→ 2019

Community Cancer Needs Assessment

MVCP VANDERBILT-INGRAM CANCER CENTER


SEE
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ROCK CITY
ATOP LOOKOUT MT.

Contents

Introduction

The mission of the Vanderbilt-Ingram Cancer Center (VICC) is to alleviate cancer death and suffering through pioneering research; innovative patient-centered care; and evidence-based prevention, education, and community initiatives.
VICC has had a long-standing partnership with Meharry Medical College (MMC) and Tennessee State University (TSU) called the MMC-VICC-TSU Cancer Partnership (MVTCP). The mission of the MVTCP is to advance cancer disparities research, outreach initiatives, and clinical trials with a focus on minority, rural, low-income, and other underserved populations.

Purpose of Report

The VICC Office of Community Outreach and Engagement and the MVTCP Cancer Outreach Core partnered together to assess needs and opportunities related to cancer in the area served by VICC and MVTCP (our catchment area), in collaboration with the VICC Community Advisory Board (CAB) and the MVTCP CAB.

The purpose of this assessment was to characterize the burden of cancer in our catchment area and gather input from a range of community stakeholder groups about what needs and gaps need to be addressed.

Using existing data and collecting new data, we examined needs at multiple levels – for patients and community members, among health care providers, and within the healthcare system itself. In collaboration with the VICC CAB, MVTCP CAB, and other community partners, we will use the report findings to inform ongoing strategic planning of targeted research and outreach initiatives to address community-identified needs, racial/ethnic disparities and rural disparities, related to cancer.

Catchment Area

Cancer Needs Assessment

Our catchment area includes 123 counties encompassing the entire state of TN, additional counties in western KY, and northern AL.

123
COUNTIES

95
TN STATE

23
WESTERN KY

5
NORTHERN AL

The following data sources were used to construct statistics and figures throughout the report:

External Data Sources

Cancer Needs Assessment

American Community Survey (ACS), United States (U.S.) Census Bureau:

ACS is a nationally representative sample of households that are randomly selected to participate. This survey provides population estimates of demographic information for various geographic areas.

Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention (CDC):

BRFSS is a representative survey of adults in all states that collects data about health-related risk behaviors, use of preventative services, and chronic health conditions.

County Health Rankings, National Center for Health Statistics:

This resource compiles and calculates county-level community health data from a variety of sources, including estimates of life expectancy based on data from the National Vital Statistics System.

Healthy People 2020, U.S. Department of Health and Human Services:

Healthy People 2020 provides science-based, 10-year national objectives for improving the health of all Americans. Healthy People 2020 establishes benchmarks and monitors progress over time.

National Immunization Survey-Teen (NIS-Teen), CDC:

NIS-Teen is an annual, nationally-representative phone survey that collects immunization information on adolescents aged 13-17 years living in the U.S. and verifies immunization histories from health care providers.

State Cancer Profiles, CDC and National Cancer Institute:

This data resource includes cancer incidence and mortality data for each state from CDC's National Program of Cancer Registries Cancer Surveillance System and the National Vital Statistics System.

U.S. Small-area Life Expectancy Estimates Project (USALEEP), Centers for Disease Control and Prevention (CDC):

USALEEP provides estimates of life expectancy at birth for states and most census tracts in the U.S.

Youth Risk Behavior Surveillance System (YRBSS), CDC:

YRBSS is a self-administered national school-based survey system that collects data regarding health-related risk behaviors among 9th through 12th grade students.

To view data tables, please refer to the appendix: vicc.org/community/research

CATCHMENT AREA

Demographics

Below are the demographic characteristics of our catchment area compared to the population of the U.S.:

	CATCHMENT AREA	UNITED STATES
→ Female	51%	51%
→ Rural Residents	25%	19%
→ Age 65+	15%	15%
→ Less Than 18	23%	23%
→ Median Income	$49,600	$57,700
→ Education High School or Less	31%	27%
→ Poverty	16%	14%
→ Foreign Born	5%	13%

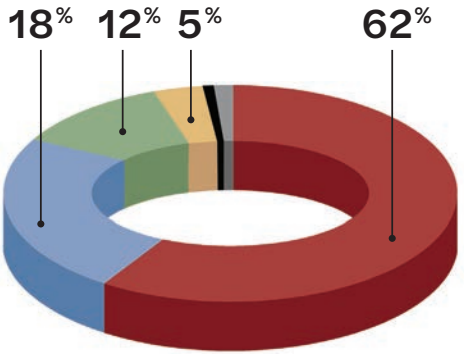
ACS 2013-2017. See data in appendix Table 1

Race and Ethnicity

Key

RACE AND ETHNICITY

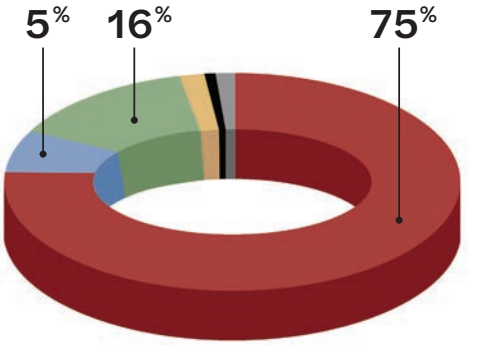
- White
- Hispanic
- Black
- Asian
- Other
- 2+ Races



U.S.

→ POPULATION

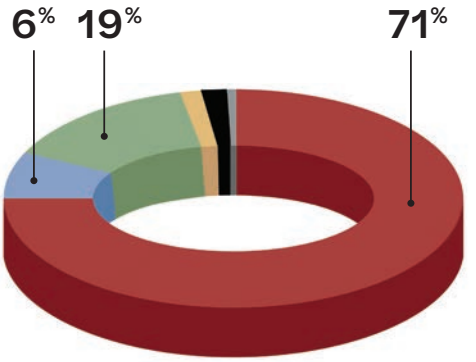
321.0 MILLION



Catchment Area

→ POPULATION

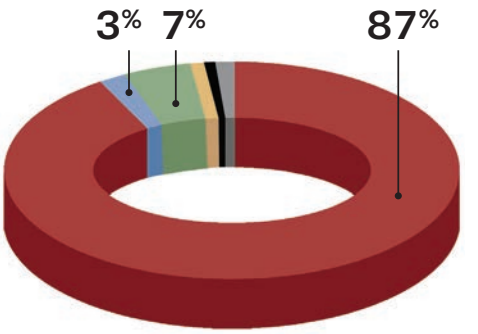
7.9 MILLION



Urban Counties

→ POPULATION

5.9 MILLION



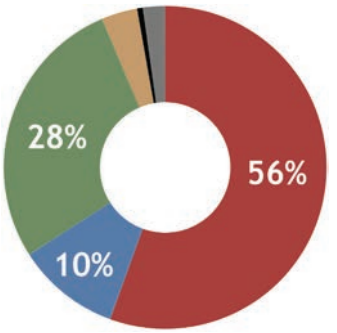
Rural Areas

→ POPULATION

2.0 MILLION

ACS 2013-2017. See data in appendix Table 1

Urban Counties

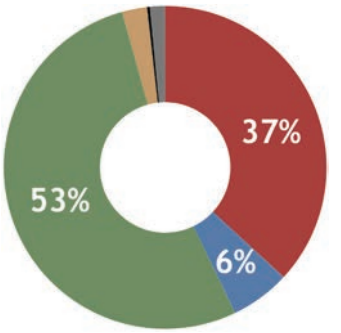


Nashville

DAVIDSON COUNTY

POPULATION

654,187

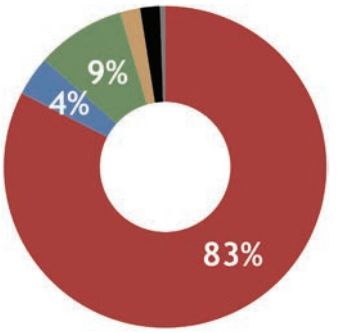


Memphis

SHELBY COUNTY

POPULATION

937,847

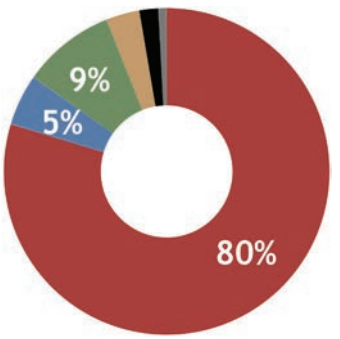


Knoxville

KNOX COUNTY

POPULATION

452,286

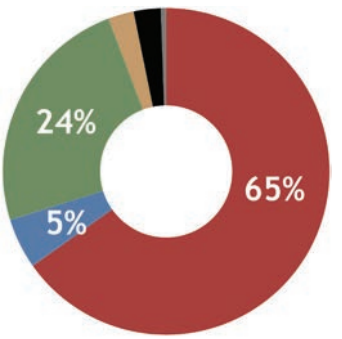


Bowling Green

WARREN COUNTY

POPULATION

123,824



Huntsville

MADISON COUNTY

POPULATION

353,213

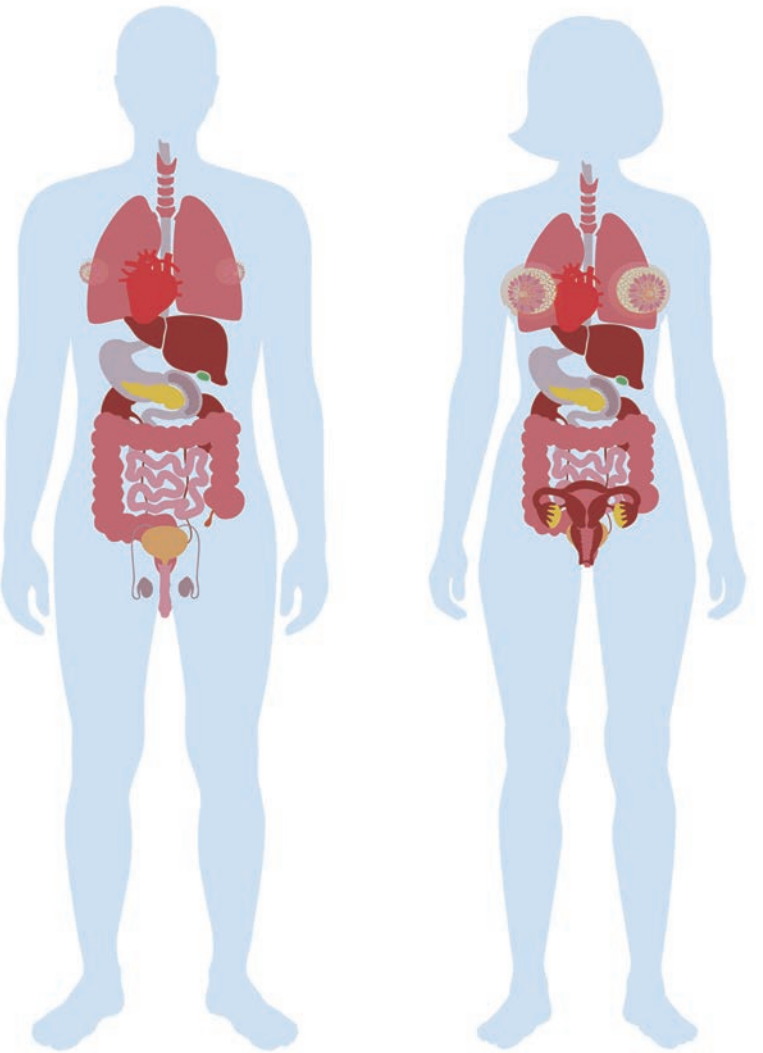
Cancer Burden

→ Most Common Cancers

Affecting Men and Women

CATCHMENT AREA

- PROSTATE
- LUNG
- COLORECTAL
- URINARY BLADDER
- MELANOMA OF THE SKIN



- FEMALE BREAST
- LUNG
- COLORECTAL
- CORPUS AND UTERUS
- MELANOMA OF THE SKIN

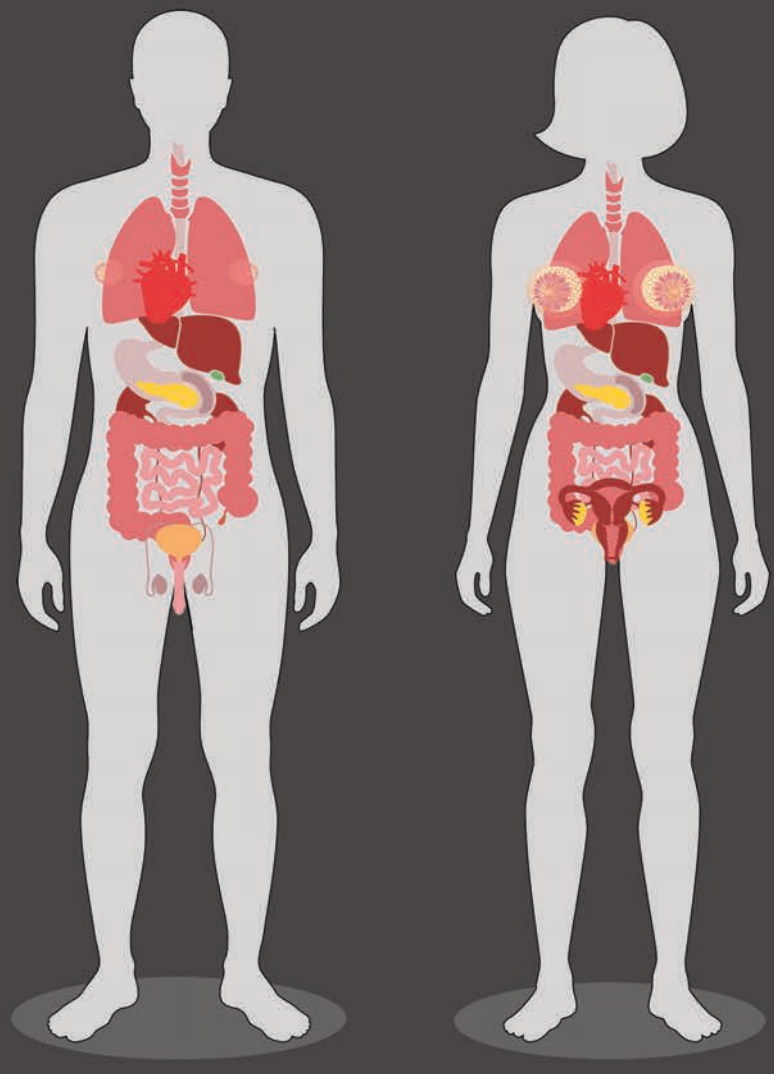
State Cancer Profiles, 2011-2015. See data in appendix Table 2

Cancer Burden

→ Most Common Deaths from Cancers

Affecting Men and Women

CATCHMENT AREA



Cancers with Higher Mortality

IN THE CATCHMENT AREA VS U.S.

