

2016-2020

Utah Comprehensive Cancer Prevention and Control Plan

A roadmap for all those fighting cancer in Utah





STATE OF UTAH

GARY R. HERBERT
GOVERNOR

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LIEUTENANT GOVERNOR

January 1, 2016

Dear Friends,

Cancer has become the second leading cause of death in Utah. Indeed, it is common that our own lives or the lives of people we know and love have been touched by cancer.

The fight against cancer is, however, stronger than ever. We fight by supporting early detection. We fight by protecting ourselves and our children from harmful substances. We fight by supporting medical research and providing state-of-the-art treatment. Last, but certainly not least, we fight by providing cancer survivors and their loved ones with programs and services that address their physical, mental, and emotional needs, thereby increasing their quality of life.

The Utah Cancer Action Network (UCAN) joined this fight in 2001. UCAN members offer their time, talents, and other resources to address primary prevention, early detection, and cancer survivorship by focusing on the high burden priority areas for the state.

The 2016-2020 Utah Comprehensive Cancer Prevention and Control Plan developed by the UCAN will be used to continue this noble fight. This is the fourth comprehensive cancer plan for the state of Utah, and it will guide our efforts to make a positive impact on the lives of those affected by cancer.

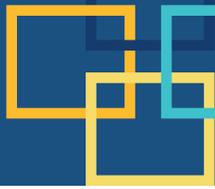
By working together and using this plan, we can increase awareness of how to prevent cancer, detect cancer early, and improve the quality of life for the courageous cancer survivors in our state. Together we can help Utahns live happier, healthier lives.

Sincerely,

A handwritten signature in black ink that reads "Gary R. Herbert".

Gary R. Herbert
Governor





The Utah Comprehensive Cancer Prevention and Control Plan is dedicated to all Utahns whose lives have been affected by cancer, beloved friends and family, caregivers, survivors, and those who have courageously fought and died. We honor your journey and share the vision of a healthy future where cancer is known only as an illness of the past.

We invite everyone to discover their role and responsibility in the fight against cancer by seeking out and supporting cancer prevention, education, screening, treatment, survivorship, research, advocacy, policy, and funding efforts wherever you may work or live. As all may be affected by cancer in some way, it will take all of us to meet this challenge.

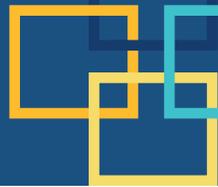
Your friends in the fight,
Utah Cancer Action Network Membership

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Revised 05/2016

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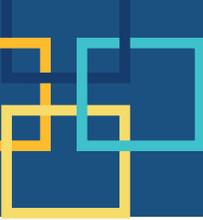
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Introduction to the Plan

Utah Comprehensive Cancer Prevention and Control Plan

The Utah Comprehensive Cancer Control Program (UCCCP), in coordination with the Utah Cancer Action Network (UCAN), developed the Utah Comprehensive Cancer Prevention and Control Plan (State Cancer Plan) as a guide for all those fighting cancer in Utah. This plan provides direction for those involved in the planning, implementation, and evaluation of cancer control efforts. Hospitals and healthcare providers, community-based organizations, worksites, schools, policy makers, and other Utahns will find it contains useful information about the burden of cancer in Utah and evidence-based strategies to reduce cancer risk, find cancers at an early stage, improve treatment, increase the number of individuals who survive cancer, and improve the quality of life for cancer survivors.

Cancer is an evolving problem and addressing it will require unique approaches for the specific needs of Utahns. To accomplish this, UCAN chose timely, evidence-based priority areas to address over the next five years. While these areas encompass the highest priority for the state, they do not represent all areas being addressed by partner organizations. For this reason, the priorities of the State Cancer Plan have been divided into two sections: UCAN Priorities and Collaboration Priorities.

UCAN Priorities

These priority areas represent the highest burden areas for cancer control in the state and reflect UCAN's desire to achieve meaningful and lasting impact during the next five years.

- **Cancer Screening**
- **Physical Activity and Nutrition**
- **Skin Cancer**
- **Survivorship and Quality of Life**

Each UCAN Priority area includes a set of evidence-based *goals*, *strategies*, and *action steps*. *Goals* represent the coalition's overarching ambitions in that particular area. *Strategies* describe the chosen method of reaching the goal. *Action steps* contain specific efforts or projects that individuals and organizations can do to implement each strategy. In addition to goals, strategies, and action steps, each priority area includes *targets for change*. *Targets for change* represent the long-term outcomes expected upon successful implementation of the goals and strategies.

Collaboration Priorities

These priority areas represent topics in which UCAN involvement is important. These priorities will be led by outside organizations which will partner with UCAN to expand reach and improve outcomes.

- **Genomics**
- **Human papillomavirus (HPV)**
- **Radon**
- **Tobacco**

Each Collaboration Priority includes a description of organizations who are involved with the work, a list of *strategies*, and how UCAN can collaborate.

The Planning Process

The process to identify UCAN priority areas began in early 2014. The UCAN Executive Committee reviewed previous State Cancer Plan priorities, existing data, and available resources to determine which priority areas should be addressed in the future. From this information, an initial set of priorities was drafted and voted on by UCAN leadership. These priorities were taken to the larger coalition body and several rounds of discussion and voting occurred before four priority areas were identified: cancer screening, physical activity and nutrition, skin cancer, and survivorship and quality of life. Teams were established around each of these areas, and over several months, these teams developed goals, strategies, action steps, and targets for change to direct coalition efforts.

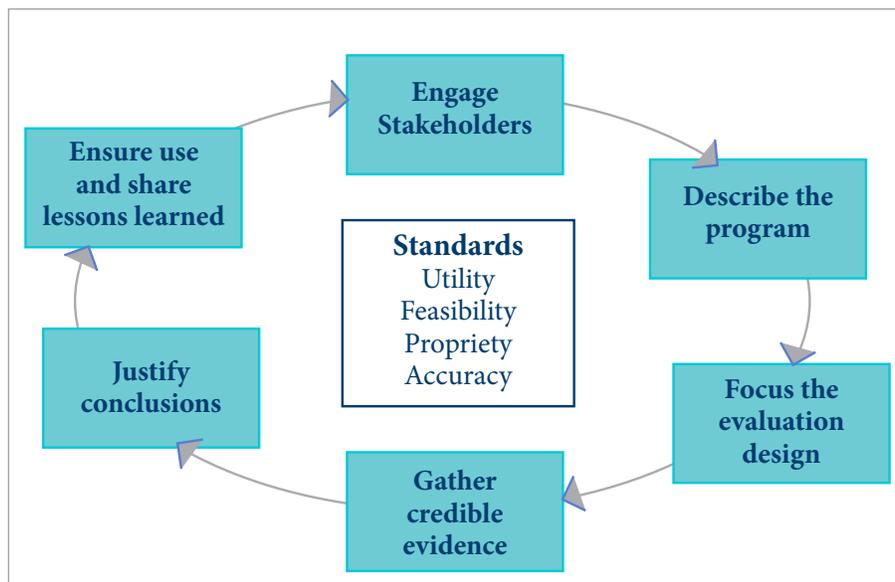
Implementation of the Plan

With the introduction of the 2016-2020 State Cancer Plan, UCAN will move from a team-based approach to a project-based implementation approach. The coalition will implement the plan through specific 12-month projects that will address the plan's goals, strategies, and action steps. UCAN members will champion these efforts through submitting and leading project proposals, developing work plans outlining project activities, recruiting partners both internal and external to the coalition, and evaluating efforts. This project-based approach will provide more flexibility for UCAN members to choose what they work on and how. UCAN Executive Committee members will oversee these projects, provide guidance, and ensure State Cancer Plan goals are being met.

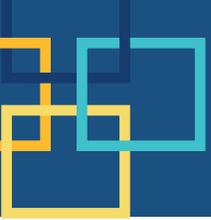
Evaluation of the Plan

Implementation of the State Cancer Plan depends on effective evaluation. For this reason, UCAN will track progress of the *targets for change* on an annual basis and produce an annual report. UCAN commits to ongoing evaluation measuring the outcomes and effectiveness of work being done. The UCCCP evaluation staff will direct evaluation efforts with aid from UCAN members. A separate evaluation plan will be developed based on the Centers for Disease Control and Prevention (CDC) *Framework for Program Evaluation* (Figure 1). The evaluation plan will be a critical counterpart to the State Cancer Plan and direct its evaluation activities. Evaluation efforts and progress toward the targets for change will be highlighted on the UCAN website.

FIGURE 1 Framework for Program Evaluation



Source: Centers for Disease Control and Prevention.



Overview of UCAN

Utah Cancer Action Network

The Utah Cancer Action Network (UCAN) is Utah's comprehensive cancer control coalition, comprised of a diverse, professional group of stakeholders from across the state. Stakeholders represent a variety of groups and interest areas, including state and local governments, private and nonprofit organizations, academic institutions, researchers, physicians, cancer survivors, caregivers, patients, and advocates. UCAN is led by an Executive Committee that oversees coalition activities and determines coalition priorities.

The mission of UCAN is to reduce cancer incidence and mortality in Utah.

Since its inception in 2001, UCAN has worked collectively to ensure continued progress with comprehensive cancer issues across Utah. UCAN provides many opportunities for collaboration among coalition partners through activities designed to address the many facets of cancer prevention and control. UCAN links partners to available resources through regular e-mails and information posted on the UCAN website. UCAN members work to prevent and control cancer through increasing awareness of cancer issues; connecting eligible patients to screening services; increasing cancer screening among Utah's underserved populations; and providing professional, public, and patient education.

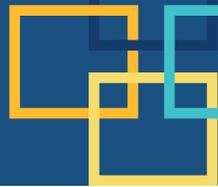
The coalition meets once per quarter to report on events and activities and to provide updates on current cancer issues and sponsorship opportunities.

UCAN activities are funded by the Utah Comprehensive Cancer Control Program (UCCCP) through a federal grant from the Centers for Disease Control and Prevention (CDC). For more information, visit <http://ucan.cc/>.



Partner | Prevent | Advocate | Survive

Overarching Approaches



Overarching Approaches to Cancer Prevention and Control

The State Cancer Plan addresses five overarching approaches to cancer prevention and control. In order to meet the goals of this plan, these approaches have been incorporated into the strategies and action steps listed in the plan.

Collaboration

Statewide cancer prevention and control efforts require strong collaborations between community organizations, healthcare organizations, academic institutions, state and local health departments, policy makers, schools, and businesses.

Quality Improvement

Measuring quality and improving performance in healthcare systems is important for patients to receive quality cancer screening, treatment, and quality-of-life services. Quality improvement will lead to better patient outcomes and decreased healthcare costs.

Disparities

The State Cancer Plan addresses cancer-related health disparities and promotes health equity by improving access to quality and affordable health services for all Utahns regardless of gender, sexual orientation or gender identity, disability, geography, age, socioeconomic status, race, ethnicity, culture, or special healthcare need.

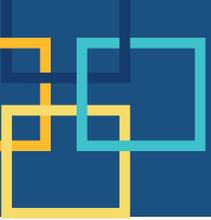
Policy, Systems, and Environmental (PSE) Change

The environments in which people live, work, learn, and play have an impact on their health, including cancer prevention. Policies, systems, and environmental (PSE) changes have the ability to make long-term, sustainable improvements to health by addressing the root causes of poor health. PSE changes are included in the strategies and action steps throughout the plan. In addition, each priority area includes examples of PSE changes that could be implemented in schools, worksites, and community settings.

Research

Research is fundamental to the fight against cancer. It is the key to provide better treatments, identify more effective screening techniques, guide treatment decisions, and ensure the efficacy of the numerous mechanisms employed to defeat this awful disease.

Cutting edge cancer research takes place at oncology practices, universities, and academic cancer centers throughout Utah. Research improves the lives of cancer patients by improving understanding of cancer biology, identifying individuals at increased risk, designing personalized cancer treatment plans, and helping individuals from ever becoming patients in the first place.



How to Use This Plan

The State Cancer Plan represents the largest formal effort to address the burden of cancer in the state of Utah. This plan identifies timely and significant priority goal areas for the state. Success in addressing these areas is dependent on a diverse set of individuals and organizations working collaboratively, sharing resources, and utilizing unique skills. Below are examples of how different groups and individuals can help achieve the goals of the plan.

Hospitals and Healthcare Providers

Healthcare professionals provide individuals and communities with the support necessary to prevent disease and promote health. Healthcare providers can work with patients to prevent and control cancer by routinely asking about health behaviors known to increase cancer risk including tobacco use, physical activity, diet, and in-home radon testing; recommending appropriate cancer prevention vaccines and screening tests; implementing office-based reminders that identify patients due for cancer prevention and screening services; learning about and offering clinical cancer research studies available to patients; and providing cancer patients with a written summary of their care plan. In addition, healthcare providers and hospitals can collaborate with, support, and sponsor community screening programs; participate in clinical care research efforts across the state; and acquire and maintain accreditation and membership from national medical associations.

