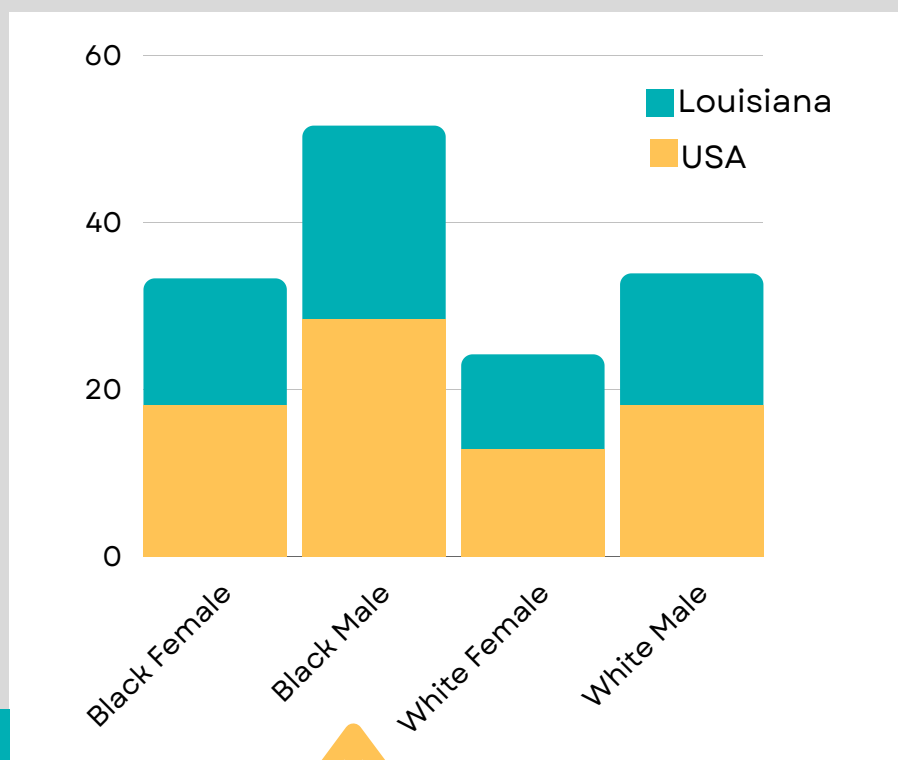
### Mortality

16.9 deaths per 100k  
885 deaths per year

### 5 year Survival Rate

62.5%

### Health Disparities



## PRIORITY POPULATIONS

Black Men  
Acadians  
Rural Residents

The mortality rate for Black males is higher overall in Louisiana and throughout the United States

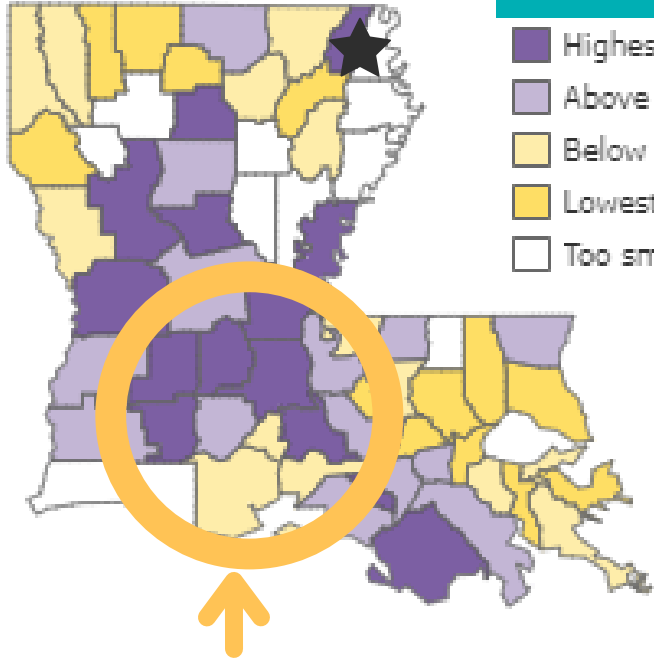
LTR (2014-2018)