These particular types of cancer had higher death rates in our catchment area versus the overall U.S.

State Cancer Profiles, 2011-2015. See data in appendix Table 5

Cancers with Rising Mortality Trends

IN THE CATCHMENT AREA

ALSO RISING IN THE U.S.

NOT RISING IN THE U.S.

- Esophagus
- Melanoma of the Skin
- Pancreas
- Urinary Bladder

State Cancer Profiles, 2011-2015. See data in appendix Table 7

CATCHMENT AREA

Life Expectancy

Life expectancy in Tennessee, Kentucky, and Alabama is lower than the life expectancy in the U.S.

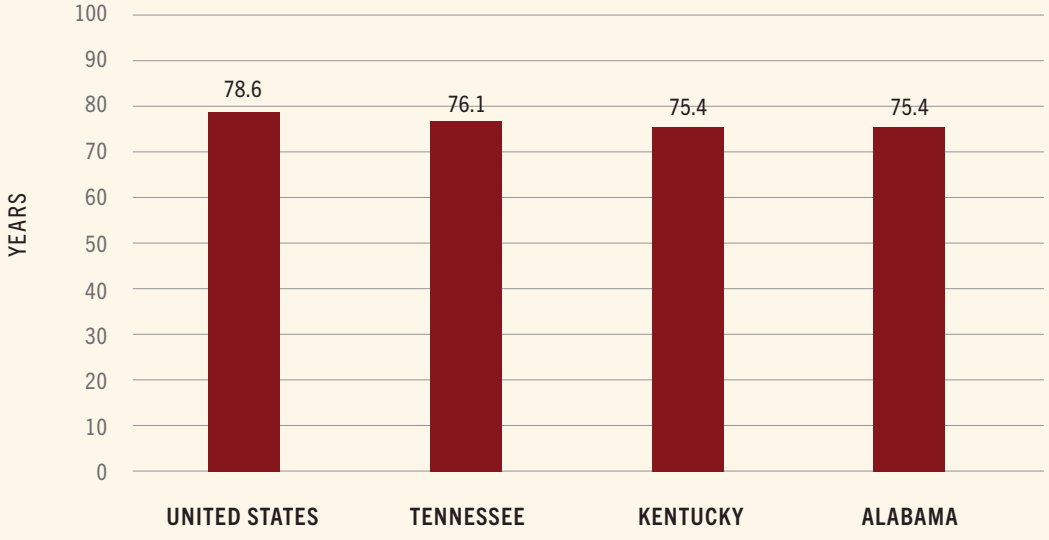
Life expectancy is lower in rural counties compared to urban counties in the catchment area.

78.6
UNITED STATES

76.1
TENNESSEE

75.4
KENTUCKY

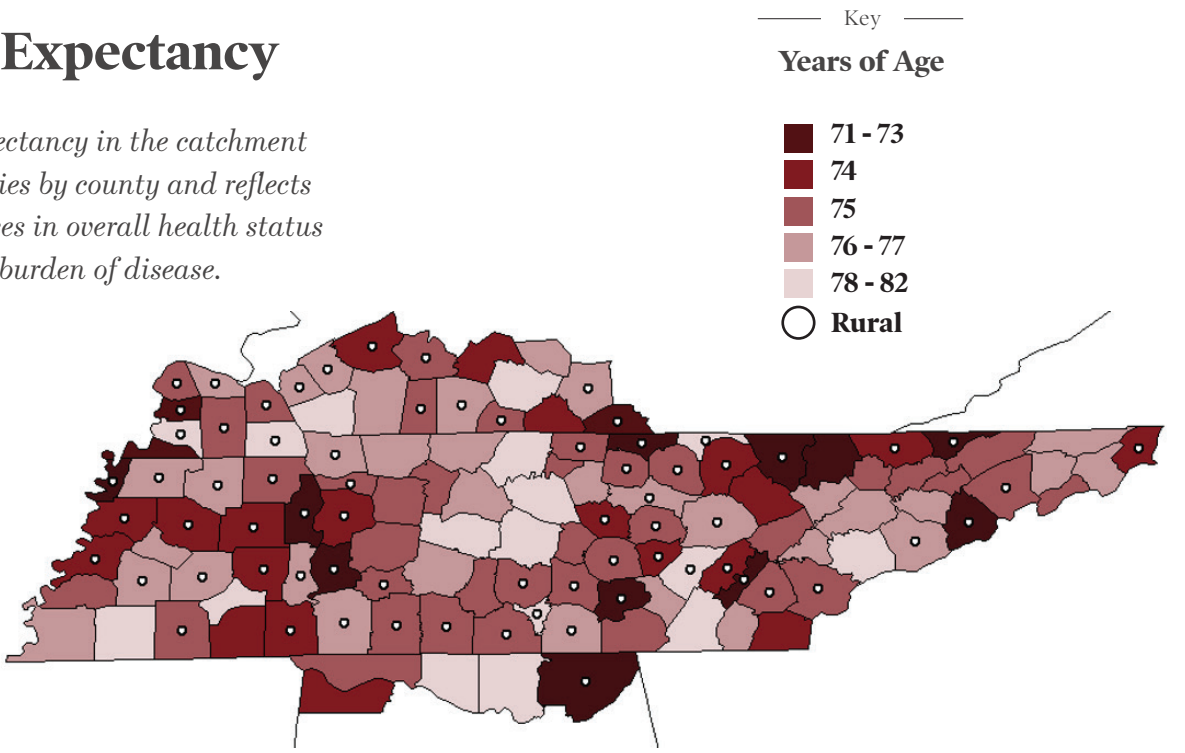
75.4
ALABAMA



USALEEP, 2010-2015. See data in appendix Table 8

Life Expectancy

Life expectancy in the catchment area varies by county and reflects differences in overall health status and the burden of disease.



USALEEP, 2010-2015. See data in appendix Table 9

Cancer Disparities

Racial and Ethnic Disparities

CATCHMENT AREA

New cancer cases or cancer death rates are higher for Blacks and Hispanics compared to non-Hispanic Whites for the cancers listed below.

Blacks Higher

than Whites

- Breast
- Cervix
- Colon & Rectum
- Kidney
- Pancreas
- Prostate
- Stomach
- Uterus

Hispanics Higher

than Non-Hispanic Whites

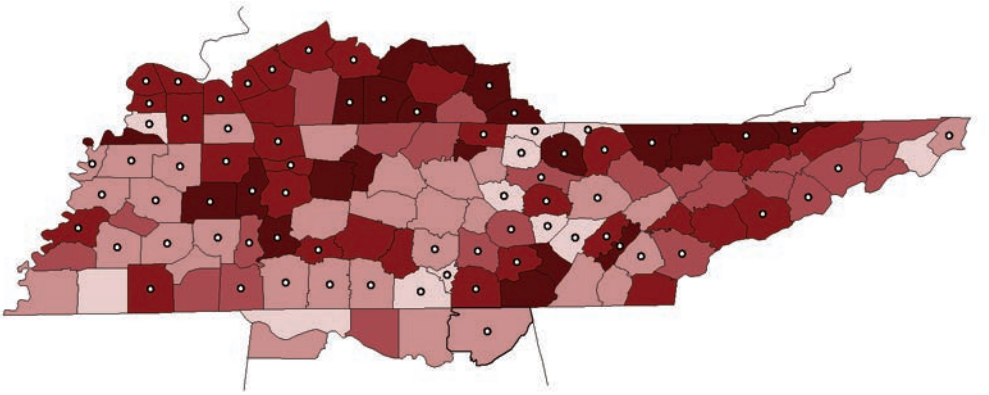
- Cervix
- Childhood
- Stomach

State Cancer Profiles, 2011-2015. See data in appendix Table 11

GEOGRAPHIC DISPARITIES IN

Overall Cancer Incidence

CATCHMENT AREA 2012-2016



INCIDENCE RATE:

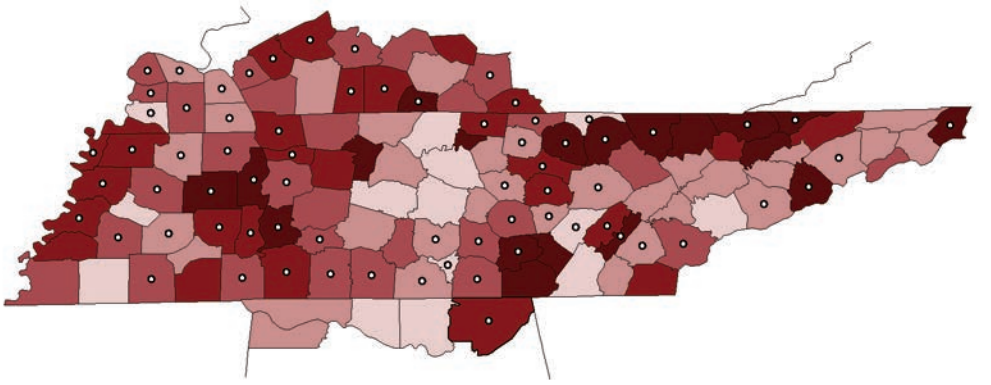
- 391.40 - 426.50
- 426.51 - 459.50
- 459.51 - 477.70
- 477.71 - 502.00
- 502.01 - 544.30
- Rural

The difference in incidence rates among urban and rural counties highlight the geographical disparities that exist in our catchment area.

GEOGRAPHIC DISPARITIES IN

Overall Cancer Mortality

CATCHMENT AREA 2012-2016



MORTALITY RATE:

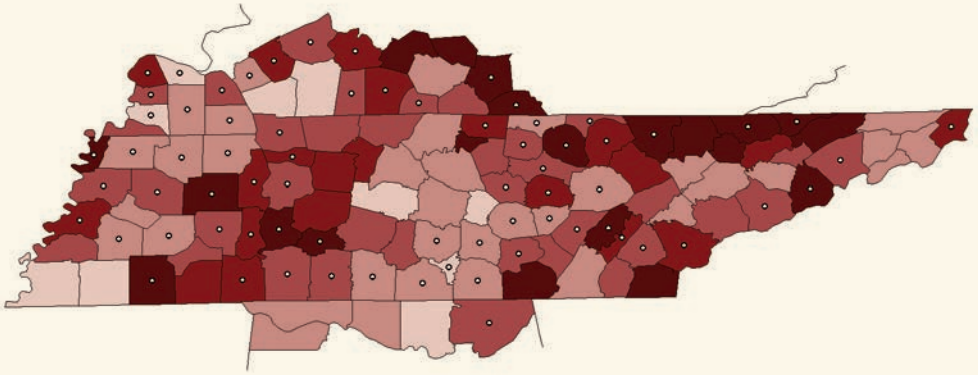
- 127.40 - 168.00
- 168.01 - 185.80
- 185.81 - 200.20
- 200.21 - 218.10
- 218.11 - 254.80
- Rural

State Cancer Profiles, 2011-2015. See data in appendix Table 12 & 13

GEOGRAPHIC DISPARITIES IN

Lung Cancer Incidence

CATCHMENT AREA 2012-2016



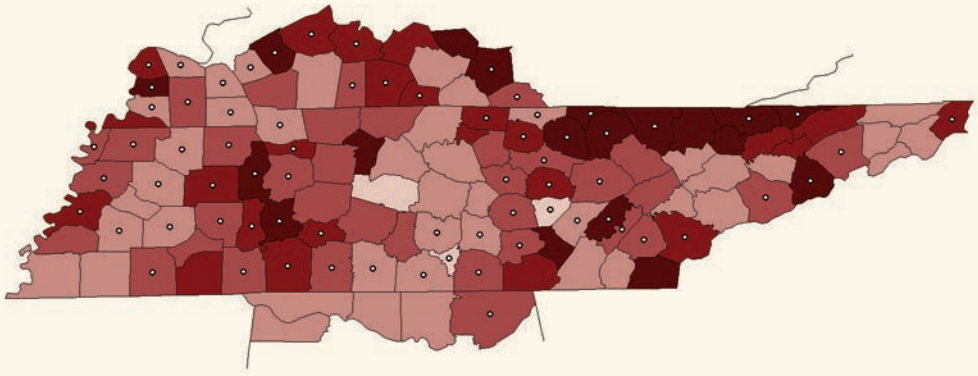
INCIDENCE RATE:

- 42.10 - 62.90
- 62.91 - 77.10
- 77.11 - 87.30
- 87.31 - 100.30
- 100.31 - 116.10
- ◯ Rural

GEOGRAPHIC DISPARITIES IN

Lung Cancer Mortality

CATCHMENT AREA 2012-2016



MORTALITY RATE:

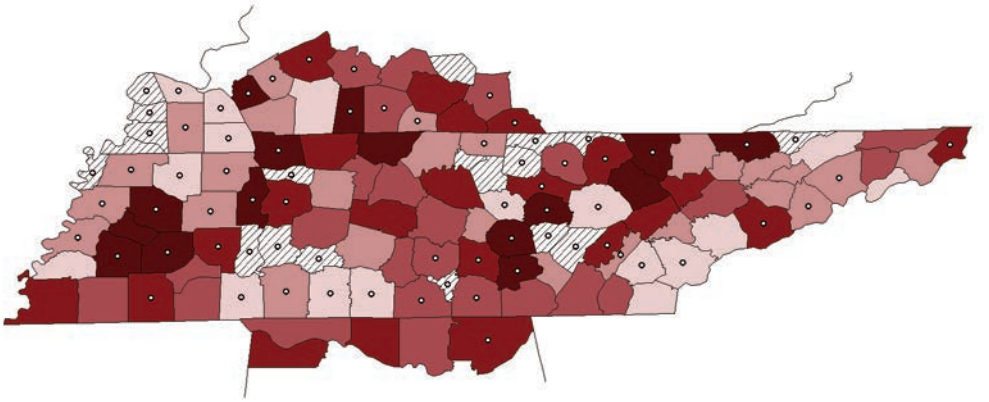
- 29.10 - 36.00
- 36.01 - 56.40
- 56.41 - 66.90
- 66.91 - 75.90
- 75.91 - 88.10
- ◯ Rural

State Cancer Profiles, 2011-2015. See data in appendix Table 14 & 15

GEOGRAPHIC DISPARITIES IN

Late Stage Breast Cancer Incidence

CATCHMENT AREA 2012-2016



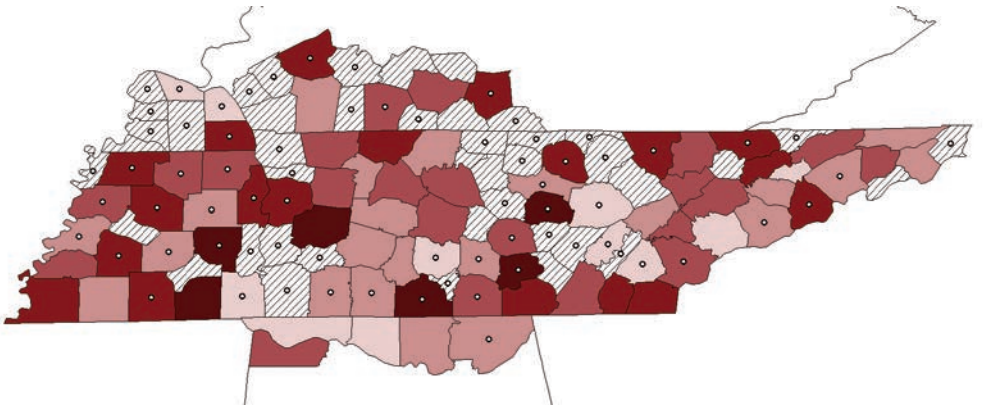
LATE STAGE INCIDENCE RATE:

- Data Suppressed
- 28.95 - 34.10
- 34.11 - 39.20
- 39.21 - 43.50
- 43.51 - 47.80
- 47.81 - 57.90
- Rural

GEOGRAPHIC DISPARITIES IN

Breast Cancer Mortality

CATCHMENT AREA 2012-2016



MORTALITY RATE:

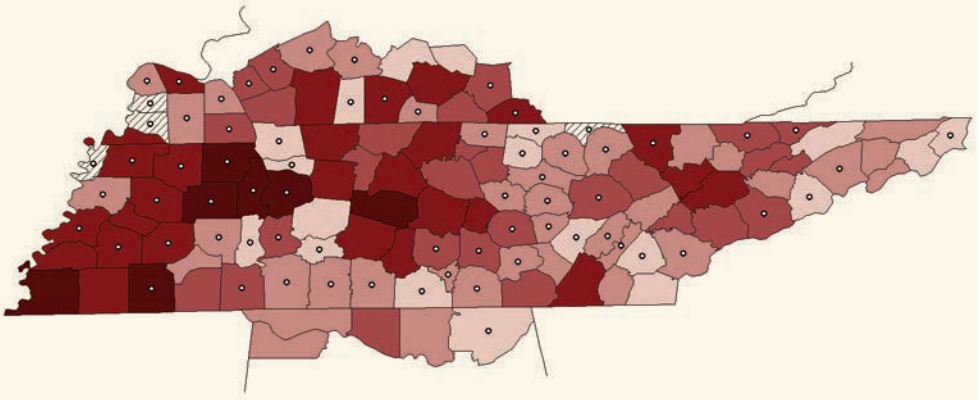
- Data Suppressed
- 13.60 - 16.60
- 16.61 - 20.50
- 20.51 - 23.80
- 23.81 - 28.20
- 28.21 - 35.10
- Rural

State Cancer Profiles, 2011-2015. See data in appendix Table 17 & 18

GEOGRAPHIC DISPARITIES IN

Prostate Cancer Incidence

CATCHMENT AREA 2012-2016



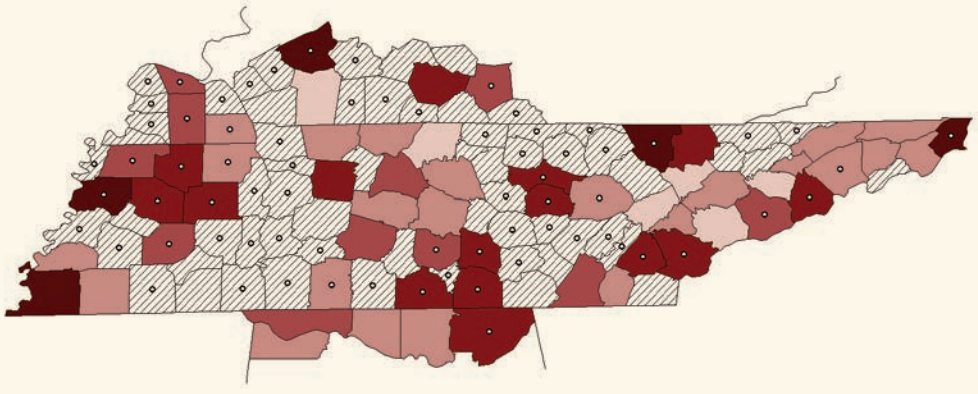
INCIDENCE RATE:

- Data Suppressed
- 61.01 - 80.70
- 80.71 - 97.30
- 97.31 - 111.10
- 111.11 - 129.10
- 129.11 - 152.60
- Rural

GEOGRAPHIC DISPARITIES IN

Prostate Cancer Mortality

CATCHMENT AREA 2012-2016



MORTALITY RATE:

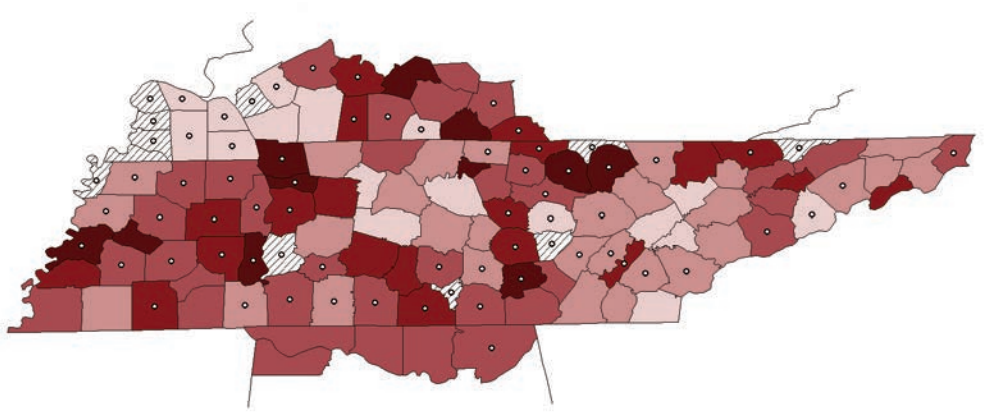
- Data Suppressed
- 11.90 - 14.10
- 14.11 - 18.90
- 18.91 - 22.00
- 22.01 - 25.80
- 25.81 - 30.40
- Rural

State Cancer Profiles, 2011-2015. See data in appendix Table 19 & 20

GEOGRAPHIC DISPARITIES IN

Late Stage Colorectal Cancer Incidence

CATCHMENT AREA 2012-2016



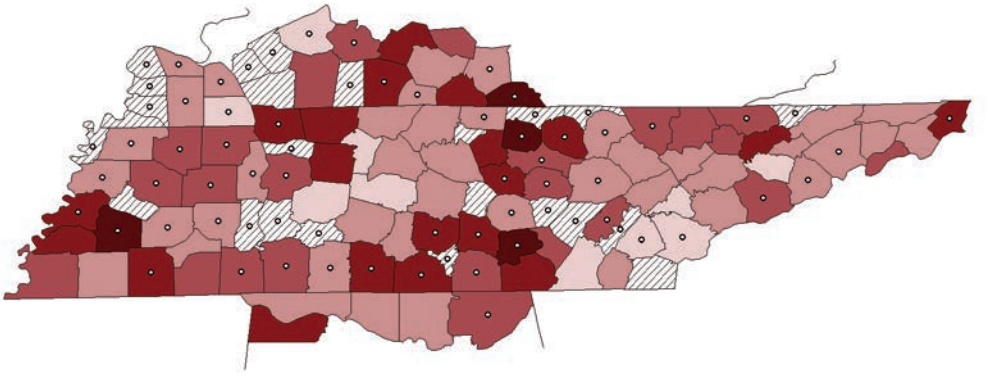
INCIDENCE RATE:

- Data Suppressed
- 16.01 - 20.30
- 20.31 - 23.30
- 23.31 - 26.20
- 26.21 - 31.10
- 31.11 - 44.00
- Rural

GEOGRAPHIC DISPARITIES IN

Colorectal Cancer Mortality

CATCHMENT AREA 2012-2016



MORTALITY RATE:

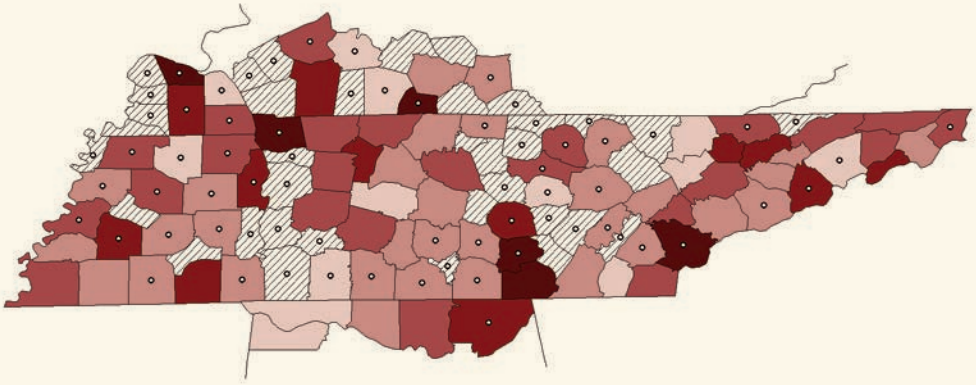
- Data Suppressed
- 8.50 - 12.20
- 12.21 - 16.10
- 16.11 - 19.60
- 19.61 - 23.10
- 23.11 - 30.60
- Rural

State Cancer Profiles, 2011-2015. See data in appendix Table 22 & 23

GEOGRAPHIC DISPARITIES IN

Pancreatic Cancer Incidence

CATCHMENT AREA 2012-2016



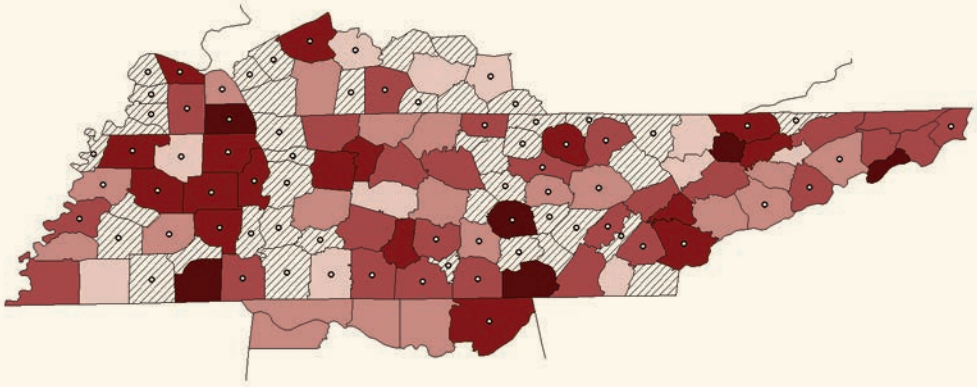
INCIDENCE RATE:

- Data Suppressed
- 6.70 - 10.20
- 10.21 - 12.60
- 12.61 - 14.70
- 14.71 - 17.10
- 17.11 - 20.90
- Rural

GEOGRAPHIC DISPARITIES IN

Pancreatic Cancer Mortality

CATCHMENT AREA 2012-2016



MORTALITY RATE:

- Data Suppressed
- 7.70 - 8.60
- 8.61 - 10.60
- 10.61 - 12.50
- 12.51 - 14.50
- 14.51 - 17.20
- Rural

State Cancer Profiles, 2011-2015. See data in appendix Table 24 & 25

Health Care, Health Behavior, and Prevention

The charts below compare healthcare access, risk and prevention behaviors, and cancer screening for the U.S. versus the catchment area, overall and for selected racial and ethnic groups.