Local Health Departments

Local health departments are uniquely positioned to understand the needs of local communities and provide quality services to those they serve. Local health departments can address the burden of cancer in a variety of ways, including providing cancer awareness education; supporting community wellness campaigns; promoting prevention of chronic disease through healthy lifestyle behaviors; and providing access to low-cost cancer screenings, radon tests, and other health services.

Community-based Organizations

Many Utah communities face significant challenges that affect the health and well-being of their residents. Poor individual and community health is often associated with other problems including poverty, educational opportunities, crime, access to quality services, and an unhealthy environment. Community-based organizations play a key role in addressing these challenges, and many can promote health as part of the work they do. Community-based organizations can develop and promote community-based disease prevention programs; create a local action plan to reduce barriers to cancer screenings; provide cancer awareness information to the public; enact tobacco-free campus policies; and provide community-based educational forums to address the specific and distinctive needs of cancer survivors including physical, psychological, financial, social, and spiritual needs.

Cancer Survivors

Cancer survivors are one of the most valuable assets in the fight against cancer. Survivors have a personal knowledge of cancer and understand what it takes to overcome this disease. Cancer survivors can get involved by participating in advocacy groups working to support cancer prevention and control, sharing their stories and educating the public, assisting in the development of programs aimed at helping those with the disease, and becoming an advocate of cancer prevention and control.

Worksites

Many Utahns spend a large proportion of their time at work. Worksites can impact the health of individual employees and also play a large role in disease reduction across the state. Employers and worksites can encourage employees to increase physical activity at home and during the work day; encourage workplace participation in wellness programs; provide financial coverage for recommended cancer screenings, including paid time off for employees to get screened; provide healthy foods and beverages in vending machines and cafeterias; enact tobacco-free campus policies; and provide protective clothing to employees applying fertilizers, pesticides, and insecticides as well as sun-protective gear to employees working outside.

Schools

Schools are not only important for the education of our students, but for ensuring a healthy future for our children. Healthy students are more involved in the classroom, exhibit fewer disciplinary problems, and are better able to learn. School organizations can use this plan as an opportunity to promote health as an important aspect of school curriculum. Schools can prioritize health in the classroom by including chronic disease prevention messages in health classes, increasing opportunities for physical activity and education, enacting tobacco-free policies on school campuses, opening facilities to the community during off hours to encourage community health, ensuring ample shade is available for playgrounds and outdoor facilities, providing only healthy foods and beverages on campus and in cafeterias, and providing information to students and faculty about challenges cancer survivors may face as they return to school.

Policy Makers

Public policy plays a critical role in determining the prevalence of chronic diseases, including cancer. In Utah, access to necessary cancer services is not distributed equally across the state. Barriers to quality treatment include lack of access to cancer services due to location, insurance status, race, ethnicity, language, and lack of awareness. Using the information in this plan, a policy maker can influence cancer prevention and control by ensuring that all Utahns have access to affordable, high quality healthcare; raising awareness of cancer as an important health issue; and strengthening and establishing programs that support cancer control.

Utahns

While many Utahns pride themselves on their healthy lifestyles, there are still many things that can be done to decrease the burden of cancer in our state. Utahns can choose to improve their own health and reduce their risk of cancer by quitting tobacco or never starting to use tobacco, eating a primarily plant-based diet, increasing daily physical activity, maintaining a healthy weight, and protecting themselves from exposure to UV light. Testing and remediating homes for radon, limiting the use of pesticides and fertilizers, ensuring our children receive appropriate cancer prevention vaccines, and supporting community efforts to develop and improve public spaces for physical activities can create healthier environments for Utah families. It is important that Utahns discuss cancer screenings with healthcare providers and receive recommended screenings, support cancer control policies, consider enrolling in clinical trials if diagnosed, and assist and provide care for those living with cancer in their lives.

Overview of Cancer Burden

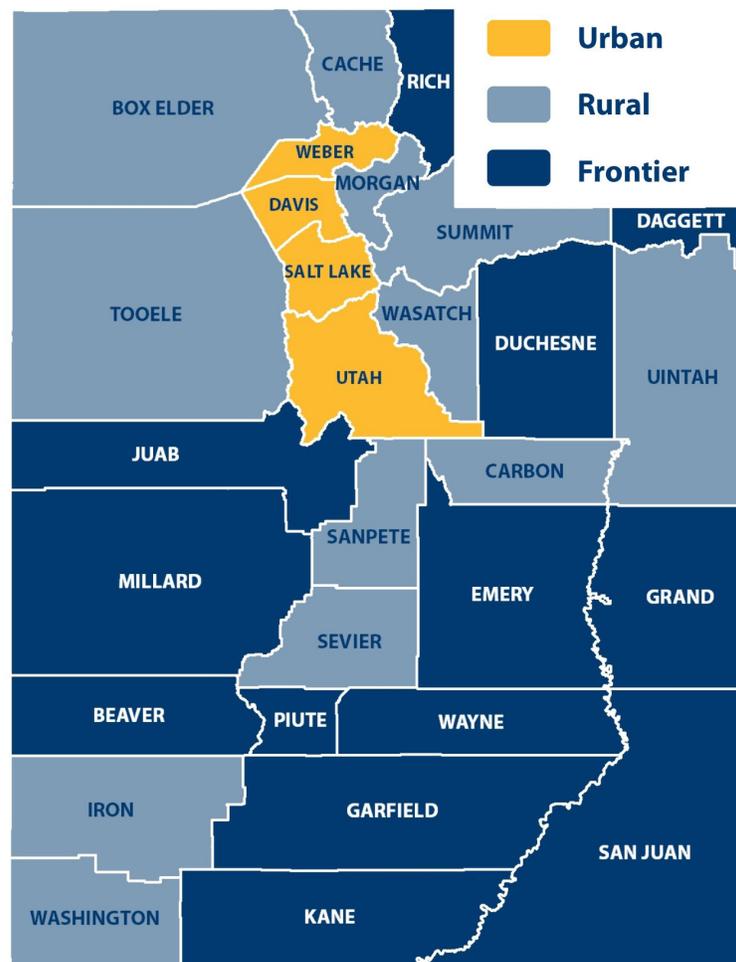
Utah Demographics

In 2014, Utah's population was estimated at 2,942,902. Utah's population continues to grow rapidly each year. The growth rate in Utah is almost double the national growth rate.¹ Utah is the "youngest" state in the nation with the lowest median age of any state at 30.5 years, compared to the national median age of 37.7 years.²

Geography

Utah is the 13th largest state in terms of geographic size; however, most of the state is sparsely populated with 96% of Utah's land classified as rural (more than six but fewer than 100 people per square mile) or frontier (six or fewer people per square mile). Approximately 80% of the state population lives along the Wasatch Front within the greater urban centers of Salt Lake City, Ogden, and Provo. Of Utah's 29 counties, only four are classified as urban, while 12 are rural and 13 are frontier (Figure 2).

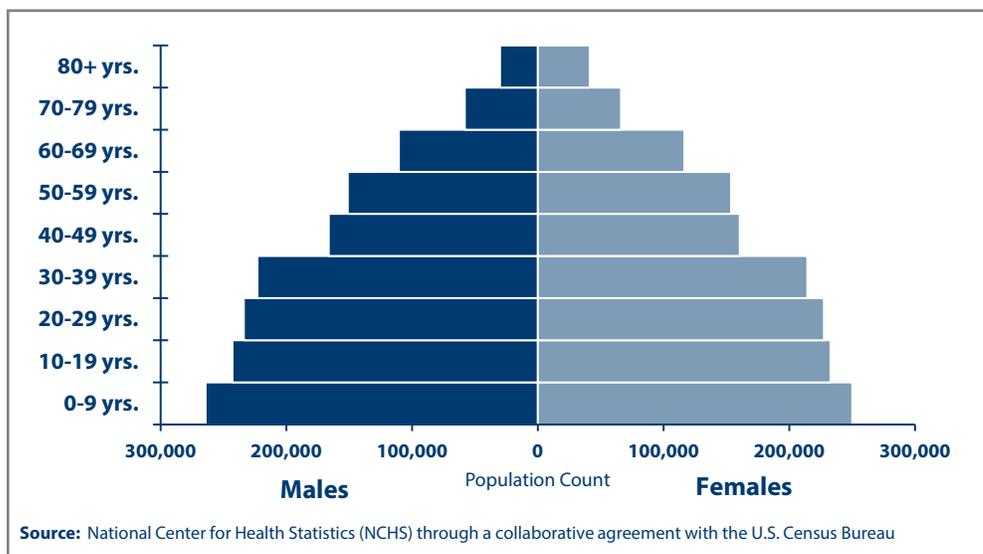
FIGURE 2 Counties in Utah Designation



Age

Utah is the “youngest” state in the nation with the lowest median age of any state at 30.5 years, compared to the national median age of 37.7 years ² (Figure 3).

FIGURE 3 Utah Population Distribution by Age and Sex, 2014



Race and Ethnicity

Utah has limited racial and ethnic diversity with non-Hispanic whites comprising nearly 80% of the population ³ (Figure 4).

FIGURE 4 Summary of Utah Race/Ethnicity Demographics 2014

	Race/Ethnicity	Number in the Population	Percent of Population
Non-Hispanic	White	2,335,011	79.3%
	Black or African American	31,051	1.1%
	American Indian or Alaskan Native	28,583	1.0%
	Asian	66,837	2.3%
	Pacific Islander	26,769	0.9%
	Two or more races	55,891	1.9%
	Hispanic/Latino of Any Race	398,760	13.5%
Total:		2,942,902	

Source: Population Estimates by Age, Sex, Race, and Hispanic Origin for Counties in Utah, U.S. Bureau of the Census, IBIS Version 2014

Utah has a significant refugee population with more than 45,000 refugees being resettled in Utah since 1988.⁴ Approximately 8.2% of Utahns are foreign born.¹

Incidence and Mortality

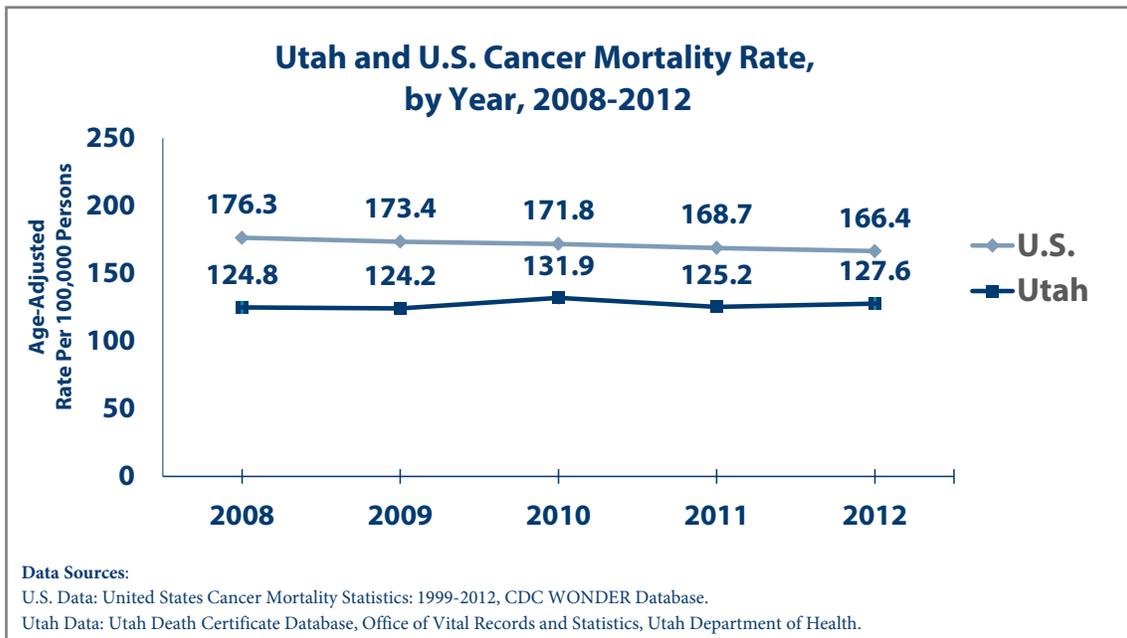
Utah’s cancer incidence rate is approximately 10% lower (Figure 7) than the national rate and the mortality rate is 26% lower⁵ (Figure 5).