# EARLY DETECTION COLORECTAL CANCER



## Mortality

- Highest Rates (Top 25%)
- Above Average
- Below Average
- Lowest Rates (Bottom 25%)
- Too small to display



**Highest mortality rates in rural parishes**

★ West Carroll parish has the highest mortality rate for colorectal cancer in the state with 31.4 deaths per 100k people

## Acadiana Region high incidence of CRC

52.5 Acadia Region

45.1 Statewide

Cajuns - Louisiana founder community of French descent with increased risk for CRC

## Declining Colorectal Screening Rates

Year	USA	LA
2018	44.11%	40.81%
2019	44.11%	43.31%
2020	40.09%	37.56%



UDS (2020)

Louisiana ranked **5th** highest death rate for colorectal cancer in the USA

# EARLY DETECTION

## CERVICAL CANCER



### Objectives

By 2027, increase the percentage of women aged 21-65 who have had a cervical cancer screening within the past 3 years.

### Baseline

78.1%  
**Black females: 80.9%**  
**White females: 76.3%**  
 (BRFSS 2020)

### Target (2027)

82%

### Incidence

9.4 per 100k

217 cases diagnosed per year on average

### Mortality

3.1 per 100k

80 deaths per year on average

### 5 year Survival Rate

62.7 %

### Health Disparity

Black women die at a higher rate (4.7 per 100k) than white women (2.6 per 100k)

LTR (2014-2018)

Cervical Cancer screening rates have been in decline recently

2018 84.5 %

2020 78.1 %



BRFSS 2020 ( women 21-65 years old)

Louisiana has the **5th** highest cervical cancer mortality rate in USA

CDC, USCS Data Visualizations, 2021

## PRIORITY POPULATIONS

- Black females
- LGBTQ+
- Females living in rural areas
- Female victims of sexual assault

# EARLY DETECTION

## LUNG CANCER



### Objectives

### Baseline

### Target (2027)

Reduce the lung cancer death rate.

49.7 deaths  
per 100k people  
LTR (2014-2018)

41 deaths  
per 100k people

Increase the proportion of adults who get screened for lung cancer.

3.3%  
(American Lung  
Association, 2021)

6%

#### Incidence

66.2 per 100k

3, 546 cases diagnosed per year  
on average

#### Mortality

49.7 per 100k

2, 622 deaths per year on  
average

#### 5 year Survival Rate

16.0 %

LTR (2014-2018)

#### Health Disparity

**Black men** have the highest mortality rate for lung cancer in Louisiana (80.9 per 100k) and nationwide (57.5 per 100k).

Louisiana has the

10th

highest mortality rate for  
Lung Cancer in USA

CDC, USCS Data Visualizations, 2021

**PRIORITY  
POPULATIONS**

Black men  
LGBTQ+  
Rural

# EARLY DETECTION LUNG CANCER



## Who should be screened?

The U.S. Preventive Services Task Force (USPSTF) recommends yearly lung cancer screening for people who –

- Have a 20 pack-year or more smoking history, and
- Smoke now or have quit within the past 15 years, and
- Are between 50 and 80 years old.

## Lung Screening in LA

Only **3%** of those at high risk completed screening. This is significantly lower than the national rate of **6%** (ALA,2021).

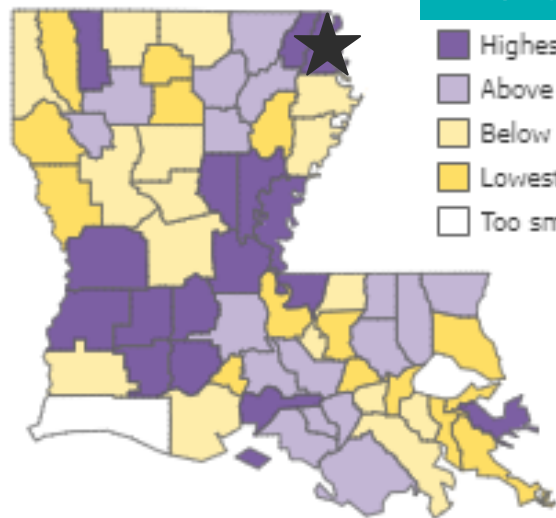
Louisiana Ranks **40th** among all states in screening.