Key

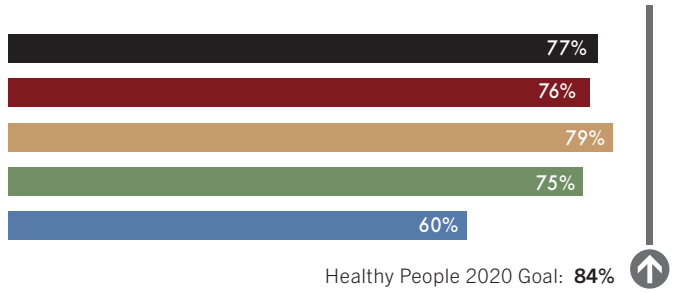
United States

- Overall

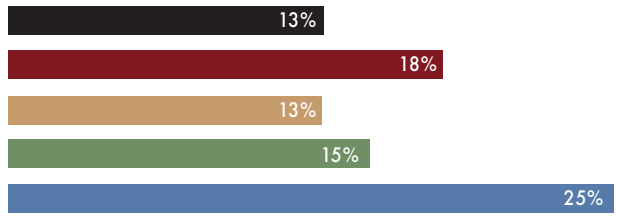
Catchment Area

- Overall
- White
- Black
- Hispanic

→ Have a Regular Health Care Provider



→ Could Not See A Health Care Provider Because of Cost



No Healthy People 2020 Goal Established

Healthy People 2020 Goals:

- Higher % = Better
- Lower % = Better

BRFSS, 2017. See data in appendix Table 26

Key

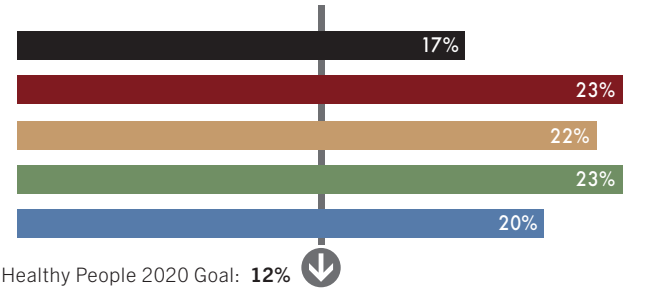
United States

- Overall

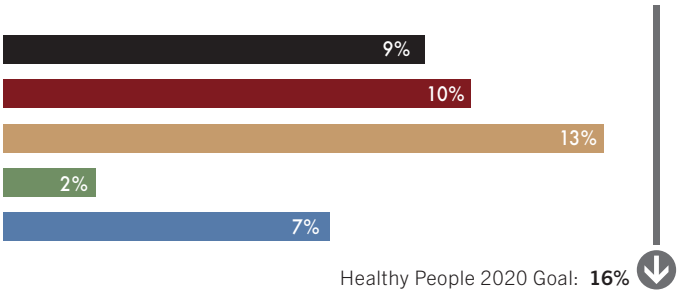
Catchment Area

- Overall
- White
- Black
- Hispanic

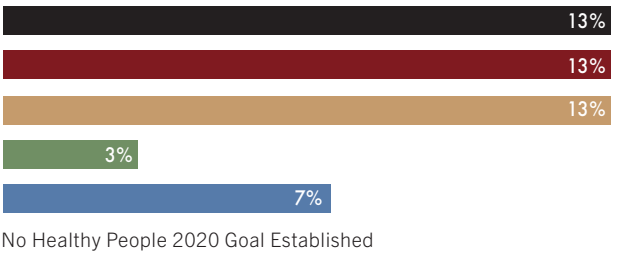
Adult Cigarette Smoking



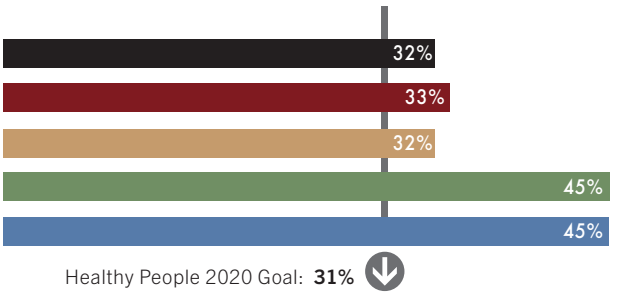
Youth Cigarette Smoking



Youth e-Cigarette Use



Adult Obesity



Healthy People 2020 Goals:

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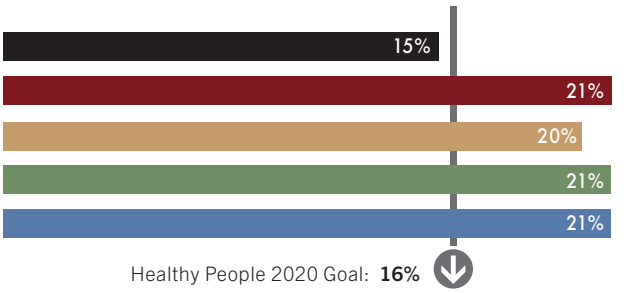
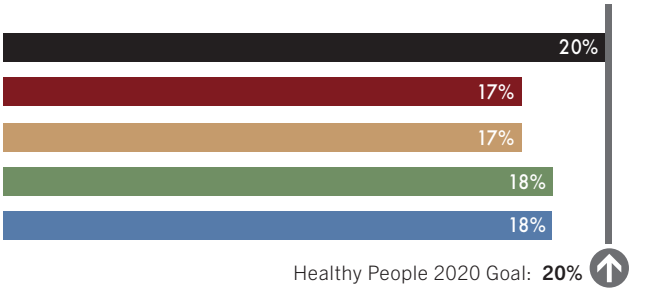
BRFSS, 2017. See data in appendix Table 26

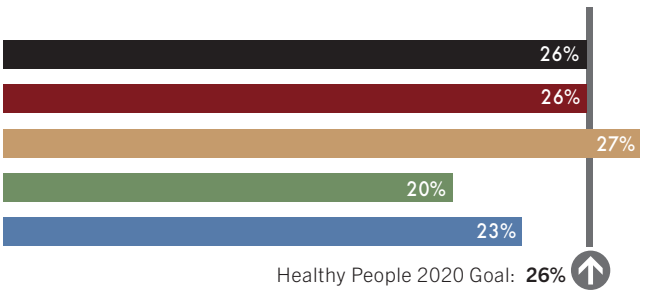
Youth Obesity



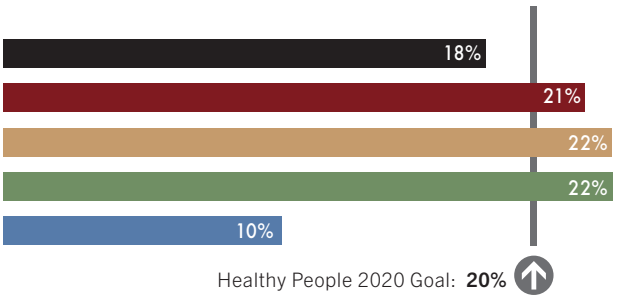
Adult Physical Activity



Youth Physical Activity



Self-Rated Health Status Fair or Poor



BRFSS, 2017. See data in appendix Table 26

Key

United States

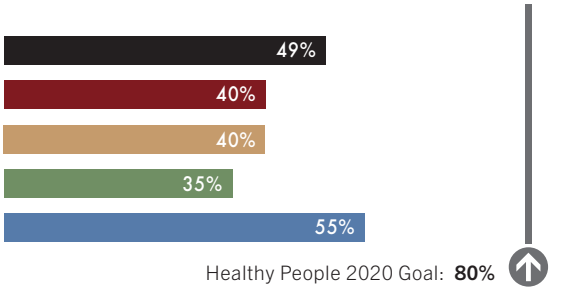
- Overall

Catchment Area

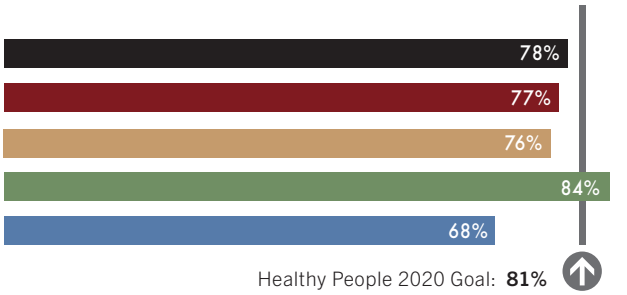
- Overall
- White
- Black
- Hispanic

HPV Vaccination Coverage

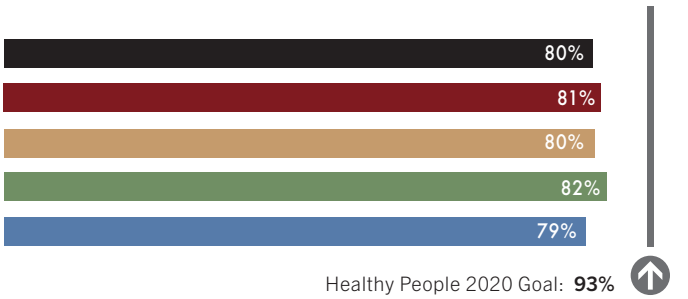
Ages 13-17



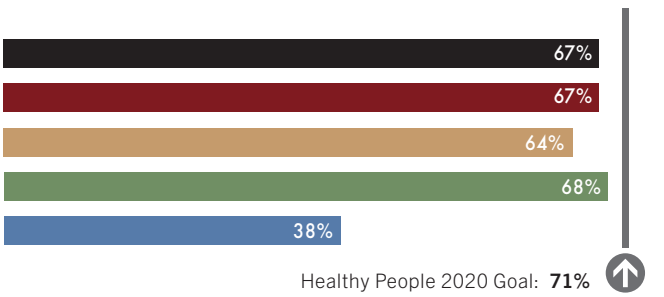
Female Breast Cancer Screening



Cervical Cancer Screening



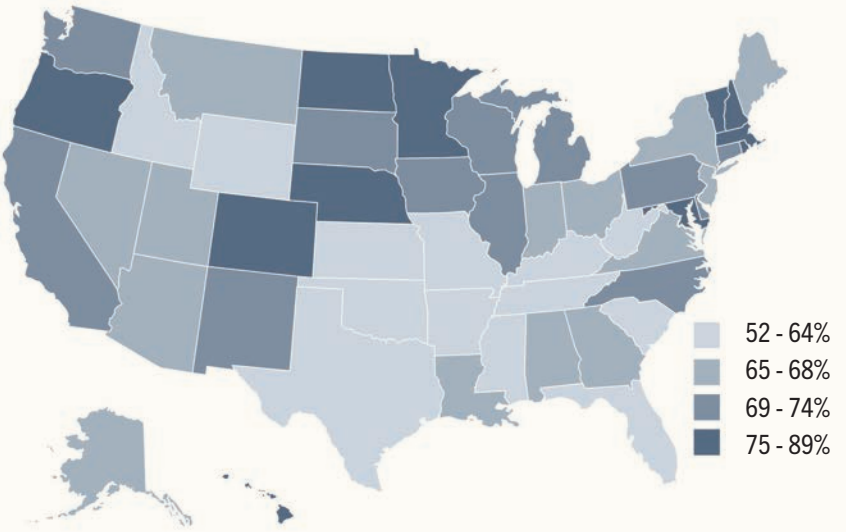
Colorectal Cancer Screening



BRFSS, 2017. See data in appendix Table 26

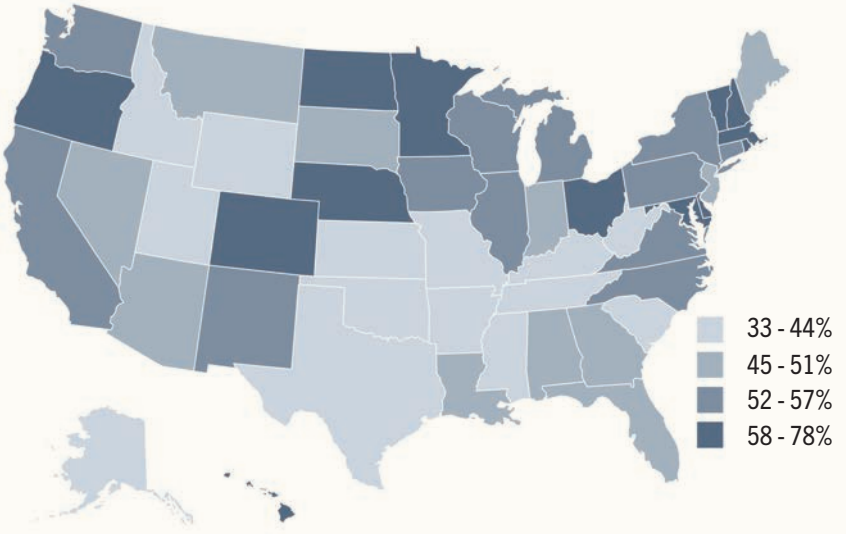
→ Started HPV Vaccine Series

2018



→ Finished HPV Vaccine Series

2018



Tennessee and Kentucky have among the lowest HPV vaccination rates in the U.S.