Some racial and ethnic groups have a higher risk of being diagnosed with certain cancers, particularly at later stages and therefore are less likely to survive. Certain cancers demonstrate notably large disparities. For example, black men are 50% more likely than white men to be diagnosed with prostate cancer and 200% more likely to die of prostate cancer.⁶ White women are more likely to be diagnosed with breast cancer, though black women are more likely to die of breast cancer. However, such racial/ethnic disparities are not consistent across all cancers. Racial/ethnic disparities in cancer death rates can be partially explained by higher rates of late stage diagnosis that exist among racial and ethnic minorities. Irrespective of insurance status, racial and ethnic minorities are more likely to be diagnosed with late stage cancers that can be detected early by screening or evaluation of symptoms.⁷

Mortality

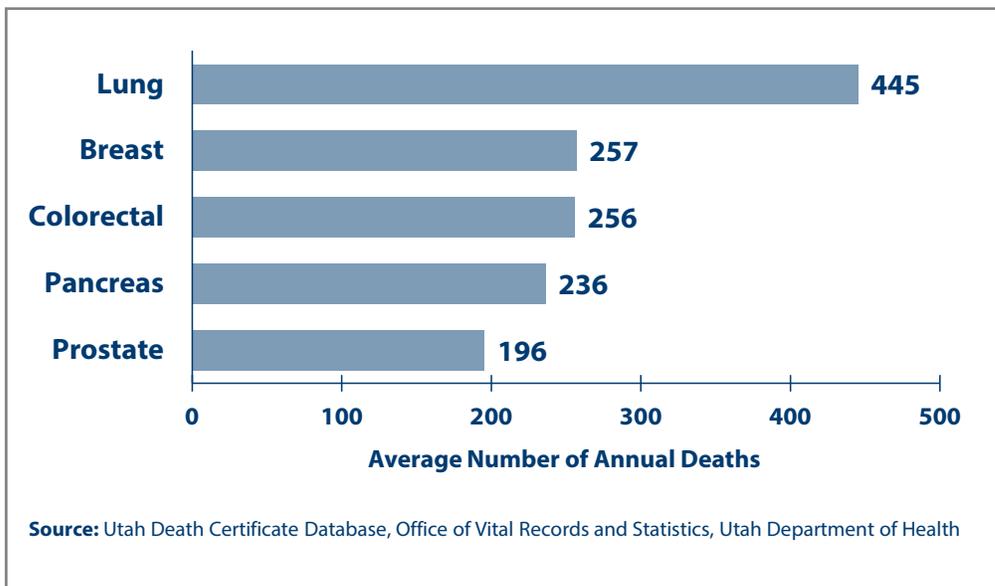
In 2014, 3,033 Utahns died from cancer. Cancer is the second leading cause of death in both Utah and the U.S., exceeded only by heart disease.⁸

FIGURE 5 Utah and U.S. Cancer Mortality Rate by Year, 2008-2012



Lung cancer is the leading cancer cause of death for Utah men. Breast cancer is the leading cancer cause of death for Utah women⁸ (Figure 6).

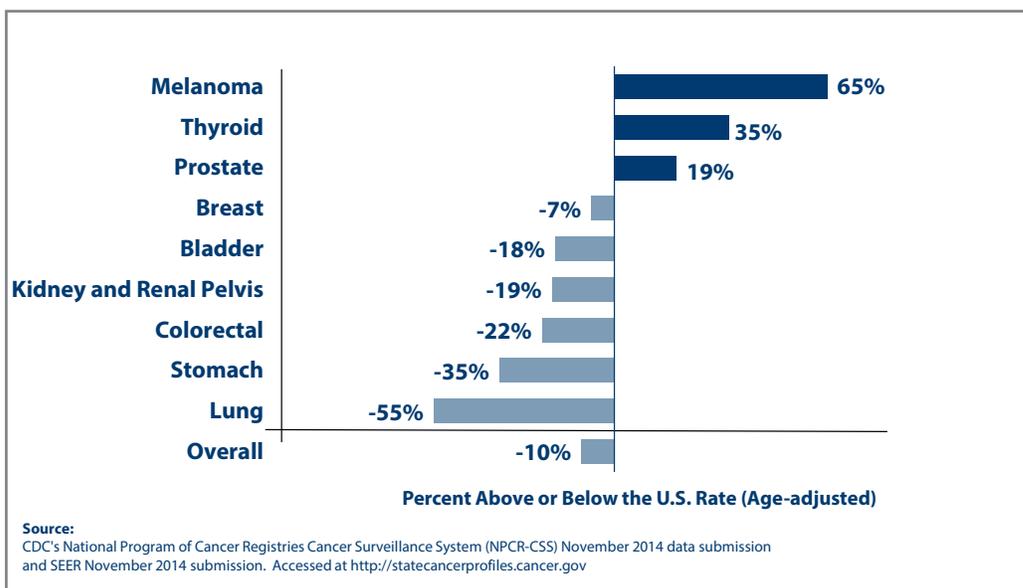
FIGURE 6 Top Five Leading Cancers by Number of Annual Deaths, Utah 2012-2014



Incidence

Utah has the highest incidence rate of melanoma in the U.S., and has a much higher incidence rate of thyroid and prostate cancers.^{5,9}

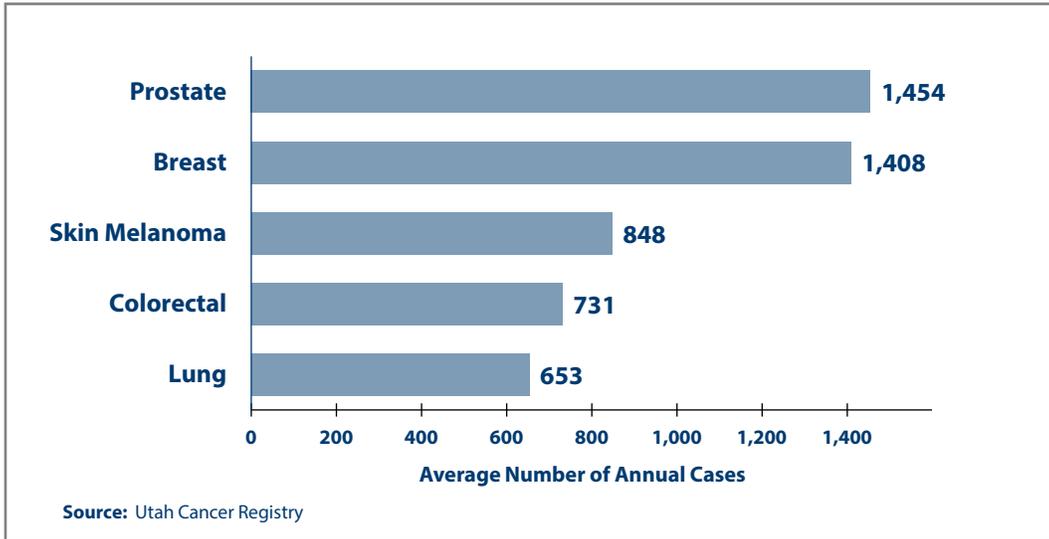
FIGURE 7 Comparison of Utah and U.S. Incidence for Select Cancer Sites, 2008-2012



Utah has the lowest rate of lung cancer in the U.S., as well as the lowest smoking rates.¹⁰

Prostate cancer is the most common cancer diagnosed in Utah men. Breast cancer is the most common cancer diagnosed in Utah women¹¹ (Figure 8).

FIGURE 8 Top Five Leading Cancers by Average Number of New Cases, Utah 2011-2013



All Utahns deserve equal opportunity and access to achieving good health.

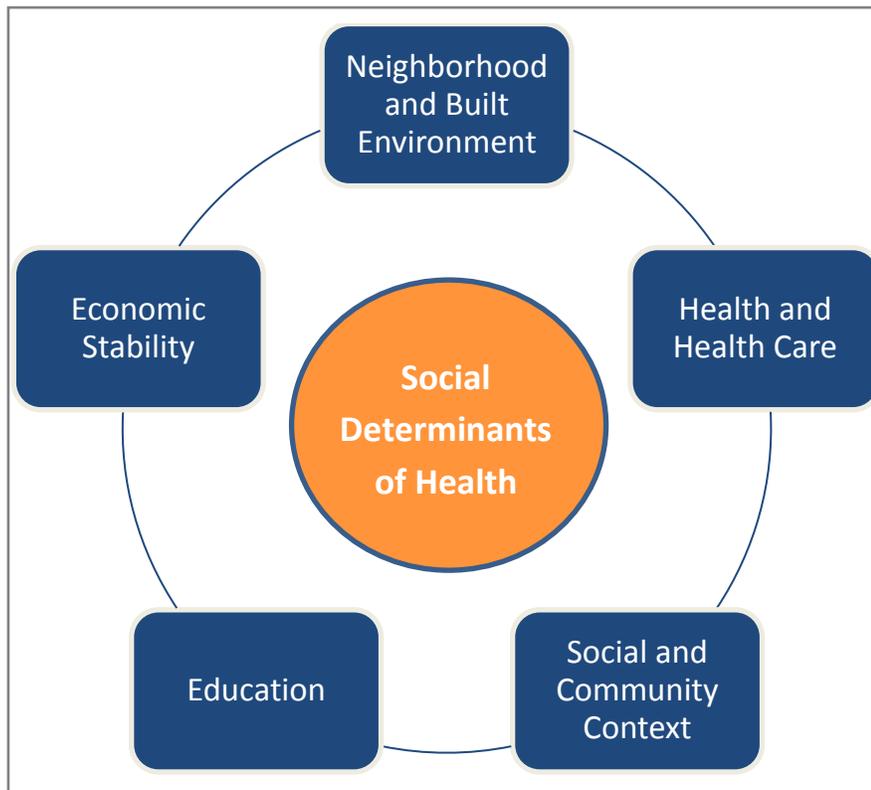
Health Equity

All Utahns deserve equal opportunity and access to achieving good health. UCAN is committed to reducing barriers Utahns face as a result of social conditions and circumstances, including the elimination of health inequities. Throughout this plan, UCAN will work to address the unequal burden of poor health outcomes by identifying and eliminating barriers to health equity in the community and improving access to care.

Health Disparities and Social Determinants of Health

Many factors work together to determine health. An individual's health is in part a product of the social, physical, and economic burden they face, including the quality and safety of our communities, access to education and affordable housing, availability of healthy food, access to healthcare, and the presence of discrimination. These societal factors help to determine health outcomes, which are often not distributed equally in a community. Health disparities are differences in the incidence, prevalence, mortality, burden of disease, and other adverse health conditions or outcomes that exist among specific population groups in the U.S.¹² Health disparities are referred to as health inequities when they are the result of the systematic and unjust distribution of these conditions.¹³ Addressing social determinants of health (Figure 9) is a primary approach to achieving health equity. Health equity is achieved when everyone has the opportunity to attain their full health potential and no one is disadvantaged from achieving this potential because of their social position or other socially determined circumstance.¹³

FIGURE 9 Social Determinants of Health



In order to adequately achieve health equity in Utah, we must move beyond addressing the symptoms of disease and begin to address the root causes in communities. The social and physical environment plays an important role in the prevalence of behavioral risk factors for cancer, such as tobacco use, poor nutrition, accessing preventive healthcare, and physical inactivity. Because of this, any effort to address cancer control in Utah must work to establish programs, policies, and interventions aimed at addressing the social and physical barriers to health in our communities.

Health Insurance and Access to Care

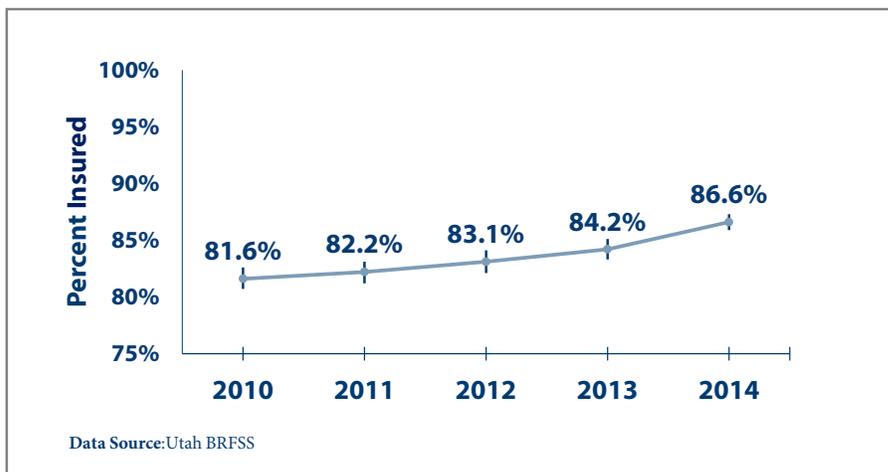
Health insurance provides financial access to the healthcare system. A lack of adequate insurance makes it difficult for people to get the healthcare they need, and when they do get care, they are burdened with large medical bills. Uninsured individuals are less likely to receive medical care, more likely to have poor health status, and more likely to die prematurely. Inversely, access to affordable healthcare helps people stay healthy, avoid or delay the onset of disease, keep diseases they already have from becoming worse or debilitating, lead productive lives, and reduce costs. Despite the importance of insurance, access to healthcare is not distributed equally in Utah. Too many Utahns go without needed medical and preventive care, often because of financial barriers. The Affordable Care Act (ACA) aims to address this issue. The ACA makes healthcare more affordable and accessible in two ways: first, by requiring private health plans to cover certain recommended preventive services without charging a deductible, copayment, coinsurance, or other cost sharing; and second, by expanding access to Medicaid for low-income individuals. Currently, Utah has not chosen to expand Medicaid resulting in more than 53,000 Utahns who are unable to access affordable health coverage. Closing the coverage gap is critical to ensuring all Utahns have access to affordable healthcare.

Many patients, even those with health insurance, may forgo recommended or essential health services. While many factors influence this problem, ensuring that people have a primary care provider is a vital part of receiving appropriate services. People with a reliable source of care have better health outcomes, fewer disparities, and lower costs associated with their care.