**Low screening rates among those at high risk**

## Mortality Rate

- Highest Rates (Top 25%)
- Above Average
- Below Average
- Lowest Rates (Bottom 25%)
- Too small to display



**Highest mortality rates in rural parishes**



★ East Carroll and West Carroll Parishes have the highest lung cancer mortality rate in the state with 101.8 and 74.0 deaths per 100k people respectively.

LTR (2014-2018)



# EARLY DETECTION PROSTATE CANCER



## Objectives

## Baseline

## Target (2027)

Increase the proportion of Black men (40+) who have discussed the advantages of PSA test with their healthcare provider.

24%  
(BRFSS 2020)

26.5%

### Incidence

134.7 per 100k

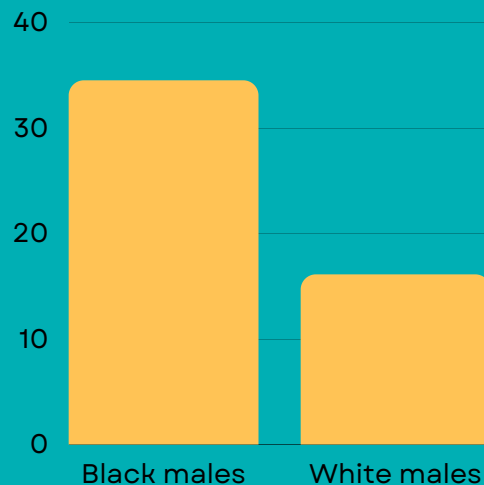
3, 577 cases diagnosed per year

**Black males** 183.9 cases per 100k

**White males** 118.4 cases per 100k

### Health Disparities

Mortality rate for Black males is higher compared to White males



Prostate cancer affects Black males approximately 55% more than White males in Louisiana. (LTR, 2021)

### Mortality

20.5 per 100k

428 deaths per year on average

### 5 year Survival Rate

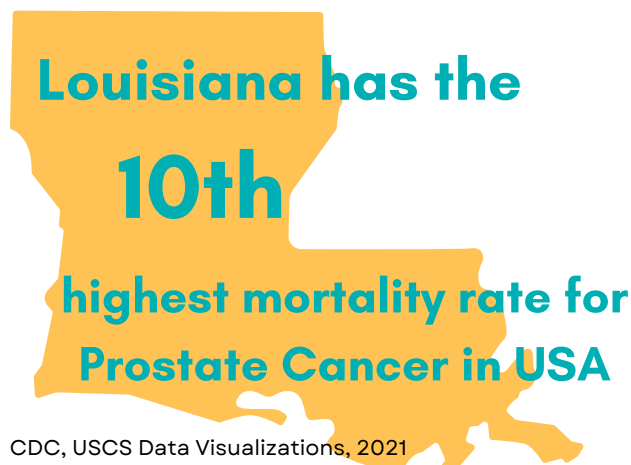
97.1 %

LTR (2014-2018)

Who should be screened for Prostate Cancer ?

**Screening is not recommended for all men.**

USPSTF recommends men between **55 to 69 years old** to make individual decisions about being screened for prostate cancer with a **prostate specific antigen (PSA) test** (CDC,2021).