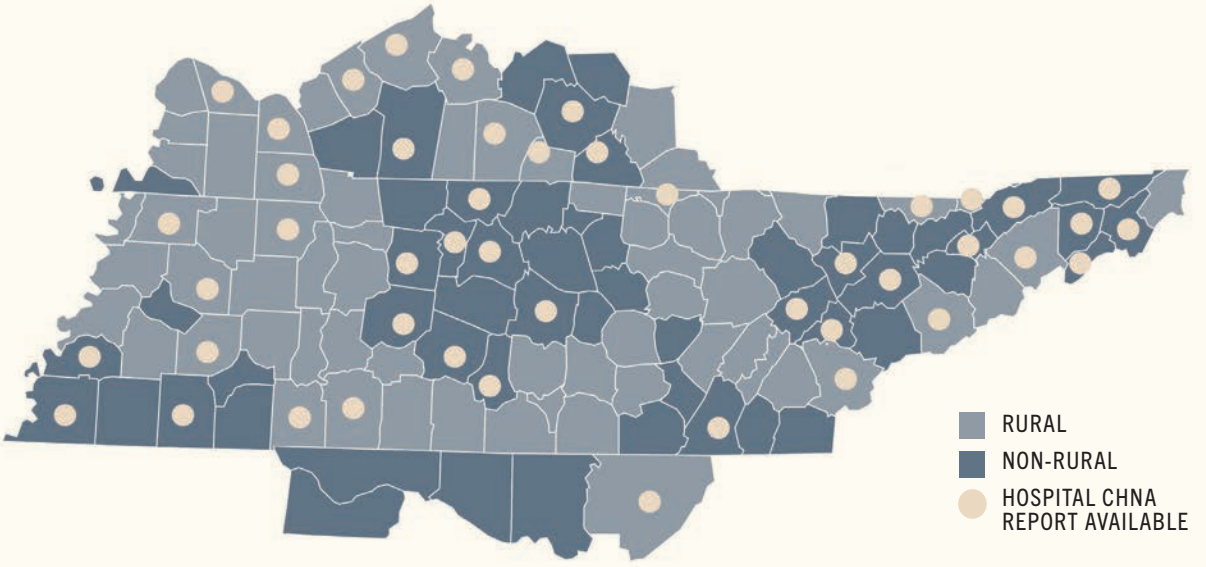
NIS-Teen, 2018. See data in appendix Table 28

REVIEW OF

Community Health Needs Assessments

→ Background

Non-profit hospital systems are required to conduct Community Health Needs Assessments (CHNAs) every three years. The purpose of the hospital performing a CHNA is to keep their non-profit status and to identify health needs in the communities the hospitals serve. Upon identifying community needs, priorities and implementation strategies can be developed.

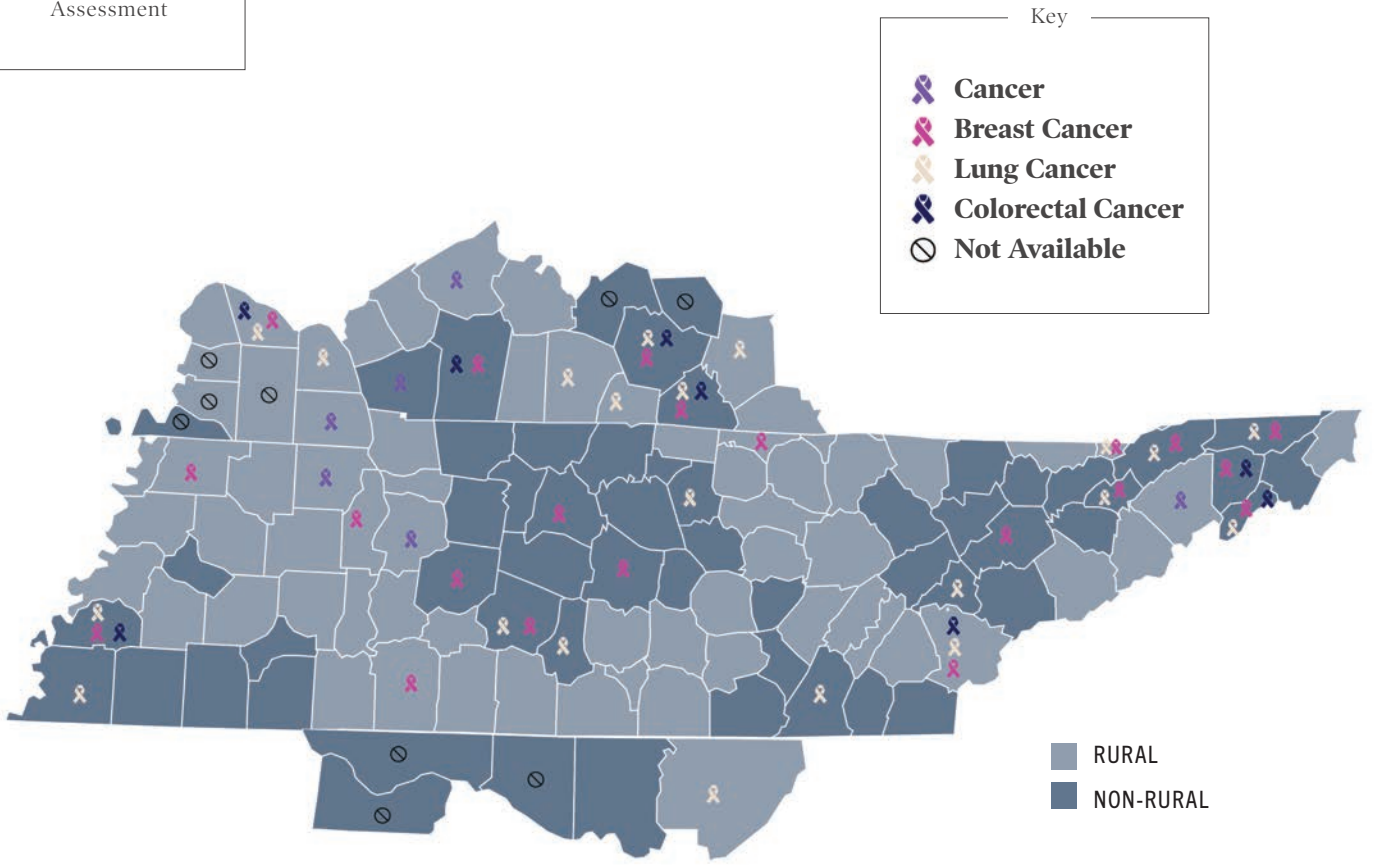


Methods

In an effort for VICC to identify the needs and priorities that have been identified previously by local communities across the catchment area, staff conducted a content analysis of the 61 CHNAs available. An online web search was conducted to identify all the eligible non-profit hospitals within the catchment area.

Next, an online web search was conducted to obtain the CHNA report from the hospital website. If the CHNA report was not available online, a member from the study team contacted an appropriate representative from the hospital to receive the CHNA report. Two members from the study team reviewed the content using the following criteria as priorities/implementation strategies: cancer, breast cancer, colon/colorectal cancer, lung cancer, pancreatic cancer, prostate cancer, breast cancer screening, cervical cancer screening, access to care, social determinants of health, smoking, human papillomavirus (HPV) vaccine, obesity, physical activity, provider education, health fairs, and other. When reviewers disagreed on content ratings, a third member from the team performed the reconciliation. Data were aggregated by priority and implementation strategy.

→ Results Health Priorities and Implementation Strategies Chosen by County



See data in appendix Table 29

Priorities Selected

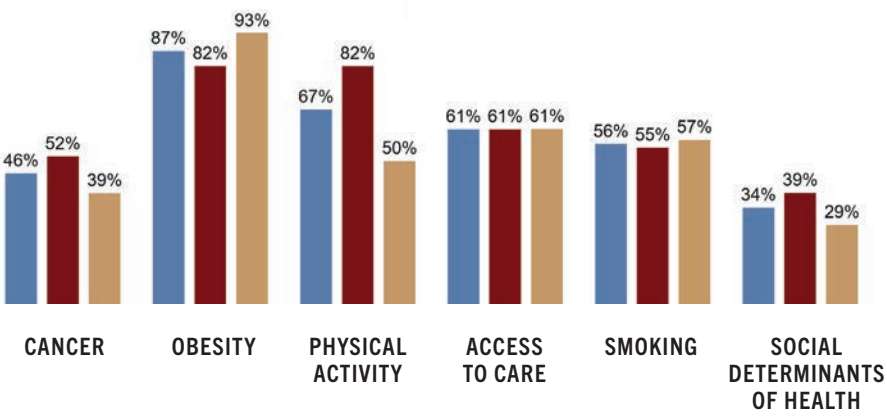
Nearly 50% of hospitals identified cancer as a priority, with breast cancer and lung cancer selected most often. More urban hospitals chose cancer as a priority compared to rural hospitals.

Key

- Total
- Urban Hospital
- Rural Hospital

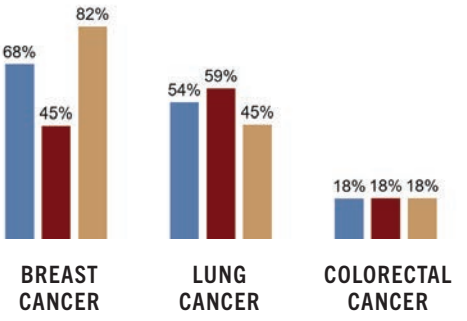
N=61

Cancer-Related Priorities Identified in CHNAs



N=28

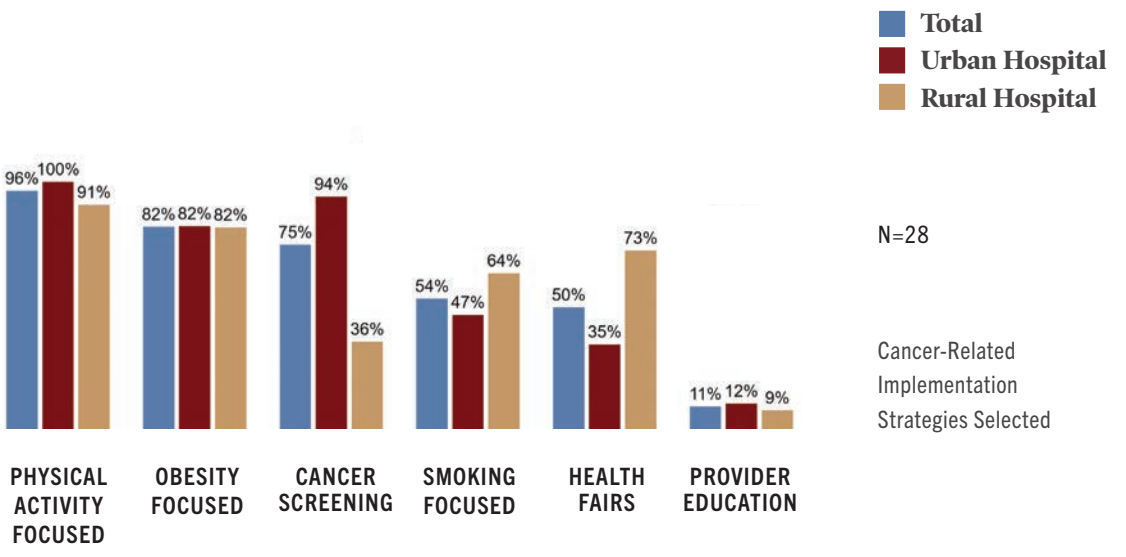
Specific Cancer Priority Topics

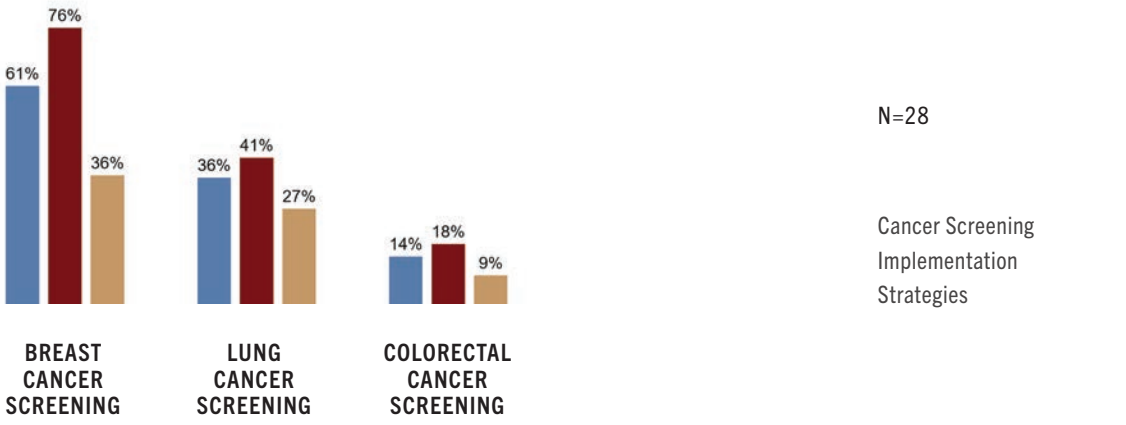


See data in appendix Table 30

→ Results Implementation Strategies Selected

Rural areas were less likely to select cancer-related implementation strategies than urban areas, despite high cancer mortality rates. Smoking-focused strategies were selected more often in rural areas versus urban areas.