Health specialists and primary care providers play an important role in promoting and ensuring the health of the communities they serve. In order to ensure an adequate healthcare system, it is important to track and increase the number of healthcare providers available to patients.

FIGURE 10 Utahns with Healthcare Coverage, Age-adjusted, 2010-2014

Healthcare coverage rates have risen annually in the last five years. In 2014, 86.6% of Utahns indicated that they had healthcare coverage (including health insurance, prepaid plans such as HMOs, or government plans such as Medicare)¹⁴ (Figure 10).



Utah Cancer Action Network Priorities

These priority areas represent the highest burden areas for cancer control in the state and reflect UCAN's desire to achieve meaningful and lasting impact during the next five years.

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Cancer Screening



Cancer Screening

Introduction to Cancer Screening

Finding cancer early is one of the most important ways to increase a person's chance of survival. There is strong evidence that screening for breast, cervical, colorectal, and lung cancers is effective and can detect cancer at an early stage. Routine cancer screenings are the best way to identify and detect cancers early. In addition to detecting cancer early, screening for colorectal and cervical cancers can prevent these cancers by identifying precancerous lesions that can be removed.¹⁵



According to the American Cancer Society, early detection of cancer through screening has been determined to reduce mortality from breast, cervical, colorectal, and lung cancers.¹⁶ Three key priorities have been selected to aid in finding cancer in its earliest stages:

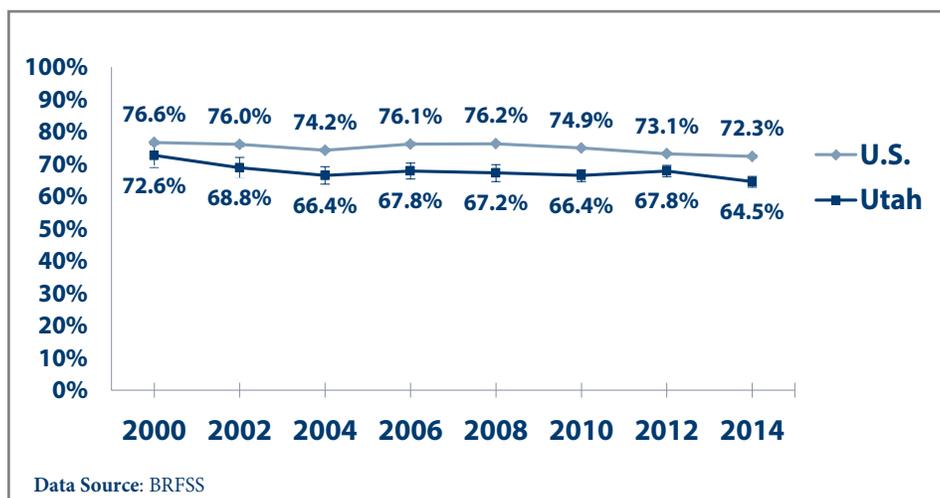
1. Educate and encourage the public to follow screening recommendations.
2. Increase access to quality recommended cancer screenings.
3. Implement healthcare systems-based strategies to increase cancer screening rates.

Cancer Screening in Utah

For the last decade, colorectal cancer screening rates in Utah have closely mirrored national screening rates and shown significant improvement.¹⁹ Utah adults (aged 50-75) following colorectal cancer screening recommendations have risen from 48.0% in 2000 to 71.0% in 2014*.¹⁴

The rates of mammography and Pap test screening are currently and have been lower in Utah compared to national rates. Additionally, over the past 15 years, both mammography and Pap tests in Utah have been decreasing*. Mammography screening in the past two years among women aged 40 and above decreased from 72.6% in 2000 to 64.5% in 2014¹⁷ (Figure 11). Among women aged 18 and above (age-adjusted), the percentage who have had a Pap test decreased from 81.8% in 2000 to 69.5% in 2014.¹⁸

FIGURE 11 Mammography in the Past Two Years Among Women 40+, Utah and U.S. 2000-2014

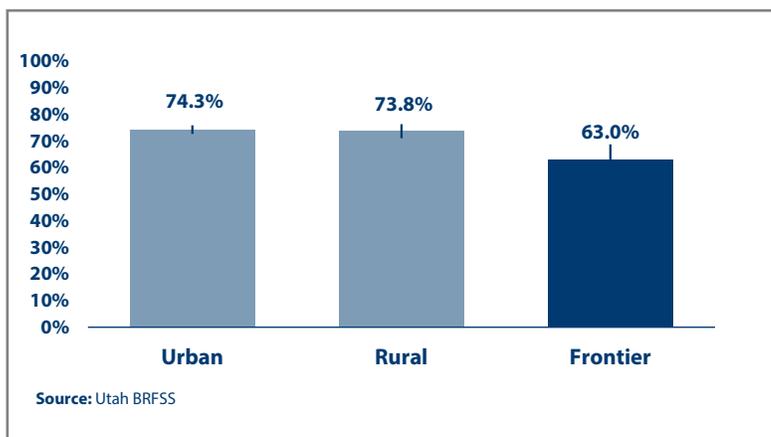


* BRFSS survey methodology changed in 2010, caution should be used in comparing data between old and new methodologies. In 2010 BRFSS began conducting surveys by cellular phone in addition to landline phones and also adopted new sampling and weighting methodologies. More details about these changes can be found at: <http://health.utah.gov/opha/publications/brfss/Raking/Raking%20impact%202011.pdf>.

Disparities in Cancer Screening

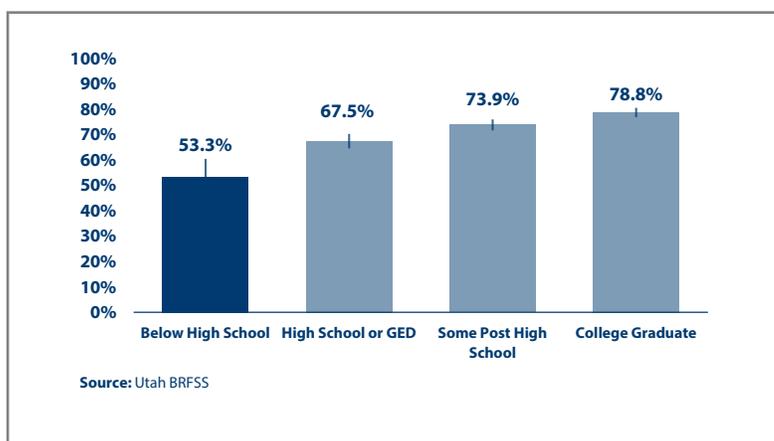
Utah women living in frontier communities (Figure 12) with lower income and lower education levels have significantly lower rates of mammography screening. The only racial/ethnic group of women to have significantly lower rates of mammography screening are American Indian/Alaskan Natives. From 2010 to 2014, an estimated 54.4% of American Indian/Alaskan Native women 50-74 years of age had received a mammogram in the past two years.¹⁴

FIGURE 12 Mammography in the Past Two Years Among Women 50-74, Utah 2000-2014



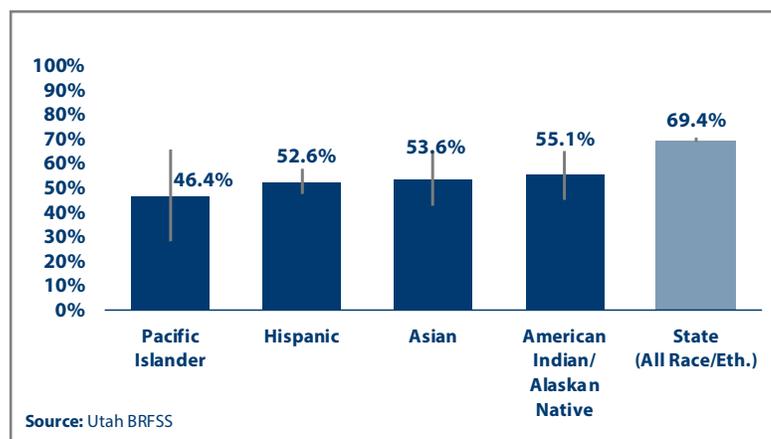
Utahns living in frontier areas have lower rates of colorectal cancer screening. There is no difference between colorectal cancer screening rates among men and women. Colorectal cancer screening rates are significantly higher among individuals with higher income and education levels¹⁴ (Figure 13).

FIGURE 13 Colorectal Cancer Screening Among Adults 50-74, by Education Level, Utah 2013-2014



Pacific Islanders, Hispanics, Asians, and American Indian/Alaskan Natives in Utah have lower rates of colon cancer screening compared to the state rate¹⁴ (Figure 14).

FIGURE 14 Colorectal Cancer Screening Among Adults 50-74, by Race/Ethnicity, Utah 2010-2014



Goal: Increase the number of Utahns who receive recommended cancer screenings.

Strategy A: Encourage the public to receive recommended cancer screenings by providing education using evidence-based communication methods.

Collaboration

Research

Disparities

What will success look like? The public will have received education that positively influences their decision to receive recommended cancer screenings.

Action Steps

- 1 Increase public knowledge about cancer screening facts and guidelines through multiple avenues, including small media and provider recommendation.
- 2 Provide culturally competent and cancer-specific educational materials, including small media, in multiple languages to targeted communities.
- 3 Provide cancer-specific materials, including small media, that meet literacy and numeracy skills of the target population.
- 4 Coordinate with state and local health partners to promote cancer screening opportunities throughout the state.

National Strategy Alignment: Centers for Disease Control and Prevention. (2014). Increasing Population-based Breast and Cervical Cancer Screenings: An Action Guide to Facilitate Evidence-based Strategies. Atlanta, GA. Centers for Disease Control and Prevention. (2013). Increasing Colorectal Cancer Screening: An Action Guide for Working with Health Systems. Atlanta, GA.

Strategy B: Decrease structural and financial barriers to cancer screenings.

Collaboration

Research

Disparities

What will success look like? All Utahns will have access to affordable cancer screenings.

Action Steps

- 1 Increase awareness related to healthcare reform and subsequent changes in coverage for recommended cancer screenings.
- 2 Educate underinsured and uninsured Utahns about available programs offering cancer screenings that are provided at little or no cost.
- 3 Advocate for programs that provide cancer screenings at little or no cost.
- 4 Encourage the use of in-home testing options, such as fecal occult blood test (FOBT) or fecal immunochemical tests (FIT) for colorectal cancer screening.
- 5 Support partnerships with organizations that provide patient navigation, case management, and community health worker services.
- 6 Support initiatives to identify unrecognized barriers to screening, including barriers that affect disparate populations.

National Strategy Alignment: Centers for Disease Control and Prevention. (2014). Increasing Population-based Breast and Cervical Cancer Screenings: An Action Guide to Facilitate Evidence-based Strategies. Atlanta, GA; Centers for Disease Control and Prevention. (2013). Increasing Colorectal Cancer Screening: An Action Guide for Working with Health Systems. Atlanta, GA.

“The discovery and subsequent treatment of my breast cancer was a direct result of having a routine mammogram.”

- Kara Herron, breast cancer survivor
Go to <http://ucan.cc/> to read the full story



Strategy C: Increase the number of patients who receive recommended cancer screenings in healthcare settings through evidence-based strategies and policy change.

Collaboration Policy, Systems, and Environmental Change

What will success look like? Healthcare providers will adopt policy changes that aim to increase the uptake of recommended cancer screenings.

Action Steps

- 1 Offer education to providers on strategies to educate patients about recommended screenings and their value.
- 2 Encourage clinics to adopt a policy to discuss risk factors that affect routine screening recommendations (e.g., family history and genetics) with patients.
- 3 Encourage clinics to adopt a policy to assess cancer screening during a patient’s periodic health examination.
- 4 Encourage clinics to adopt a policy to assess clinic workflow and implement a reminder system for identifying patients requiring cancer screenings including Electronic Health Record (EHR) integration.

National Strategy Alignment: Centers for Disease Control and Prevention. (2014). Increasing Population-based Breast and Cervical Cancer Screenings: An Action Guide to Facilitate Evidence-based Strategies. Atlanta, GA; Centers for Disease Control and Prevention. (2013). Increasing Colorectal Cancer Screening: An Action Guide for Working with Health Systems. Atlanta, GA.

Policy, Systems, and Environmental (PSE) Change Approaches for Cancer Screening

Setting	Non-PSE Approach	PSE Approach
Healthcare Organizations	Recommend to a patient that he or she is due for a cancer screening test.	Establish an electronic and paper reminder system to notify providers to recommend screenings, and to patients to get screenings. Establish clinical staff roles for following up on screening referrals and appointments.
Workplace	Provide information to employees about the importance of routine cancer screenings.	Provide incentives for employees to get cancer screenings, including paid time off, monetary incentives, or incentives for workplace wellness programs.
Community	Host a community health fair where	Contract with a community organization to regularly provide mobile screening and diagnostic services to disparate neighborhoods and/or frontier populations in the community.

Strategy D: Encourage employers to implement policies that increase recommended cancer screenings among employees.

Collaboration Policy, Systems, and Environmental Change

What will success look like? Employers will have implemented policy changes to encourage and facilitate employees receiving recommended cancer screenings.