# PREVENTION

## MELANOMA



### Incidence

18.2 per 100k

930 cases diagnosed per year on average



### Mortality

1.7 per 100k

88 deaths per year on average

### Survival Rates

89%

LTR (2014-2018)

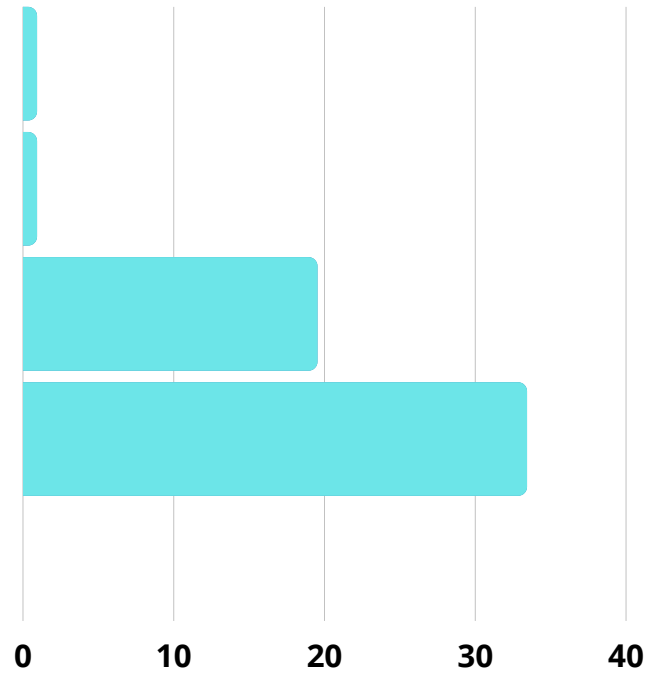
In Louisiana, the incidence rate for melanoma is highest among White males.

Black females

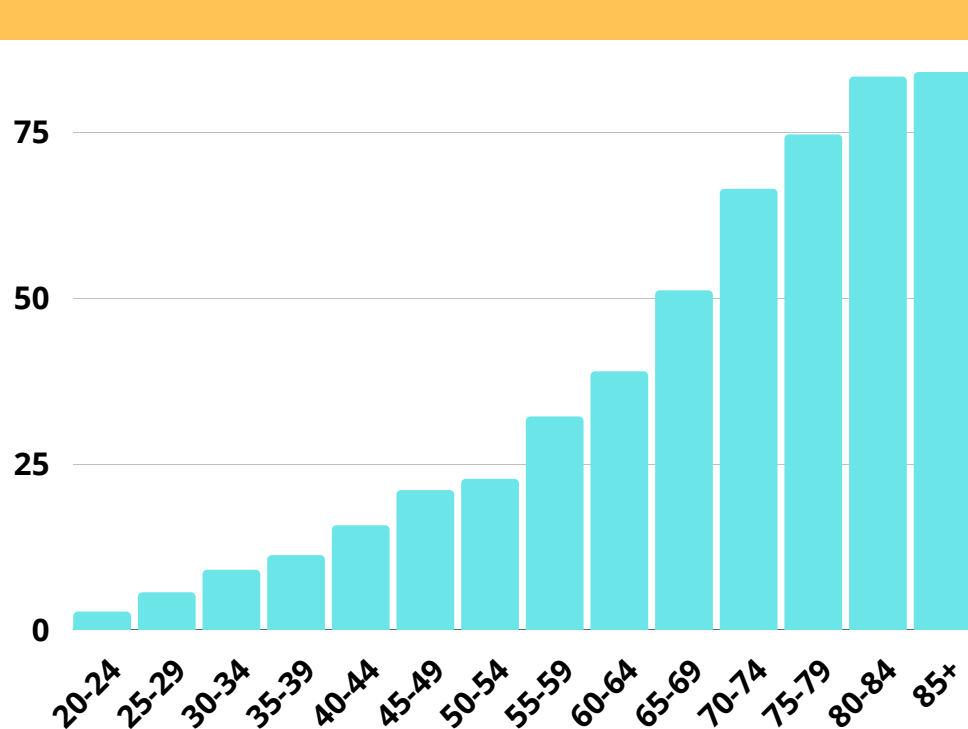
Black males

White females

White males



100 Melanoma incidence increases with age.



Louisiana has the

**49th**

highest mortality rate for  
Melanoma in USA