See data in appendix Table 31

Telehealth Interest Surveys

Background

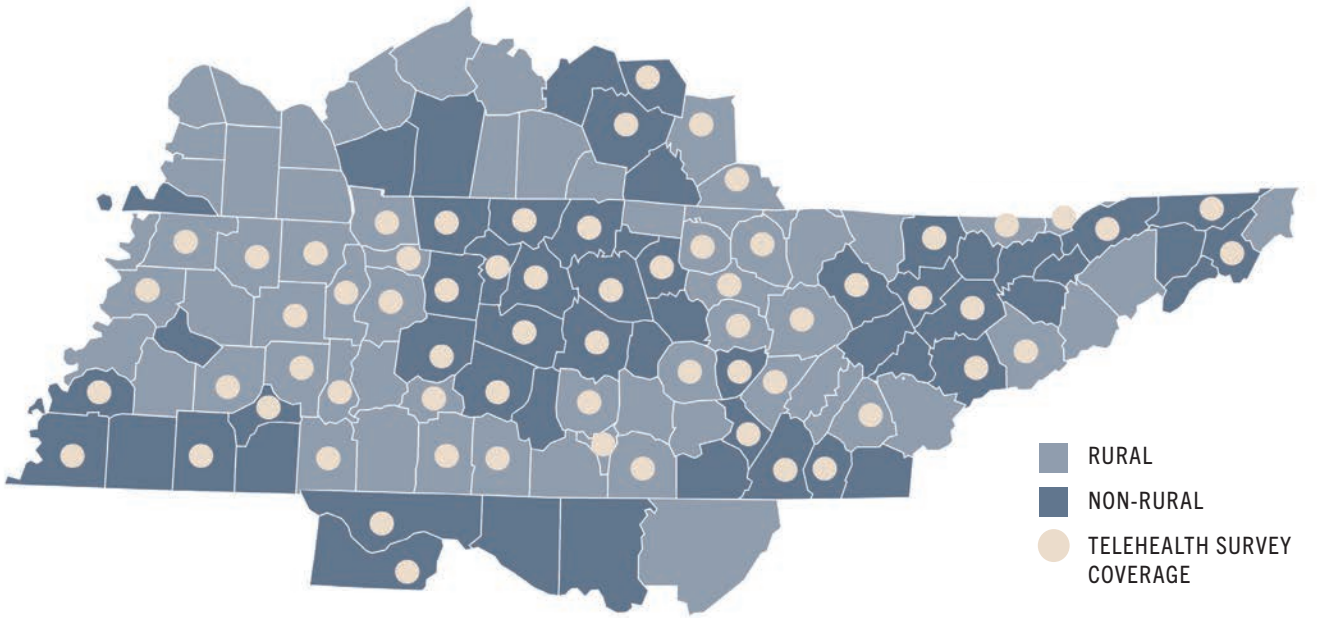
Telehealth refers to the use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health, and health administration. These technologies include videoconferencing, internet, imaging, streaming media, telephone, and wireless communications.

We collected a Telehealth Interest Survey from a variety of stakeholders across the catchment area to gather their input about cancer-related services needed in their local area. The purpose of the survey was to identify potential gaps in services, which VICC may be able to fill using telehealth. Collaboration with local partners will be necessary to avoid duplicating existing services and efforts.

Methods

Data were collected using a convenience sampling methodology to recruit individuals to participate in the telehealth interest survey. Individuals were recruited through posting and distributing flyers at local community organizations, via email listservs, and through personal referrals. The flyer was also emailed to selected partners of health care providers, healthcare organizations, public health agencies, community organizations, and other stakeholders.

→ LOCATION OF TELEHEALTH SURVEY RESPONDENTS



→ Methods

The following definitions were provided to survey respondents as background information before the survey questions.

Telehealth refers to the use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health, and healthcare administration. These technologies include videoconferencing, internet, imaging, streaming media, telephone, and wireless communications.

HPV vaccination Information: The HPV vaccine is safe and effective in preventing the majority of HPV-associated cancers. Despite high rates of HPV-associated cancers in our area, uptake, and completion of the HPV vaccine series remains low (under 40%) resulting in a missed opportunity for cancer prevention. VICC can provide trainings and educational tools to health care providers and staff in our rural provider network via web-based resources, telehealth, and educational opportunities.

VICC Molecular Tumor Board (MTB): A weekly meeting for providers in which complex cancer patients are presented, through a brief case synopsis and review of molecular tumor reports. A multi-disciplinary team then provides guidance on treatment and other issues, including potential germline implications of result. The team consists of medical oncologists, geneticists, molecular pathologists, and bioinformatics researchers.

Telehealth Interest Surveys

Cancer Needs Assessment

Smoking Cessation Clinic: The Tobacco Treatment Clinic at the VICC is a dedicated outpatient clinic for smoking cessation staffed by a Certified Tobacco Treatment Specialist. Through self and provider referrals, outpatient counseling, and other evidence-based strategies for smoking cessation are provided to patients, and a tobacco cessation care plan is formulated. This service will be made available through telehealth at no cost to the patient.

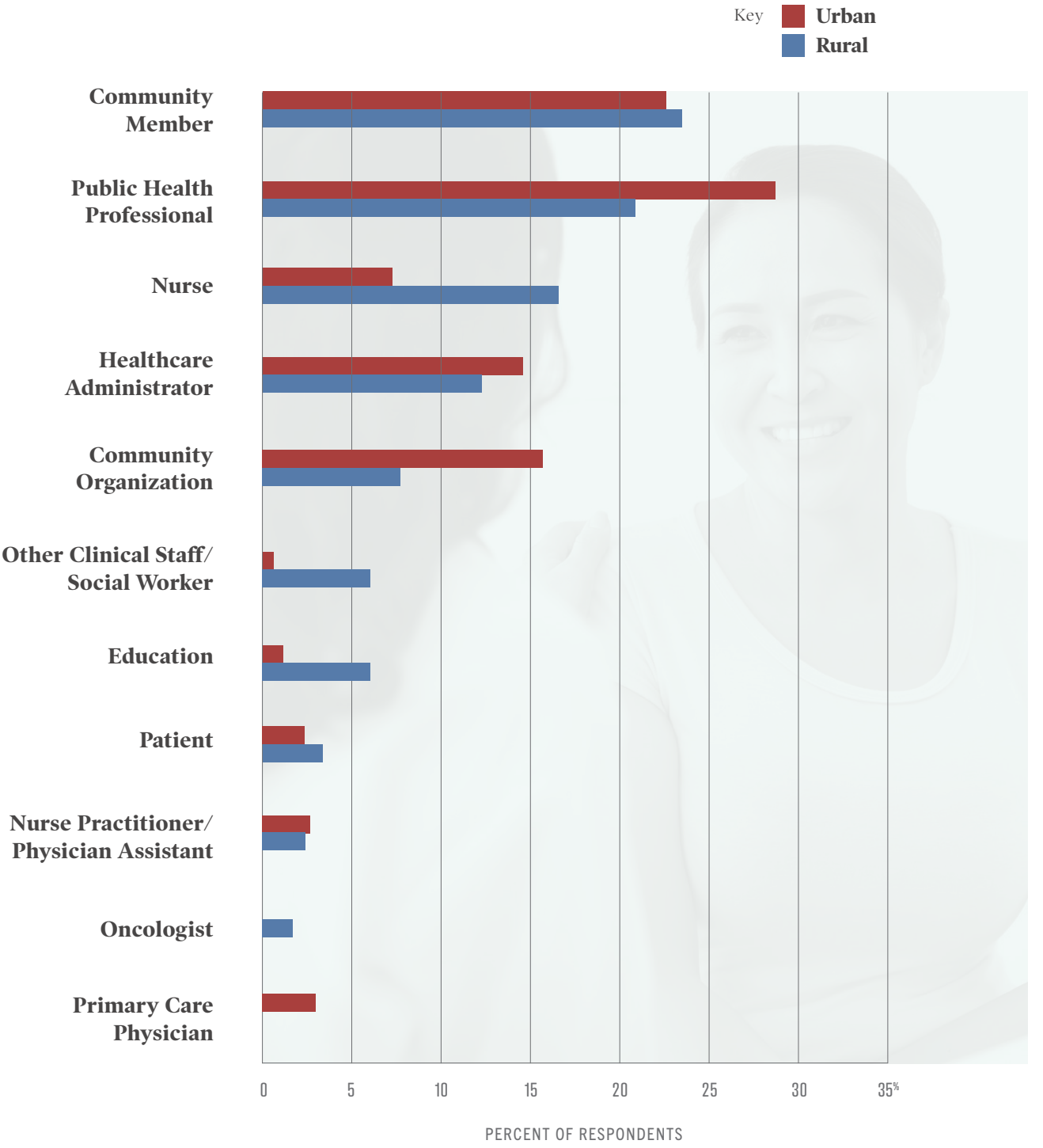
Pre-Screening for Lung Cancer Screening: Lung cancer is the leading cause of death in the U.S., but opportunities for reducing mortality exist via lung cancer screening by chest CT to increase the yield of early diagnosis of lung cancer among high risk individuals. There are two clinical trials at VICC through which high risk populations may receive screening through chest CT, sputum cytology, and pulmonary function tests. Patients may be screened for eligibility and consented through telehealth, after which they travel to VICC for a clinic appointment, with some travel costs reimbursed. Following the clinic visit, a letter is sent to the patient and their primary care provider outlining the findings from the screening tests with follow-up recommendations at no cost.

Cancer Survivor Follow-up Care Program: This program offers a full range of follow-up care designed to meet the individual needs, whether physical, emotional, or practical, of post-therapy cancer survivors. Each survivor receives a personalized Cancer Survivorship Care Plan that serves as a roadmap for future health and wellbeing. This program is equipped to deliver services through telehealth as billable services in rural areas, covered by CMS and most commercial insurers.

VICC Hereditary Cancer Clinic: This clinic is for hereditary cancer assessment and offers genetic risk assessment, counseling, and testing to individuals with or without cancer interested in learning about their inherited cancer risk. This information may be used to guide screening and treatment. Through the clinic, telehealth services are covered by most commercial insurers, and additionally there is coverage through CMS in rural areas.

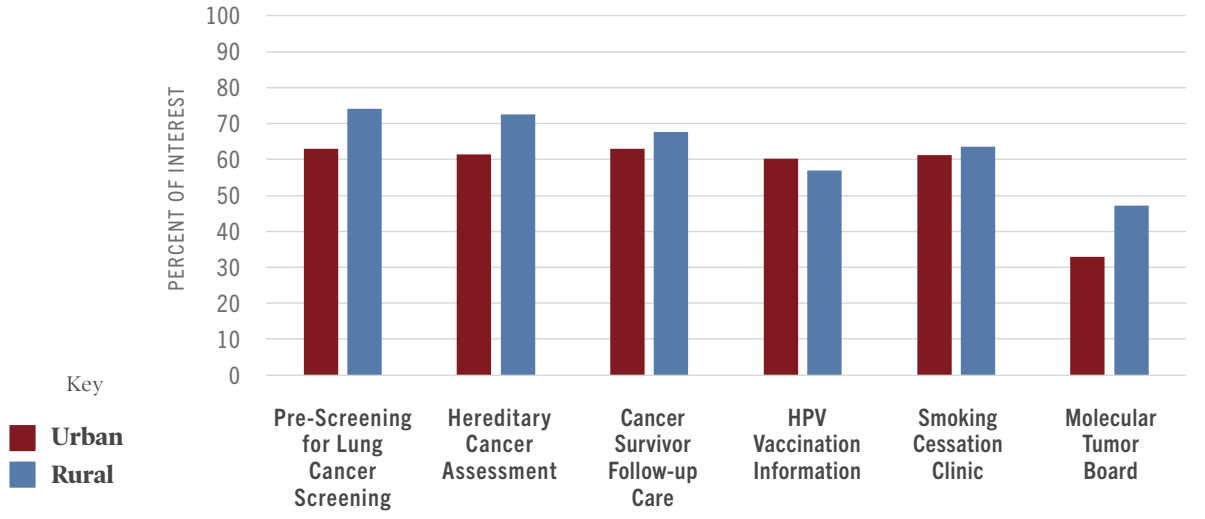
Participant Occupation

BY RURAL CLASSIFICATION



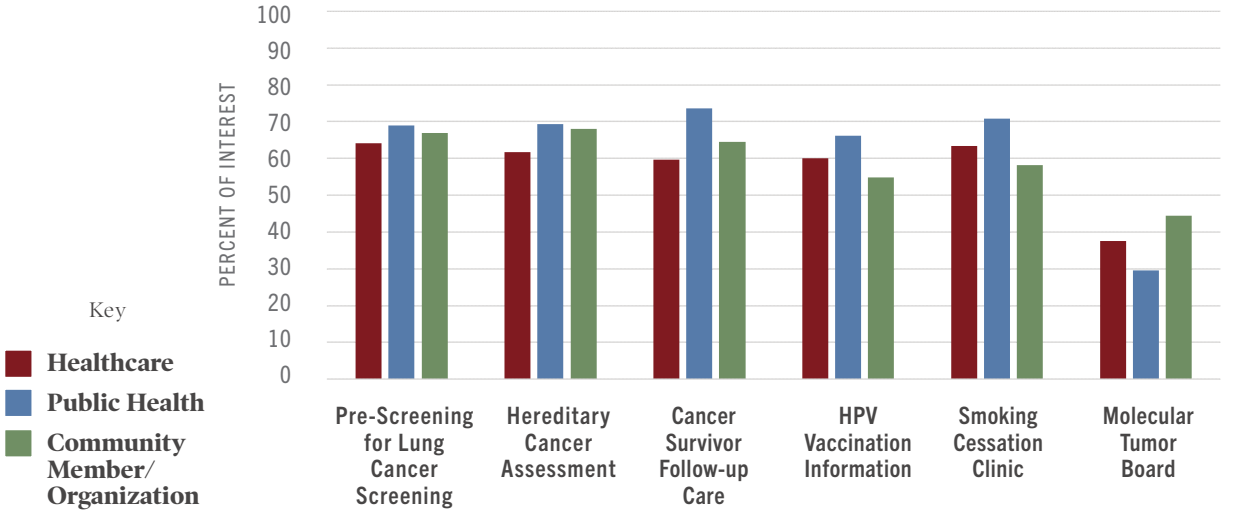
See data in appendix Table 32

→ Results High / Very High Interest in Services by Rural Classification



See data in appendix Table 33

→ Results High / Very High Interest in Services by Healthcare vs Non-Healthcare Occupation