Action Steps

- 1 Encourage employers to implement policies that allow employees to receive recommended cancer screenings during work time including the use of a mobile screening van or paid time off.
- 2 Encourage employers to provide education about recommended cancer screenings, including insurance coverage, to employees.
- 3 Encourage employers to incorporate cancer screenings into worksite wellness programs.

National Strategy Alignment: Centers for Disease Control and Prevention. (2014). Increasing Population-based Breast and Cervical Cancer Screenings: An Action Guide to Facilitate Evidence-based Strategies. Atlanta, GA; Centers for Disease Control and Prevention. (2013). Increasing Colorectal Cancer Screening and Promoting Screening Quality: An Action Guide for Engaging Employers and Professional Medical Organizations. Atlanta, GA.



Utah adults 50-75 are still **NOT** getting screened for colorectal cancer

Source: Utah BRFSS 2014

UCAN has taken the 80% by 2018 pledge to increase colorectal cancer screening rates to 80% by the year 2018. The 80% by 2018 is a national initiative that was launched by the National Colorectal Cancer Roundtable (NCCRT). The first step in reaching this goal is to create a Colorectal Cancer Roundtable that will be a subgroup of UCAN. The subgroup will focus on implementing the strategies developed by the NCCRT and their partners including education, decreasing barriers to screening, and promoting policy and systems changes.

Targets for Change

Increase the proportion of adults (aged 50-75) who receive a colorectal cancer screening based on the most recent USPSTF guidelines.

71.1% Baseline (2014 BRFSS)	80% Utah 2020 Target
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Data Source: BRFSS

Aligns with: Healthy People 2020, C-16; Comprehensive Cancer Control National Priorities, National Colorectal Cancer Roundtable

Reduce the rate of colorectal cancer diagnosed at an advanced (regional or distant) stage among adults aged 50 to 74.

36.08 per 100,000 population Baseline (2012 SEER)	32 per 100,000 population Utah 2020 Target
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Data Source: Utah Cancer Registry/SEER

Aligns with: Healthy People 2020, C-16; Comprehensive Cancer Control National Priorities

Increase the proportion of women (aged 50-74) who receive a breast cancer screening based on the most recent USPSTF guidelines.

73.3% Baseline (based on percentage of women who received a mammogram in the past 2 years, 2014 BRFSS)	76% Utah 2020 Target
---	--------------------------------

Data Source: BRFSS

Aligns with: Healthy People 2020, C-17

Reduce the rate of breast cancer diagnosed at an advanced (regional or distant) stage among women aged 40 to 74.

86.45 per 100,000 population Baseline (2012 SEER)	80 per 100,000 population Utah 2020 Target
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Data Source: Utah Cancer Registry/SEER

Aligns with: Healthy People 2020, C-11

Targets for Change

Increase the proportion of women (aged 21-65) who receive a cervical cancer screening based on the most recent USPSTF guidelines.		Reduce the rate of cervical cancer diagnosed at an advanced (regional or distant) stage among women aged 20 to 64.	
77.6% Baseline <small>(based on percent of women who received a Pap test in the past 3 years, 2014 BRFSS)</small>	83% Utah 2020 Target	2.88 <small>per 100,000 population</small> Baseline <small>(2012 SEER)</small>	2.5 <small>per 100,000 population</small> Utah 2020 Target
Data Source: BRFSS		Data Source: Utah Cancer Registry/SEER	
<i>Aligns with: Healthy People 2020, C-15</i>		<i>Aligns with: Healthy People 2020, C-15</i>	

Reduce the rate of lung cancer diagnosed at an advanced (regional or distant) stage among adults aged 55 to 74.	
69.16 <small>per 100,000 population</small> Baseline <small>(2012 SEER)</small>	62 <small>per 100,000 population</small> Utah 2020 Target
Data Source: Utah Cancer Registry/SEER	
<i>Aligns with: Healthy People 2020, C-2</i>	

Physical Activity and Nutrition



Physical Activity and Nutrition

Introduction to Physical Activity and Nutrition

Diet, physical activity, and weight play an important role in determining an individual's cancer risk. Maintaining recommended levels of physical activity and eating a diet filled with a variety of plant foods such as vegetables, fruits, whole grains, and beans helps lower the risk for many cancers. Weight management is also important. More than two-thirds of American adults are overweight or obese,²⁰ a risk factor for several types of cancer, including breast, colorectal, kidney, and esophageal.

It is estimated that one-third of all cancers, or 345,000 cases in the U.S., are preventable through improved diet, physical activity, and weight management.²¹ To reduce the risk of chronic disease and promote overall health, including reducing the risk of cancer, it is important to eat a nutritious diet and be physically active. This includes the following recommendations:²²

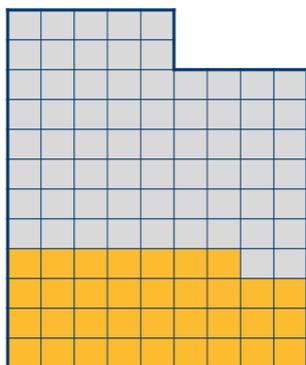
- Be as lean as possible without becoming underweight.
- Be physically active for at least 30 minutes every day.
- Avoid sugary drinks and limit consumption of energy-dense foods.
- Eat more of a variety of vegetables, fruits, whole grains, and legumes such as beans.
- Limit consumption of red meats (such as beef, pork, and lamb) and avoid processed meats.
- If consumed at all, limit alcoholic drinks to 2 for men and 1 for women a day.
- Limit consumption of salty foods and foods processed with salt (sodium).
- Don't use supplements to protect against cancer.
- For maximum health benefits, it is best for mothers to breastfeed exclusively for up to 6 months.
- After treatment, cancer survivors should follow the recommendations for cancer prevention.



Burden in Utah

In 2014, Utah ranked 45th lowest in adult (aged 18+) self-reported obesity rates with 25.7% of Utahns reporting obese (BMI 30+) compared to the national rate of 29.5%.²³ In 2008, Utah obesity-related adult healthcare expenditures were estimated at \$485 million.²⁴

Historically, Utah has higher fruit consumption²⁵ and slightly higher vegetable consumption²⁶ compared to national rates. Data shows little increase or decrease in these rates over time. Fruit and vegetable consumption are generally lower among those with lower education and income.



ONLY 34% of Utah adults and youth eat the Recommended Amount of Fruit Everyday

Source: 2013 Utah BRFSS and YRBS

In 2013, 34.2% of Utah adults (age-adjusted) and 34.3% adolescents in grades 9-12, ate the recommended two or more serving of fruit per day. During this same time, 17.5% of Utah adults (age-adjusted) and 14.2% of Utah adolescents ate the recommended three or more serving of vegetables per day.¹⁴

Research has shown physical activity and maintaining a normal weight lowers the risk of breast cancer. Physical activity has also been linked with lower risk of recurrence of cancer and higher quality of life following treatment.²⁷

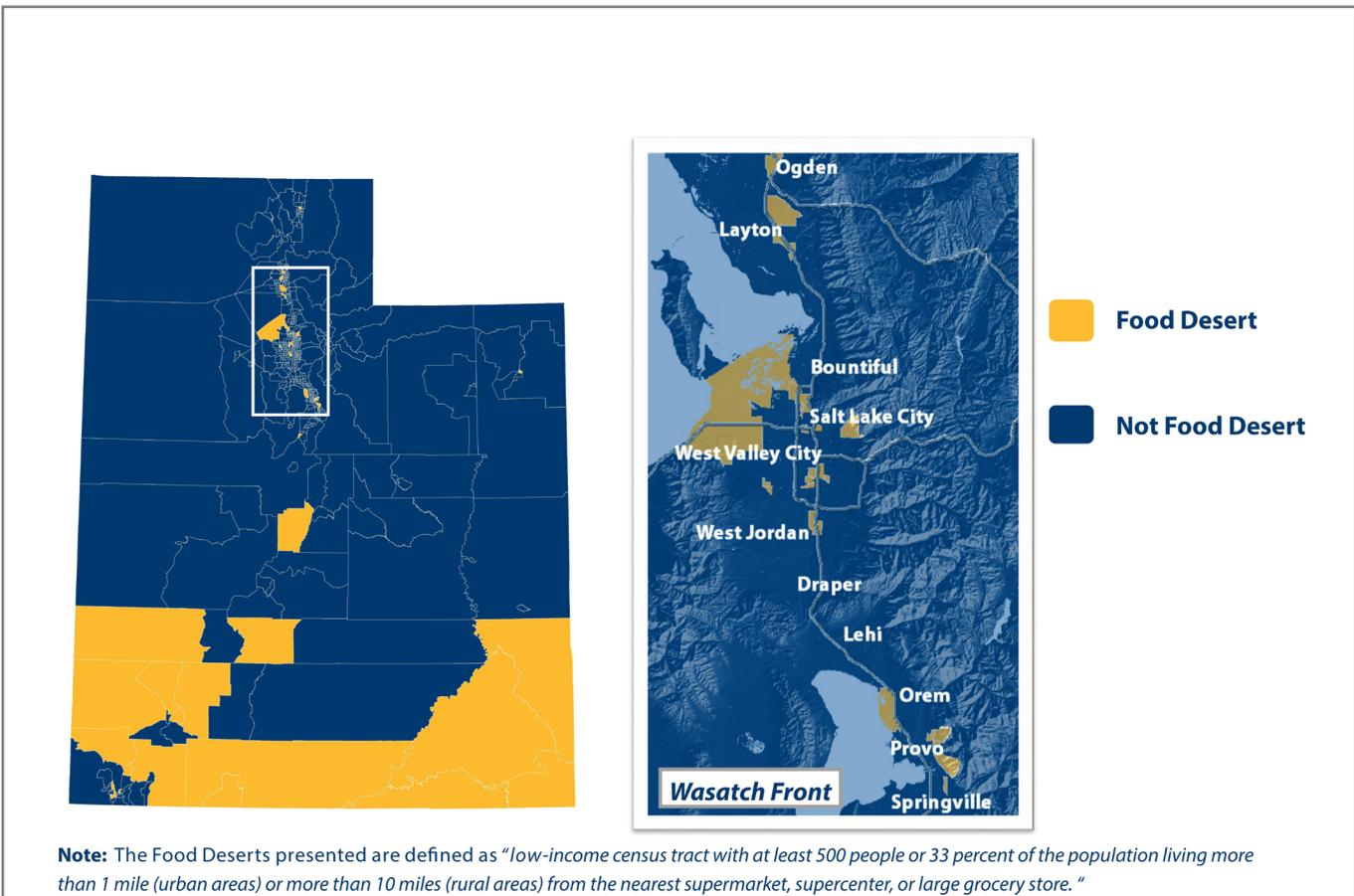
Compared to the rest of the U.S., Utah adults have higher physical activity rates. In 2013, 55.7% of Utah adults reported getting the recommended amount of aerobic physical activity compared to the national rate of 49.5%.²⁸ However, in the past 10 years there has been very little and insignificant change in the rate of Utah adults getting the recommended aerobic physical activity*, from 55.5% in 2003 to 55.7% in 2013.²⁸

Utah adolescents fall below the national rate of recommended physical activity. In 2013, only 19.7% of Utah adolescents in grades 9-12 reported being physically active for at least 60 minutes daily compared to the national rate of 27.1%.²⁹

Disparities in Physical Activity and Nutrition

Access to nutritious and affordable food remains an issue to residents throughout Utah. Food deserts are defined as areas where supermarkets or grocery stores are not easily accessible, most often located in low-income neighborhoods. Such food deserts can be found in both rural and urban settings in Utah (Figure 15).

FIGURE 15 Utah Food Deserts



For additional information on food deserts visit <http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx>

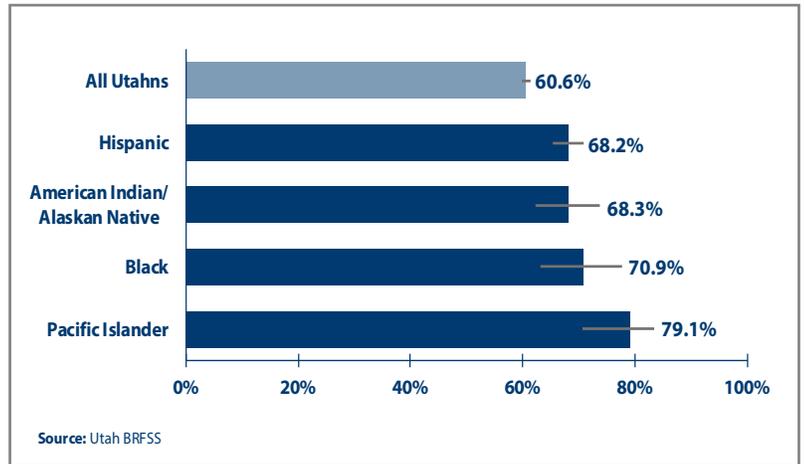
*Recommendations for aerobic activity have changed over time. The 2003 data is based off the definition defined as “light or moderate physical activity for at least 30 minutes five or more times per week or who report vigorous physical activity for at least 20 minutes three or more times per week.” Whereas the 2013 data is based off the current recommendations as defined as “150+ min/week of at least moderate intensity, or 75+ min/week of vigorous intensity, or an equivalent combination of aerobic physical activity.”

Additionally, BRFSS survey methodology changed in 2010, caution should be used in comparing data between old and new methodologies. In 2010, BRFSS began conducting surveys by cellular phone in addition to landline phones and also adopted new sampling and weighting methodologies. More details about these changes can be found at: <http://health.utah.gov/opa/publications/brfss/Raking/Raking%20impact%202011.pdf>.

There is little measurable difference in nutritional data among racial and ethnic groups. American Indians/Alaskan Natives in Utah had significantly lower fruit consumption but not significantly lower vegetable consumption compared to the state rate. Compared to the state rate, fruit consumption was lower in the rural and frontier populations and vegetable consumption is only lower among the Utah frontier populations.¹⁴

Pacific Islanders, Blacks, American Indians/Alaskan Natives, and Hispanics all have significantly higher obesity or overweight rates than the state rate¹⁴ (Figure 16).

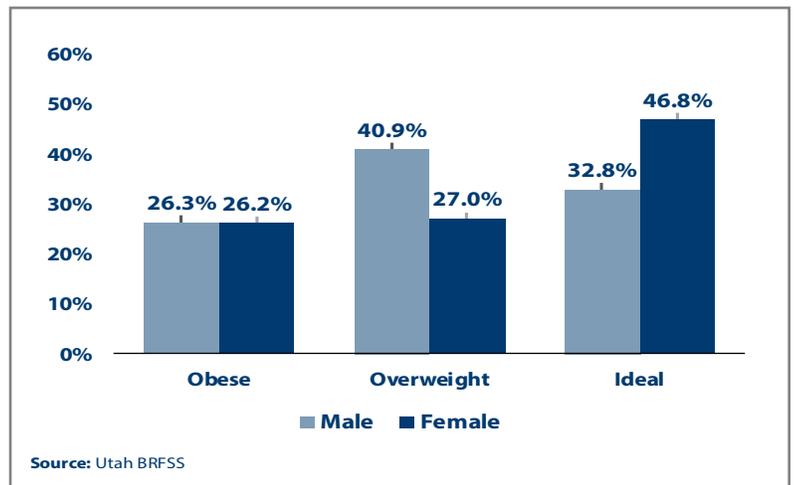
FIGURE 16 Overweight & Obese (BMI 25+) Among Adults by Race/Ethnicity, Utah 2012-2014



*Includes disparate groups only

Utah males tend to have more weight-related disparities than females. Among male Utah high school students, adolescent obesity was twice as high (10.2%) compared to females (4.6%).³⁰ Among Utah adults, women reported significantly higher rates of having a healthy weight, while men reported higher rates of being overweight (Figure 17). However, there was no statistical difference of obesity rates among Utah adults.¹⁴

FIGURE 17 Weight Status Among Adults, by Sex, Utah 2014



“It has been extremely gratifying to see the shift in Washington City toward cycling. We’ve taken one of the least supportive communities and introduced them to resources and tools that will help them.”

-Southern Utah Bicycle Alliance (SUBA)
Go to <http://ucan.cc/> to read the full story

FIGURE 18 Obesity (30+ BMI) Among Females, by Sexual Orientation, Utah 2011-2014

Compared to heterosexual women, women who identified as homosexual, bisexual, or other sexual orientation had significantly higher rates of obesity (Figure 18). The difference among male obesity rates by sexual orientation was not statistically significant.¹⁴

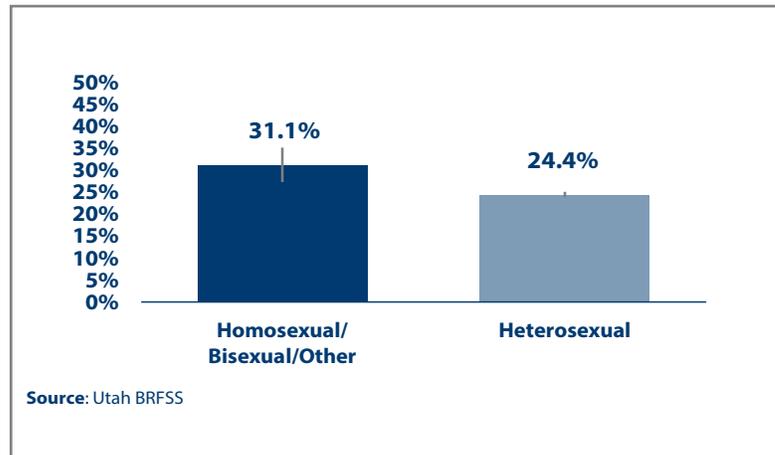
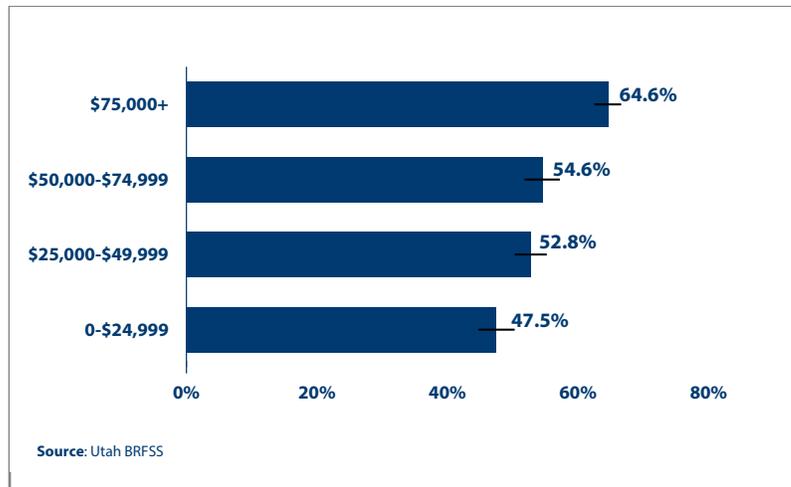


FIGURE 19 Adults Who Meet Aerobic Physical Activity Recommendations by Income, Utah 2013

Both higher education and higher income are associated with higher activity levels among Utah adults¹⁴ (Figure 19).



Goal 1: Increase the number of Utahns who meet the current Dietary Guidelines for Americans.³¹

Strategy A: Increase the access to healthy foods in schools, worksites, and communities through policy, systems, and environmental change.

Collaboration Research Disparities **Policy, Systems, and Environmental Change**

What will success look like? Schools, worksites, and communities throughout the state will have access to healthy food options.

Action Steps

- 1 Advocate for increased access to farmer’s markets and community gardens for underserved populations.
- 2 Develop interventions to increase access to healthy foods in areas with little or no access including food deserts.
- 3 Partner with worksites to implement healthy food policies that increase access to fruit and vegetables for employees.
- 4 Partner with schools and daycares to implement healthy food policies that increase access to fruit and vegetables.
- 5 Increase access to culturally-appropriate healthy foods.
- 6 Encourage the use of space for community gardens and farmer’s markets in underserved areas.
- 7 Partner with community supported agriculture (CSA) programs to increase access to locally grown foods.

National Strategy Alignment: Centers for Disease Control and Prevention. (2014). Healthier Food Retail: An Action Guide for Public Health Practitioners. Atlanta, GA; Centers for Disease Control and Prevention. (2011). Strategies to Prevent Obesity and Other Chronic Disease: The CDC Guide to Strategies to Increase the Consumption of Fruits and Vegetables. Atlanta, GA.

Policy, Systems, and Environmental (PSE) Change Approaches for Nutrition

Setting	Non-PSE Approach	PSE Approach
School	Discuss the importance of healthy eating with students during the school day.	Provide only healthy, appealing, and affordable food options in cafeterias and on school campuses that makes it easy for students to eat healthy before, during, and after school.
Workplace	Challenge employees to bring healthy lunches to work.	Dedicate workplace land for use as an employee garden, incentivize employees to tend the garden, and use the resulting produce in the onsite cafeteria.
Community	Promote a local farmer’s market through flyers, signs, email, and newsletters.	Facilitate farm-to-plate agreements between local food producers and community organizations including

Goal 2: Increase the number of Utahns who meet the current Physical Activity Guidelines for Americans.³²

Strategy A: Increase physical activity in schools, worksites, and communities through policy, systems, and environmental change.

Collaboration Research Disparities **Policy, Systems, and Environmental Change**

What will success look like? Opportunities and resources for physical activity will exist in all Utah communities.

Action Steps

- 1 Advocate for more parks and open spaces in underserved communities.
- 2 Promote and support state and local policies that create environments conducive to regular physical activity.
- 3 Work with communities to develop active transportation plans and policies to encourage physical activity.
- 4 Assist underserved communities to implement policies that encourage the development and utilization of physical activity resources including affordable recreation facilities, green spaces, and parks.
- 5 Promote programs, such as the Safe Routes to School Program, which make it safe for students to walk to and from school.
- 6 Collaborate with worksites and schools to implement policies that increase opportunities for employees and students to be physically active.
- 7 Work with underserved communities to increase social support interventions in community settings.

National Strategy Alignment: U.S. Department of Health and Human Services. (2015). Step It Up! The Surgeon General’s Call to Action to Promote Walking and Walkable Communities. Washington, D.C.; U.S. Department of Health and Human Services. 2008. Physical Activity Guidelines for Americans. Washington, D.C; Community Preventative Services Task Force. (2014). Behavioral and Social Approaches to Increase Physical Activity: Social Support Interventions in Community Settings.

Policy, Systems, and Environmental (PSE) Change Approaches for Physical Activity

Setting	Non-PSE Approach	PSE Approach
School	Teach the benefits of physical activity in a health course.	Develop a walking school bus program that makes it easy for students to walk and exercise before and after school.
Workplace	Host a “get fit” challenge for employees.	Develop an incentive program that encourages walking and exercising during the workday. ³³
Community	Promote recreation center facilities and community classes for physical activity.	Advocate for local government to develop open spaces into public parks and recreation areas that allow for increased physical activity.

Targets for Change

Reduce the proportion of adolescents in grades 9-12 who are considered obese*.	
7.5% Baseline <small>(2011 & 2013 YRBS)</small>	5.5% Utah 2020 Target
Data Source: YRBS	
<i>Aligns with: Healthy People 2020, NWS-10</i>	
<small>*Defined as at or above the 95th percentile for body mass index, by age and sex.</small>	

Reduce the proportion of adults who are obese*.	
26.3% Baseline <small>(2014 BRFSS age-adjusted)</small>	24.5% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, NWS-9</i>	
<small>*Defined as a BMI of 30 or more.</small>	

Increase the proportion of adults who are at a healthy weight*.	
39.5% Baseline <small>(2014 BRFSS age-adjusted)</small>	41.5% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, NWS-8</i>	
<small>*Defined as a BMI less than 25.</small>	

Targets for Change

Increase the consumption of fruits to two or more servings per day.	
34.2% Baseline (adults) (2013 BRFSS age-adjusted)	36% Utah 2020 Target (adults and adolescents)
34.3% Baseline (adolescents) (2013 YRBS)	
Data Source: BRFSS, YRBS	
<i>Aligns with: Healthy People 2020, NWS-14; National Prevention Strategy</i>	

Increase the consumption of vegetables to three or more servings per day.	
17.5% Baseline (adults) (2013 BRFSS age-adjusted)	18.4% Utah 2020 Target (adults)
14.2% Baseline (adolescents) (2013 YRBS)	15% Utah 2020 Target (adolescents)
Data Source: BRFSS, YRBS	
<i>Aligns with: Healthy People 2020, NWS-15.1; National Prevention Strategy</i>	

Increase the proportion of adults who are physically active*.	
58.5% Baseline (2011-2013 BRFSS)	62% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, PA-2.4</i>	
*Defined as 150+ min/week of at least moderate intensity, or 75+ min/week of vigorous intensity, or an equivalent combination of aerobic.	

Increase the proportion of adolescents in grades 9-12 who are physically active*.	
48.7% Baseline (2013 YRBS)	51.1% Utah 2020 Target
Data Source: YRBS	
<i>Aligns with: Healthy People 2020, PA-3.1; National Prevention Strategy</i>	
*Defined as 60+ minutes daily five out of seven days	

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Skin Cancer



Skin Cancer



Introduction to Skin Cancer

Skin cancer is the most commonly diagnosed cancer in the U.S. and Utah. There are two types of skin cancer: non-melanoma (basal cell carcinoma and squamous cell carcinoma) and melanoma.

It is estimated that 90% of non-melanoma skin cancers and 65% of melanoma skin cancers are associated with exposure to ultraviolet (UV) radiation from the sun.³⁴ The risk for melanoma is greatly increased by tanning, from either outside UV exposure or by using indoor sunlamps and tanning beds.

Geography plays a role in determining melanoma risk. Individuals who live in areas with a high elevation, warmer climate, and where sunlight can be reflected by sand, water, snow, and ice experience higher rates of melanoma. Utah is the third highest state in the country, with a mean elevation of 6,100 feet. Additionally, the majority of residents participate in year-round outdoor recreation, further exposing residents to UV radiation.