See data in appendix Table 33

Community Feedback

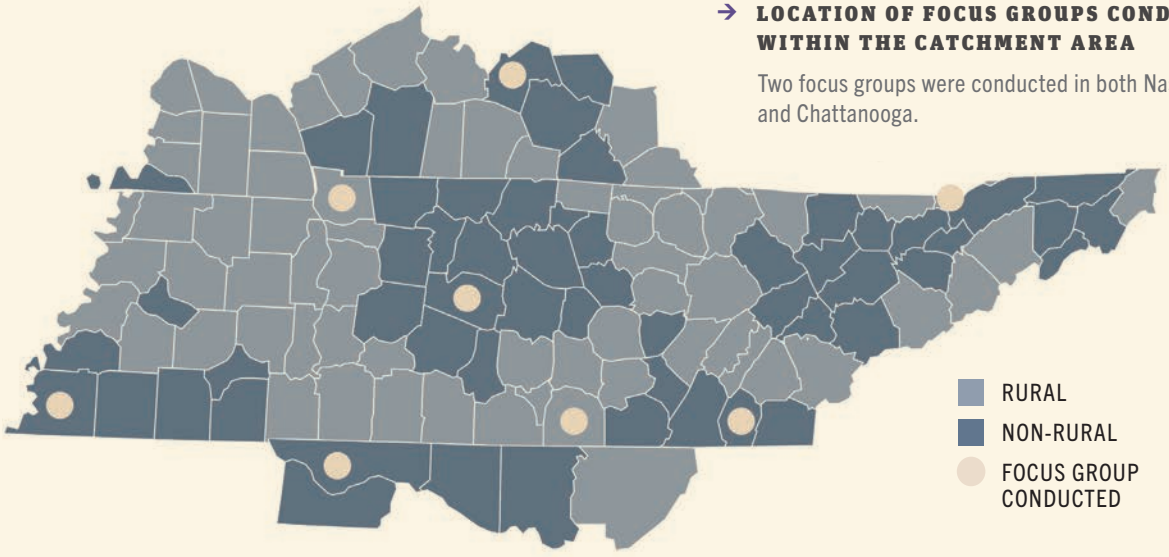
Background

Focus Groups: To identify needs and barriers to cancer care, our staff went into the communities to speak with groups of people living within the catchment area.

Key Informant Interviews: To speak with key stakeholders such as patients, health care providers, healthcare systems, public health agencies, and community organizations and ask questions about the current needs, barriers, and opportunities for cancer prevention and control services in the catchment area.

LOCATION OF FOCUS GROUPS CONDUCTED WITHIN THE CATCHMENT AREA

Two focus groups were conducted in both Nashville and Chattanooga.



→ Methods

Focus Groups: A total of 10 focus groups were conducted in various areas within the catchment area. Participants were recruited through advertisement and distribution of recruitment flyers at community centers, sent via email listservs, posted on social media, and through personal referrals. The focus groups were conducted with participants living within the catchment area that were cancer patients/caregivers, health care providers and representatives from healthcare organizations, public health agencies, and community organizations. A trained moderator and a notetaker were assigned for each of the focus groups. Moderators used a semi-structured discussion guide to ask questions about cancer-related needs in the catchment area and interest in potential telehealth services that could be provided.

→ Interview Category	N	%
State & Local Health Departments	6	19.4
Hospitals/ Networks/ Systems	5	16.1
Cancer-Focused Organizations	3	9.7
Non-Profit Community Agencies	7	22.6
Faith-Based Organizations	1	3.2
Coalitions	4	12.9
Other Community Members	5	16.1
Total	**31**	**100**

Key Informant Interviews: An email invitation was sent to selected partners of health care providers, healthcare organizations, public health agencies, community organizations, and other stakeholders to invite them to participate in an interview. Follow-up calls were made to ensure they received the email. Interested participants contacted study staff by phone or email to schedule an interview.

Qualitative interviews were conducted with key informants representing patients, health care providers, healthcare organizations, public health agencies, community organizations, and other stakeholders. Interviews were conducted over the phone or in person by trained study staff. The interviewer used a semi-structured discussion guide to ask questions about cancer-related needs in the catchment area and interest in potential services that could be provided.

The interview was audio recorded to ensure responses are understood correctly. The recordings were transcribed, and all identifiers were removed from the transcription. The responses to all the interviews were summarized. When specific responses from individual organizations were quoted, the organization or person's name was not identified.

COMMUNITY FEEDBACK

Barriers

Key

For focus groups, geographic differences in frequency of themes mentioned are indicated as follows:

- Rural
- Urban
- No Difference

Policy →

- Eligibility for insurance
- Rules around coverage
- Coverage amount
- Coverage changes
- Insurance discrimination
- For-profit incentives

Community →

- Distance to clinics
- Lack of coordinating care
- Healthcare deserts
- Lack of transportation services
- Outreach methods
- Distressed community
- Environmental toxins
- Food deserts

Organizational →

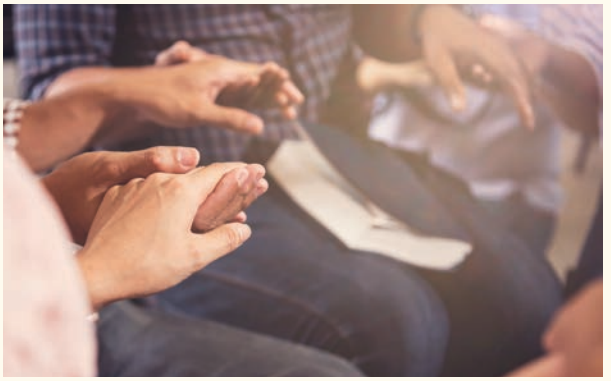
- Lack of treatment centers
- Lack of specialists
- Limited funding
- Limited general providers
- Inadequate quality care
- Poor provider communication
- Quality of technology
- Underutilization
- Outdated provider knowledge

Interpersonal →

- Family management
- Cancer experiences
- Limited social networks

Individual →

- Resource knowledge
- Competing priorities
- Poor literacy
- Personal technology
- Financial constraints
- Health literacy
- Transportation
- Perceived severity
- Insurance status
- Health behaviors
- Mistrust in system
- Avoidance/delay



→ Results

COMMUNITY FEEDBACK

Solutions

Policy →

- **Resource allocation**
- **Invest in transportation**
- Workplace regulations
- Increase tobacco tax
- Provider education
- Environmental policies
- Campaign for change
- Screening incentives

Community →

- **Telehealth**
- Engage church leadership
- Continue effective local resources
- Informational health fairs
- Engage community coalitions
- Community interventions
- Tailored outreach
- Youth early education

Organizational →

- **Provider education**
- **Specialist visits**
- Encourage preventative care
- Up-to-date technologies
- Nutritional workshops
- Continue effective local resources
- Seek funding opportunities

Interpersonal →

- **Family support (specific to telehealth session)**
- Support groups
- Patient testimonials
- Peer mentorship

Individual →

- **Resource awareness**
- **Technology assistance**
- **Patient education**
- **Consider literacy**
- Emotional support
- Navigate system
- Encourage personal responsibility
- Provider recommendations

Strong Desire for Cancer Education

EDUCATIONAL MATERIALS

"We need somebody to come tell us the truth, and what you really should do for it, and what you really know, and what you really don't know."

Barriers to Diagnosis and Treatment of Cancer

INSURANCE

"There's a lady at my church, she has it and she actually stopped her treatment because her insurance just won't pay anymore.... She's 90."

"The medications, for example, I'm going through with my mom and one of the medications, just one of the medications out of a whole handful, her out of pocket cost is $350 a month. Well she's on a very, very limited income as an 85-year-old on Social Security."

FEAR OF DIAGNOSIS

"I had a neighbor who had a tumor that ended up being 12 pounds and she wouldn't even go see the doctor, she was fearful."

TRANSPORTATION

"Because a lot of people don't want to drive outside. Yeah, they just won't do it. They can't. They're afraid because it's so big."

"Transportation is still a barrier in this community. There are still some that don't have a vehicle that would make it to Nashville."

→ Barriers to Solutions for Cancer Care

HOLISTIC APPROACHES

> The mental and emotional aspect is [important], finding support and finding not only the resources, but people that understand what you're going through and can say, *Hey, there is hope, there is people to talk to, there's ways to get help.*

→ Barriers to Telehealth Services for Cancer Care

TELEHEALTH SERVICES

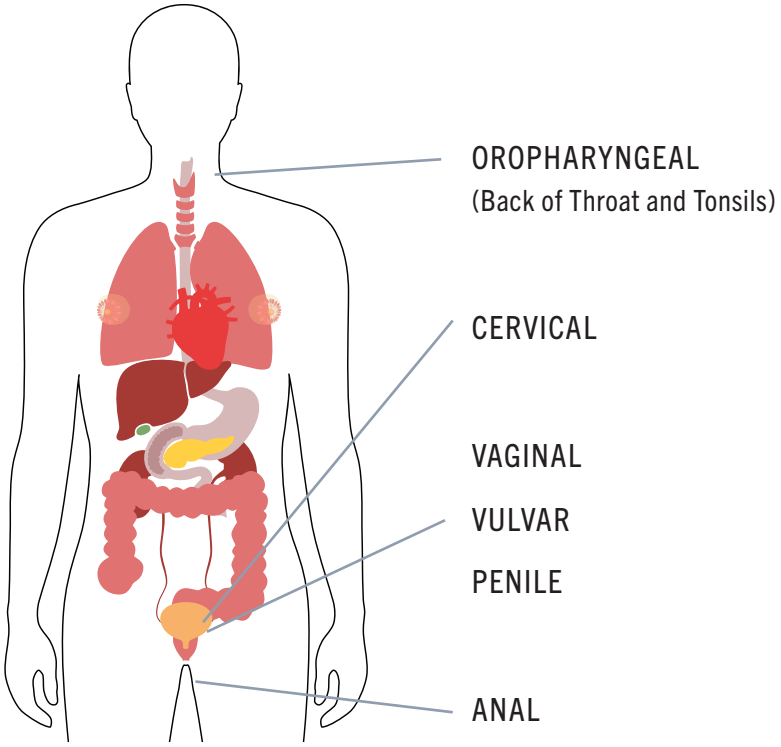
> "Another thing you would have to be concerned with, in such a small town, is if you did set something like that up here or at the Health Department, it needs to be ultra-private because there is nothing but busy bodies and tale carriers."

EVIDENCE-BASED

Strategies for Cancer Prevention

HPV RELATED CANCERS

6 TYPES OF CANCER



HPV VACCINE

ACTION ITEMS

- **Enhancing Access to Vaccination Services**
- **Increasing Community Demand for Vaccinations**
- **Provider- or System-Based Interventions**

Resources

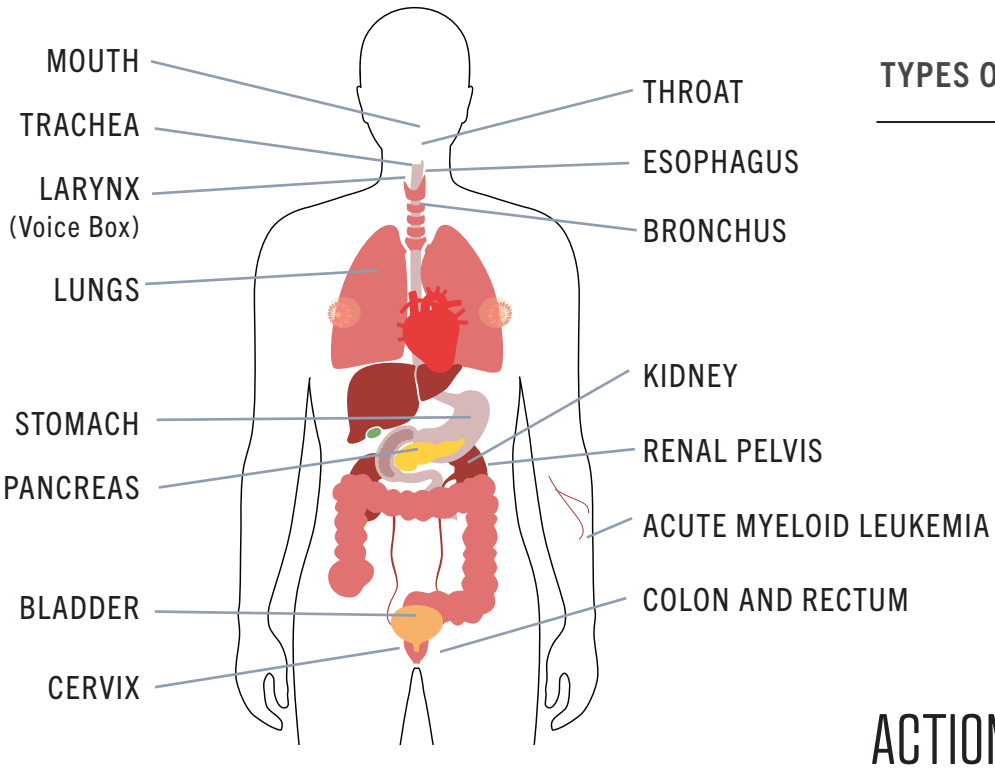
Community Guide:
https://bit.ly/2AVYYyi

Educational Materials:
www.get3shots.org/

Van Dyne et al. MMWR Morb Mortal Wkly Rep 2018;67:918-924.