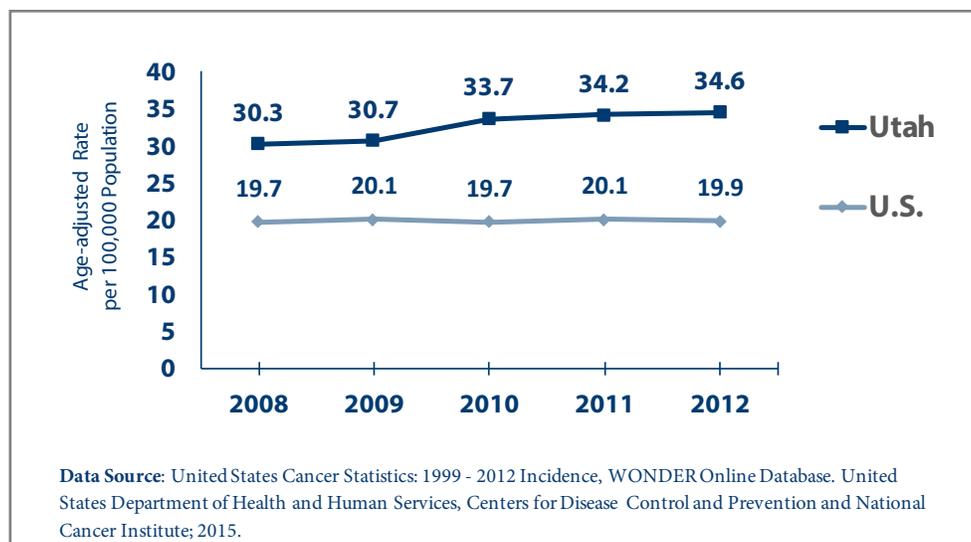
The risk of skin cancer can be decreased through exercising proper sun safety measures: wearing protective clothing (e.g. long-sleeved shirts and long pants that utilize tightly woven fabric); broad-brimmed hats; sunglasses; applying SPF 30+ broad-spectrum sunscreen to exposed skin; seeking shade under an umbrella, tree, or shelter whenever possible; and avoiding sun between 10 a.m. and 4 p.m., when the sun's rays are strongest.³⁵

Burden in Utah

The melanoma cancer incidence in Utah is the highest in the nation and continues to rise. In 2012, the age-adjusted melanoma incidence rate in Utah was 34.6 per 100,000 compared to 19.9 per 100,000 nationally (Figure 20).

The mortality rate of melanoma in Utah is also much higher than the national rate. In 2012, the age-adjusted melanoma mortality rate in Utah was 3.7 per 100,000 and 2.7 per 100,000 nationally.³⁶

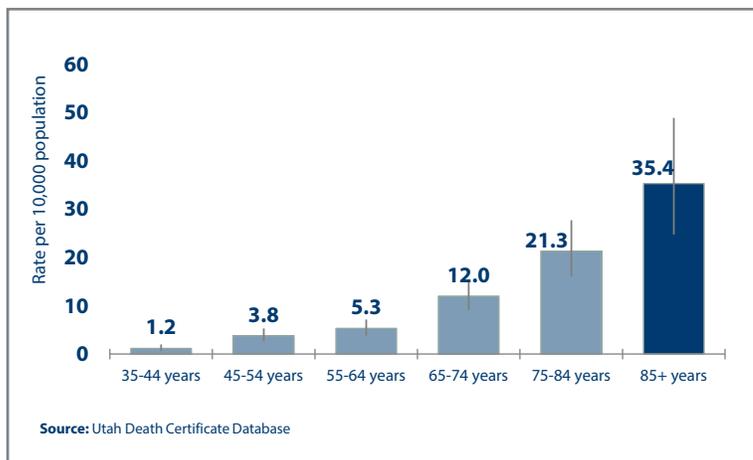
FIGURE 20 Incidence of Melanoma Skin Cancer, Utah and U.S., 2008-2012



Disparities in Skin Cancer

The risk of skin cancer is much higher for non-Hispanic whites than for any other racial group, especially those with red or blond hair, blue or green eyes, or fair skin that freckles or burns easily.

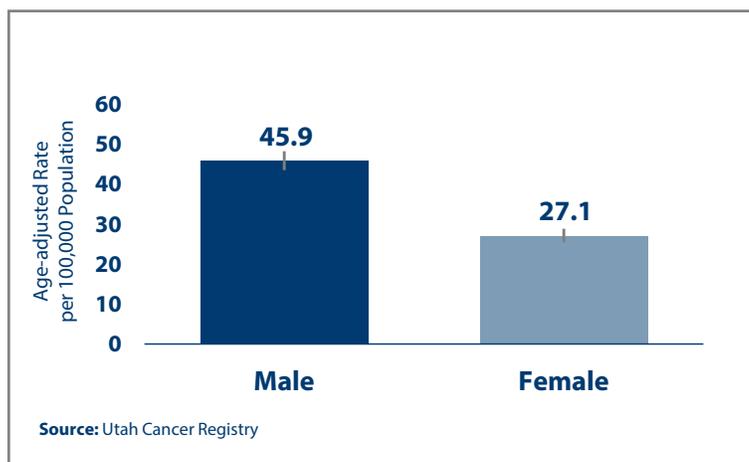
FIGURE 21 Melanoma Skin Cancer Deaths, by Age Group, Utah 2012-2014



The risk of melanoma skin cancer increases with age. Among Utahns aged 65 and over, males were 2.7 times more likely to develop melanoma compared to females (205.2 per 100,000 males vs. 76.1 per 100,000 females)¹¹ (Figure 21).

FIGURE 22 Incidence of Melanoma Skin Cancer, by Sex, Utah 2011-2013

The risk of melanoma skin cancer affects men more than women (Figure 22). Utah males were 1.7 times more likely than Utah females to be diagnosed with melanoma of the skin (45.9 per 100,000 males age-adjusted vs. 27.1 per 100,000 females age-adjusted)¹¹ (Figure 22).



Utah Females are 2 TIMES More Likely Than Males to use Indoor Tanning

Source: BRFSS 2011-2013

Utah females aged 18 to 34 years have been significantly more likely to practice one or more sun safety measures compared to males of a similar age (63.2% compared with 48.9%).¹⁴ However, females have been more likely to report using an indoor tanning device compared to males (9.5% compared to 4.0% in the last 12 months).¹⁴ This same pattern is seen in adolescents.³⁰

Goal 1: Prevent skin cancer.

Strategy A: Use education strategies to increase awareness of skin cancer prevalence and prevention.

Collaboration Research Disparities

What will success look like? Schools, worksites, policy makers, and the general public will be aware of skin cancer prevalence in Utah and ways they can prevent it.

Action Steps

- 1 Develop strategies for increasing awareness of skin cancer prevention for use in a school-based setting.
- 2 Increase skin cancer prevention education in worksites and public entities.
- 3 Provide education on skin cancer prevention and prevalence to policy makers.
- 4 Identify and educate populations at high risk for skin cancer.
- 5 Create and market an educational campaign in conjunction with National Skin Cancer Prevention and Detection Month in order to increase Utahns' awareness of skin cancer prevention and prevalence.

National Strategy Alignment: U.S. Department of Health and Human Services. (2014). Surgeon General's Call to Action to Prevent Skin Cancer. Washington, DC; Community Preventative Services Task Force. (2012). Community-Based Skin Cancer Prevention that Works.



“I really believe that my life is to be lived with an attitude of gratitude; that’s how I continue to move forward. I still really love and enjoy being in the sun. I’m just a lot more careful now.”

*-Julie A. Varoz, Melanoma Cancer Survivor
Go to <http://ucan.cc/> to read the full story*

Strategy B: Promote policy, system, and environmental change to decrease the risk for skin cancer.

Collaboration Research Policy, Systems, and Environmental Change

What will success look like? Schools, worksites, and public entities will implement policy, systems, and environmental change that will decrease the risk of skin cancer.

Action Steps

- 1 Advocate for increased availability of shade in schools, worksites, and public places through natural and built structures.
- 2 Advocate for policy changes in worksites that increase sun protective measures, such as shade and sunscreen, for outdoor employees.
- 3 Advocate for policy efforts and interventions addressing tanning behavior.
- 4 Monitor the population’s engagement in skin cancer preventive behaviors for use in the development of evidence-based interventions.
- 5 Advance statewide policy efforts that increase the legal age of tanning to 18.

National Strategy Alignment: U.S. Department of Health and Human Services. (2014). Surgeon General’s Call to Action to Prevent Skin Cancer. Washington, DC; Community Preventative Services Task Force. (2012). Community-Based Skin Cancer Prevention that Works.

Policy, Systems, and Environmental (PSE) Change Approaches for Skin Cancer

Setting	Non-PSE Approach	PSE Approach
School	Teach students the importance of wearing sunscreen.	Incorporate sun protection as part of school policies, planning, and development of school facilities.
Workplace	Encourage employees to avoid prolonged UV exposure.	Provide uniforms and apparel that protect against UV exposure to outdoor employees.
Community	Organize races or walks to raise awareness	Incorporate shade planning in land use development, support organizational policies that discourage indoor tanning by adolescents and young adults, or advocate for additional policy restrictions. ³⁴

Targets for Change

Reduce melanoma cancer deaths.	
3.42 per 100,000 population* Baseline <small>(2013-2014 Utah Death Certificate Database age-adjusted)</small>	2.8 per 100,000 population Utah 2020 Target
Data Source: Utah Death Certificate Database, Office of Vital Records and Statistics	
<i>Aligns with: Healthy People 2020, C-8</i>	

Reduce the percentage of adults who report sunburn in the last twelve months.	
TBD Baseline <small>(2016 BRFSS)</small>	5% Improvement Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-20.2</i>	

Reduce the proportion of adolescents in grades 9-12 who report using artificial sources of ultraviolet light for tanning.	
9.5% Baseline <small>(2013 YRBS)</small>	7% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-20.3</i>	

Reduce the proportion of adolescents in grades 9 through 12 who report sunburn.	
TBD Baseline <small>(2015 YRBS)</small>	5% Improvement Utah 2020 Target
Data Source: YRBS	
<i>Aligns with: Healthy People 2020, C-20.1</i>	

Reduce the proportion of adults who report using artificial sources of ultraviolet light for tanning*.	
6.7% Baseline <small>(2011-2012 BRFSS age-adjusted)*</small>	5% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-20.4</i>	
<small>*Defined as use within the last 12 months.</small>	

Survivorship and Quality of Life



Survivorship and Quality of Life

Introduction to Survivorship and Quality of Life

The American Cancer Society reports that there are more than 14 million cancer survivors living in the U.S. By 2024, this number is expected to grow to almost 19 million.³⁷

Cancer survivorship begins at diagnosis and extends through the rest of the person's life. Cancer survivorship can also include caregivers and support systems around the individual diagnosed. Cancer survivors include those who are undergoing treatments, have completed treatments, and those who are receiving palliative or hospice care temporarily or for the remainder of their lives. Cancer survivors face difficult realities as they cope with short and long-term symptoms of the disease, including the side effects of treatment.

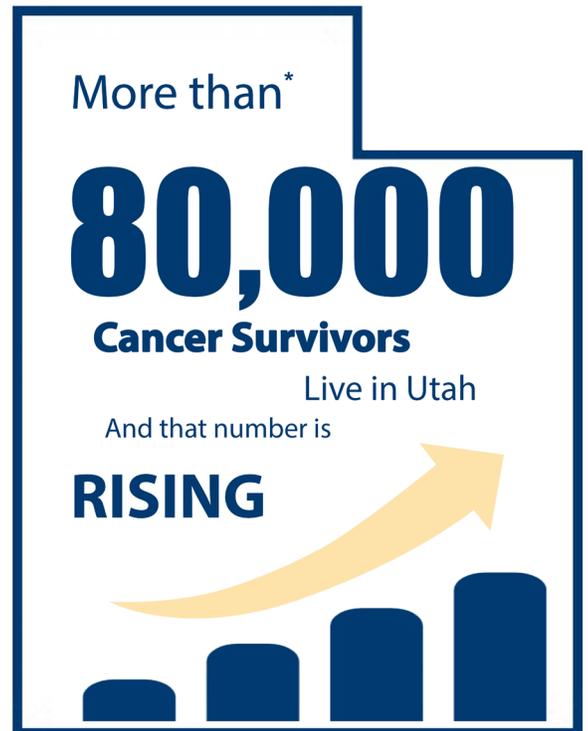
Cancer is often a stigmatizing disease. Social, economic, physical, and emotional barriers exist for cancer survivors. Physical effects include, pain, fatigue, memory and concentration loss, peripheral neuropathy, fertility issues, or body disfigurement. Many cancer survivors face difficulties achieving and maintaining employment, paying for medical bills, and accessing healthcare services and support. Cancer may also devastate family relationships which may result in despair, hopelessness, and isolation.

Many institutions and community groups offer excellent support programs and often find challenges in making these programs accessible to cancer survivors, both in and out of treatment and their loved ones. Often, clinicians and survivors are not aware of these programs or that the need even exists. There is a need within Utah to determine the needs of cancer survivors, what resources exist, and how to best connect those affected by cancer to the programs and services that can meet those needs.