SMOKING
RELATED CANCERS

15
TYPES OF CANCER



SMOKING
ACTION ITEMS

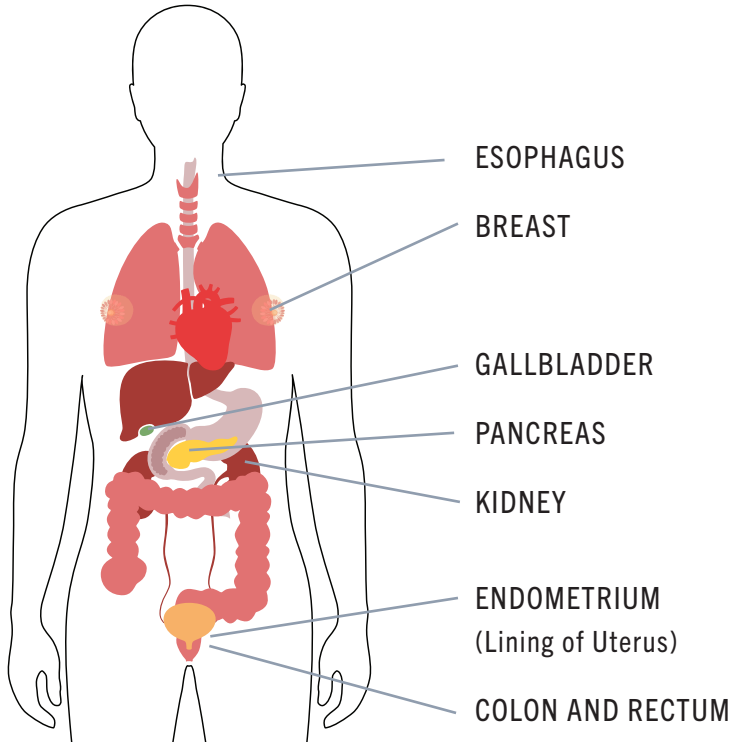
- **Reducing Tobacco Use Initiation**
- **Increasing Tobacco Use Cessation**
- **Decreasing Tobacco Use Among Workers**

Resources

Community Guide:
https://bit.ly/2sHjdLA

OBESITY
RELATED CANCERS

7
TYPES OF CANCER



OBESITY
ACTION ITEMS

- **Interventions in Community Settings**
- **Provider-Oriented Interventions**
- **Technology-Supported Multicomponent Coaching or Counseling Interventions**

Resources

Community Guide:
https://bit.ly/2U8eqPe

Steele et al. MMWR Morb Mortal Wkly Rep 2017;66:1052–1058.

Community-Driven Vision and Goals

Background

During six meetings over the course of 2019, the VICC and MVTCP Community Advisory Boards reviewed and discussed the data and community input gathered through this Community Cancer Needs Assessment. During these meetings, the boards drew on these findings and their diverse perspectives and experiences while engaging in an interactive strategic visioning and goal-setting process.

As a result, the boards produced a combined vision and goals for the next five years, which are listed in the table below. These community-driven vision and goals will guide the directions of VICC's and MVTCP's basic, clinical, and population research as well as collaborative cancer control activities together with our partners across the catchment area.

Vision and Goals

Defined by VICC and MVTCP Community Advisory Boards

Vision for the Future	Goals for 2020-2025
Wellness, healthy living, and longevity for all	→ Empower people to engage in cancer prevention and early detection
Accessible prevention, screening, and care	→ Reduce barriers to accessing care
Quality, affordable, and equitable care	→ Promote evidence-based guidelines and policy
Holistic treatment and support as standard practice	→ Integrate treatment and support for physical, emotional, and other needs
Strong public support and diverse participation in cancer research	→ Raise awareness about importance of cancer research
All cancers prevented or cured	→ Advance new scientific discoveries in prevention, screening, and treatment

State Cancer Plan Goals

Tennessee

Primary Prevention

- Stabilize the incidence rate of melanoma.
- Increase the number of adolescents aged 13-17 years who are up to date with the HPV vaccine series.
- Increase the percentage of Tennesseans at a healthy BMI.
- Increase the number of homes tested annually for radon.
- Decrease the percentage of Tennesseans who currently smoke cigarettes, use electronic vapor products, or smokeless tobacco.

Screening/ Secondary Prevention

- Increase the percentage of at-risk adults screened for lung cancer.
- Increase the percentage of adults aged 50-75 who have fully met the USPSTF colon cancer screening recommendation.
- Increase the percentage of women aged 50-74 who have had a mammogram within the past two years.
- Increase the percentage of women aged 21-65 who have had a Pap test in the past three years.
- Increase the percentage of residents with personal and/or family history of cancer who are at high risk for inherited disease that are offered appropriate genetic counseling and/or testing for inherited cancer predisposition.

Treatment/Tertiary Prevention and Quality of Life

- Increase adherence to evidence-based standards of care for treatment.
- Increase the number of health care professionals trained in effective palliative care techniques.
- Increase the five-year relative cancer survival rate.
- Improve the medical, psychosocial, and educational outcomes and needs of childhood cancer patients in Tennessee.

State Cancer Plan Goals

Kentucky

Primary Prevention

- Reduce the incidence and mortality rates of tobacco-related cancers in all populations.
- Reduce the incidence of cancers related to nutrition, physical activity, and obesity.
- Reduce the incidence and mortality rates of cancers related to environmental carcinogens, with a focus on radon.
- Reduce incidence of HPV-related cancers by increasing initiation and completion of the human papillomavirus (HPV) vaccine series.

Screening/ Secondary Prevention

- Reduce the proportion of late-stage diagnosis and mortality from breast cancer through screening and early detection.
- Reduce the incidence and mortality rates of cervical cancer through prevention and early detection.
- Reduce the incidence and mortality rates of colon cancer through prevention and early detection.
- Increase the percentage of eligible residents who are offered appropriate genetic counseling and/or testing for inherited cancer predisposition.

Treatment/Tertiary Prevention and Quality of Life

- Promote access to and appropriate utilization of quality cancer diagnostic and treatment services for all Kentuckians.
- Promote overall health of Kentucky cancer survivors from diagnosis onward, to increase quality of life.

State Cancer Plan Goals

Alabama

Primary Prevention

- Reduce cancer risk by maintaining a healthy weight, eating a healthy diet, and being physically active.
- Increase vaccination rate for vaccines shown to reduce the risk of cancer.
- Reduce the incidence and mortality related to lung cancer.
- Reduce the risk of skin cancer by decreasing exposure to ultraviolet light.

Screening/ Secondary Prevention

- Reduce incidence of late stage breast cancer and breast cancer mortality.
- Reduce incidence of late stage cervical cancer and cervical cancer mortality.
- Reduce incidence of late stage colon and rectal cancer and colon and rectal cancer mortality.
- Reduce prostate cancer mortality in Alabamians.

Treatment/Tertiary Prevention and Quality of Life

- Increase participation of Alabamians in cancer clinical trials.
- Improve quality of life for cancer survivors and their families.

Research Team Members

Vanderbilt-Ingram Cancer Center (VICC):

Pamela Hull, PhD
Jaleesa Moore, DrPh, MPH
Debra Friedman, MD, MS
Tuya Pal, MD
Anne Washburn, MPH
Kelsey Minix, MPH
Claudia Barajas
Caree McAfee, MA
Ann Tezak, MA, MPH
Natalie Dilts, MPH
Alyssa Reina Rentuza
Kendria Kelly-Taylor
Roberta White
LaNese Campbell
Blessing Nwanguma, MPH

Tennessee State University:

Oscar Miller, PhD
Nora Cox, MPH
Calvin Harris

Meharry Medical College:

Maureen Sanderson, PhD
Mary Kay Fadden, MPH

Community Advisory Boards

We would like to thank the members of the VICC and the Meharry Medical College-Vanderbilt-Ingram Cancer Center-Tennessee State University Cancer Partnership Community Advisory Boards for collaborating on the development of the needs assessment and report.

MVTCP Community Advisory Board Members

Board Members	Organization/Role
Bishop Calvin Barlow, Jr.	Second Missionary Baptist Church
Ira Baxter	Prostate Cancer Coalition of Tennessee/Survivor
Thoris Campbell	Metro Public Health Department of Nashville
Doris McLay	Sisters Network Nashville/Survivor
Carol Minor	American Cancer Society
Joan Clayton-Davis	Community Member
Sheila Dorse	Community Member/Survivor *Co-Chair
Paula Hill	Community Member/Survivor
Corrence Farley	Community Member
Deirdre Johns	Community Member
Georgianne Hooker	Community Member
Billie Leslie	Community Member
Ila McDermott	Community Member/Survivor *Co-Chair
Audrey Oden	Community Member
Reggie Patterson	Community Member/Survivor
Wytness Patterson	Community Member/Survivor
Sharon Peters	Community Member/Survivor
Valerie Scott	Community Member
Cheryl Seay	Community Member

VICC Community Advisory Board Members

Board Members	Organization/Role
Samuel Adunyah, PhD	Meharry Medical College
Angie Allen BSMT (ASCP), MEd	Tennessee Department of Health
Monique Anthony, MPH	Tennessee Department of Health
Mary Barron, RN	Kentucky Primary Care Association
Carolyn Bern, MPA	Alabama Department of Public Health
Ann Bishop, RN, MSN, CMHP, FACHE	Baptist Memorial Health Care Corporation
David Bolt	Kentucky Primary Care Association
Dawn Eaton	Susan G. Komen Foundation
Mary Finch, MBA	Alabama Primary Health Care Association
Carol Garrett	Alabama Department of Public Health
Kiki Hall	Common Table Health Alliance
Beth Hamil	Cancer Support Community East Tennessee
Lora Harnack, MSN, RN	Cumberland Pediatric Foundation
Michelle Heil	American Cancer Society, Inc
Leslie Humphreys, MPA	Tennessee Department of Health
Bill Jolley, MPA	Tennessee Hospital Association
Rebecca Jolley, MBA	Rural Health Association of Tennessee
Vivian Lasley-Bibbs, MPH	Kentucky Department for Public Health
Carolyn Lawhorn, RN	Retired Parish Nurse/Community Advocate
Pastor Rep. Harold M. Love, Jr.	Lee Chapel A.M.E. Church
Gina Myracle	Kirkland Cancer Center
Sandy Obodzinski, MLAS	Gilda's Club Middle Tennessee
Emily Ogden, JD	American Cancer Society Cancer Action Network, Inc
Terri Sabella, RN, JD, CPHQ	Tennessee Primary Care Association
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Partners

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Alabama Department of Public Health
American Cancer Society, Inc.
Baptist Memorial Health Care Corporation
Better Options Tennessee
Butler County Health Department
Chattanooga-Hamilton County Health Department
Common Table Health Alliance
CSB Consulting & Support Services
Dover Family Pharmacy
El Jefe 96.7FM
Florence Lauderdale Public Library
Free Medical Clinic
Hamilton County YMCA
Hancock County Health Department
Highland Ridge Assisted Living
Houston County Health Council
Humphreys County Health Council
Kentucky Cancer Consortium
Kentucky Department of Health
Kirkland Cancer Center
Mary Walker Towers Chattanooga
Memphis Breast Cancer Consortium
Methodist Le Bonheur Healthcare
Montgomery County Health Council
Moore County Public Library
Nashville Health Disparities Coalition
New Life Thru Christ Ministries
Priest Lake Community Baptist Church
Putnam County Family YMCA
Remote Area Medical Clinic in Putnam County
Remote Area Medical Clinic in Rhea County
Second Missionary Baptist Church
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Tennessee Cancer Coalition- Southeast Region
Stewart County Health Council
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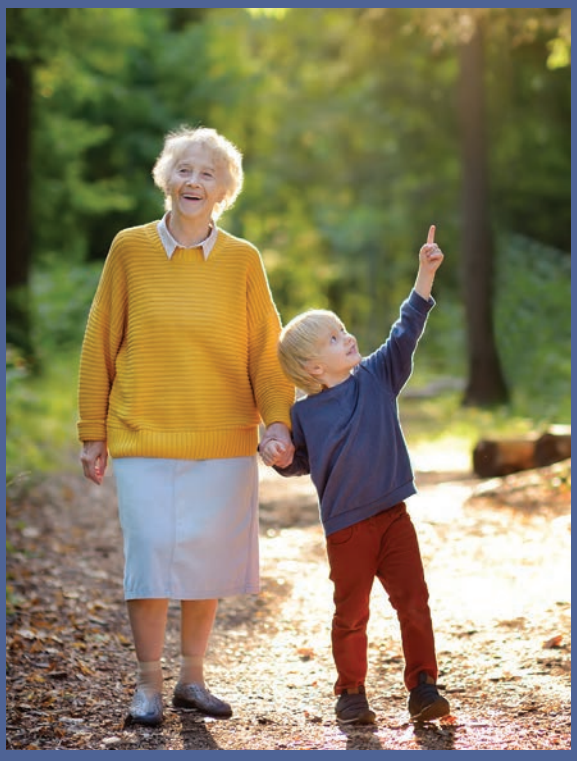
To view data tables, please refer to the appendix:

→ **https://www.vicc.org/community/research**



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