Burden in Utah

It is estimated that 81,260 cancer survivors reside within the state of Utah.³⁷ As screenings become more efficient and treatments become more effective, it is expected that more people will enter remission for their cancer or live longer with their diagnosis.

Much of the attention on cancer remains on prevention and early detection. The burden that cancer places on the quality of life for survivors and their caregivers is often overlooked. It is recommended that formal needs and resource assessments be conducted to improve the quality of life of cancer patients and their loved ones through access to services and the adoption of healthy behaviors. Additionally, by improving access to quality treatment, appropriate supportive care, and follow-up, the cancer burden of survivors, and their loved ones, may be reduced throughout cancer survivorship.



*Estimated 81,260 in 2014
Source: American Cancer Society. *Cancer Treatment and Survivorship Facts & Figures 2014-2015*

Disparities in Cancer Survivorship

Cancer survivors in Utah face poorer health outcomes and quality of life compared to the general population. Cancer survivors are nearly twice as likely to smoke compared to the rest of the population (Figure 23) and nearly twice as likely to report their activities being limited because of physical, mental, or emotional problems¹⁴ (Figure 24).

FIGURE 23

Current Cigarette Smoking, by Cancer Diagnosis, Utah 2010-2014

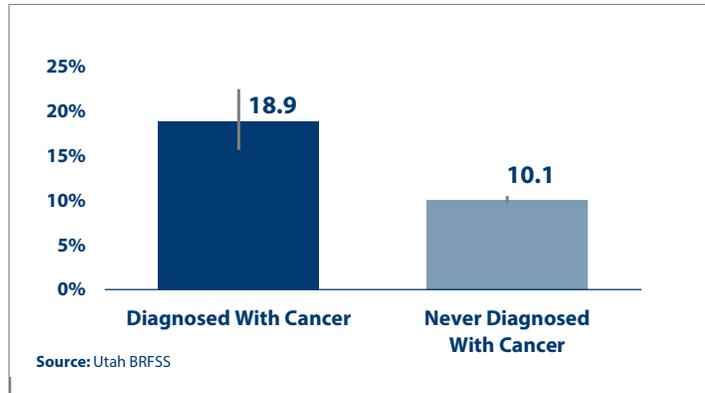
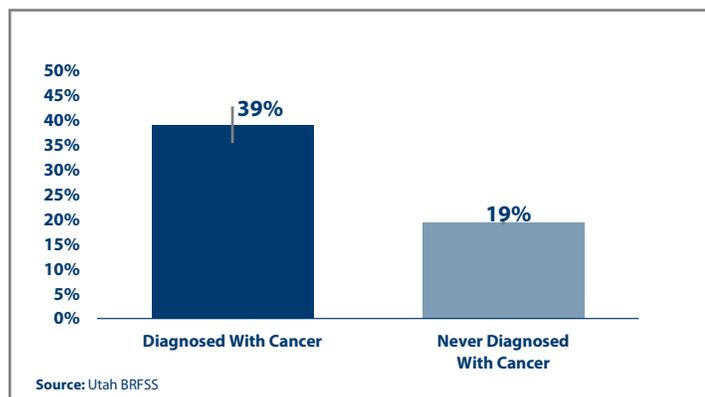


FIGURE 24

Activities Limited Due to Physical, Mental, or Emotional Problems by Cancer Diagnosis*, Utah 2010-2014



*Age-adjusted

A current study has shown that many U.S. cancer survivors are eating less healthy diets than the general population, consuming too many energy-dense foods, and not eating the recommended amount of vegetables and whole grains. Cancer survivors also showed low dietary intakes of vitamin D, vitamin E, potassium, and calcium. The findings of the study revealed a need for dietary interventions in this vulnerable population.³⁸

Affording cancer care and continual treatment is a significant financial burden cancer patients and survivors face. Cancer patients and survivors with lower incomes, who are uninsured/under insured and have limited access to care often struggle to adhere to essential medical care. On study found that older black and Hispanic cancer survivors were more than twice as likely to report cost-related medication non-adherence.³⁹

Within Utah, rural cancer survivors face geographic barriers that prevent access to medical services and routine healthcare. Researchers at Huntsman Cancer Institute and Primary Children’s Medical Hospital identified that rural caregivers of children with cancer were more likely to miss work, quit or change jobs, relocate residences, and have greater financial burdens. The children themselves missed more school and were more likely to repeat a grade if they lived more than an hour away from their treatment center.⁴¹

National data shows that the impact of cancer on treatment and quality of life on the 1 million lesbian, gay, bisexual, transgender, and queer (LGBTQ) cancer survivors was significantly different from their heterosexual counterparts in the areas of sexuality, social relationships, and dealings with the medical community.⁴²

Ways to address cancer survivor needs:

- Develop, test, maintain, and promote a patient navigation system for cancer survivors.
- Educate decision-makers about economic and insurance barriers related to healthcare for cancer survivors.
- Establish and/or disseminate guidelines that provides support for quality and timely service provision to cancer survivors.
- Assess and enhance provision of palliative services to cancer survivors.
- Establish integrated multidisciplinary teams of healthcare providers.⁴⁰

Cancer Survivorship Care Plan

The transition from cancer treatment to primary care can be a confusing and difficult process. Many cancer survivors complete treatment without a clear understanding of how to manage ongoing symptoms and fail to receive proper follow-up care moving forward. Survivorship care plans can help bridge this process by providing an individualized post-treatment plan for the survivor, their oncology team, and their primary care providers.

A survivorship care plan generally offers information about the original diagnosis, the treatment that was given, information about the treatment team, a summary of possible ongoing health symptoms and concerns, instructions for follow-up tests, a psycho-social assessment, and lists of information and resources available.

Research is being conducted within the state of Utah and nationwide to learn more about survivorship care plans, barriers to their use, and ways to make them more useful for the survivor and medical teams going forward.

“Cancer has given me a new perspective on life. I have learned what is important to me, which is my family and children. I appreciate my health and body a lot more than before, especially that I am able to run, bike, and spend time outdoors.”

–Nancy Limburg, breast cancer survivor
Go to <http://ucan.cc/> to read the full story



Goal 1: Ensure that the needs of cancer survivors and their caregivers are met throughout the continuum of care.

Strategy A: Identify the needs of cancer survivors and their caregivers.

Research Disparities

What will success look like? Utah cancer survivors and caregiver needs will be known and understood.

Action Steps

- 1 Conduct a comprehensive needs assessment to determine the unique needs of cancer survivors and their caregivers in Utah.
- 2 Conduct a comprehensive review of survivorship programs nationwide to determine best practices for developing survivorship programs in Utah.
- 3 Create and adopt methods or programs for connecting cancer survivors and caregivers to resources tailored to their needs, including health disparities.
- 4 Administer the BRFSS Cancer Survivorship Module every two years to identify survivor and caregiver needs.

Strategy B: Improve quality of life among cancer survivors and their caregivers.

Collaboration Research Disparities Policy, Systems, and Environmental Change Quality Improvement

What will success look like? Utah cancer survivors will experience an increase in their quality of life.

Action Steps

- 1 Provide education to cancer survivors about support programs and policies designed to assist them in adopting healthy lifestyle habits, such as healthy eating, regular physical activity, stress management, and being tobacco free, in order to improve overall health and quality of life.
- 2 Provide education to healthcare providers related to physical, mental, and emotional needs of cancer survivors.
- 3 Offer training to healthcare providers to better understand factors that lead to disparities such as education, poverty, race/ethnicity, gender, sexual orientation, and rural/frontier residence.
- 4 Provide education to cancer survivors and caregivers about financial assistance available for treatment and quality of life services.

National Strategy Alignment: Centers for Disease Control and Prevention. (2004). A National Action Plan for Cancer Survivorship: Advancing Public Health Strategies. Atlanta, GA

Strategy C: Improve access to treatment options, symptom management, and follow-up care for cancer survivors.

Collaboration Disparities Research Policy, Systems, and Environmental Change Quality Improvement

What will success look like? High quality treatment options, symptom management, and follow-up care will be accessible to all Utah cancer survivors.

Action Steps

- 1 Encourage healthcare providers to inform patients of opportunities related to enrollment in clinical trials.
- 2 Support partners in developing specific patient navigation programs addressing the needs of disparate populations including adolescent and young adult survivors, rural and frontier populations, racial and ethnic minorities, LGBTQ individuals, etc.
- 3 Advocate for improved policies and programs designed to increase the number of patients that have access to pain management and palliative care.
- 4 Partner with healthcare systems to meet the Commission on Cancer Standard 3.3⁴³ in order to ensure that all eligible patients receive survivorship care plans by 2020.
- 5 Work with healthcare systems to identify gaps in the healthcare workforce and develop strategies to address the growing demand for survivorship care.
- 6 Link cancer survivors to patient navigation or community health worker programs.
- 7 Partner with worksites to establish policies allowing for paid time off for cancer treatment, post-treatment, and rehabilitative services.

National Strategy Alignment: Centers for Disease Control and Prevention. (2004). A National Action Plan for Cancer Survivorship: Advancing Public Health Strategies. Atlanta, GA

Policy, Systems, and Environmental (PSE) Change Approaches for Survivorship and Quality of Life

Setting	Non-PSE Approach	PSE Approach
Healthcare Organizations	Provide patients contact information for survivorship support groups.	Routinely provide a comprehensive post-treatment plan and refer to specific support groups, patient navigators, and resources in their local community.
Workplace	Host an annual event for cancer survivors or provide information about local survivor retreats.	Develop workplace policies specifically to accommodate the needs of cancer survivors, including additional paid leave for follow-up care.
Community	Promote an event highlighting community	Work with local health departments, healthcare organizations, and patient navigation providers to establish a unified referral process for connecting survivors with the appropriate survivorship groups and patient navigators.

Targets for Change

Decrease the proportion of cancer survivors who are current smokers.	
19.4% Baseline <small>(2014 BRFSS age-adjusted)</small>	17% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, TU-1,2; National Action Plan for Cancer Survivorship</i>	

Increase the proportion of cancer survivors reporting their pain is under control.	
88.6% Baseline <small>(2010 BRFSS)</small>	94% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-14; National Action Plan for Cancer Survivorship</i>	

Decrease the proportion of cancer survivors who report no physical activity or exercise in the past month.	
25.8% Baseline <small>(2013-2014 BRFSS age-adjusted)</small>	19% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-14; National Action Plan for Cancer Survivorship</i>	

Increase the proportion of cancer survivors reporting “Excellent”, “Very Good”, or “Good” physical health.	
79.1% Baseline <small>(2010 BRFSS)</small>	83% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-14; National Action Plan for Cancer Survivorship</i>	

Targets for Change

Decrease the proportion of cancer survivors reporting life dissatisfaction.	
5.2% Baseline (2010 BRFSS)	4% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-14; National Action Plan for Cancer Survivorship</i>	

Increase the proportion of cancer patients receiving survivorship care plans.	
44.5% Baseline (2010 BRFSS)	50% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: The Livestrong Essential Elements of Survivorship Care</i>	

Increase the proportion of cancer survivors who report having their insurance pay for all or part of their cancer treatment.	
91.7% Baseline (2010 BRFSS)	95% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: National Action Plan for Cancer Survivorship</i>	

Decrease the proportion of cancer survivors reporting limitations in their usual activities due to physical, mental, or emotional problems.	
38.7% Baseline (2014 BRFSS age-adjusted)	35% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: Healthy People 2020, C-14; National Action Plan for Cancer Survivorship</i>	

Increase statewide cancer patient enrollment in clinical trials.	
5.6% Baseline (2010 BRFSS)	8% Utah 2020 Target
Data Source: BRFSS	
<i>Aligns with: National Action Plan for Cancer Survivorship</i>	

Collaboration Priorities

These priority areas represent topics in which UCAN involvement is important. These priorities will be led by outside organizations which will partner with UCAN to expand reach and improve outcomes.

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Genomics



Introduction to Genomics

Major advances in our understanding of cancers have helped us develop ways of detecting genetic mutations that impact an individual's risk of developing certain cancers. This provides an opportunity to vigilantly screen for related cancers and diagnose them at an earlier stage when they are more treatable or, for some cancers, even help prevent cancers from occurring. These efforts can lead to significant reductions in the physical, psychological, and economic costs of cancer.

While there are several tests available to identify multiple genetic mutations associated with an increased risk of cancer, only a few types of cancer lend themselves to preventative measures such as increased screenings, chemo-preventative treatments, and possibly prophylactic surgeries. Current public health efforts focus specifically on Lynch Syndrome and Hereditary Breast and Ovarian Cancer syndrome (HBOC) due to mutations in the BRCA1 or BRCA2 genes. For these syndromes, there are very clear recommendations and risk management guidelines for those who test positive. It is estimated that Lynch Syndrome and HBOC each affect one in 400-600 individuals.



While genetic testing for Lynch Syndrome and HBOC can be very beneficial, testing is currently only recommended for individuals with specific personal or family histories, mainly due to the cost of testing and the nuances of interpreting test results.

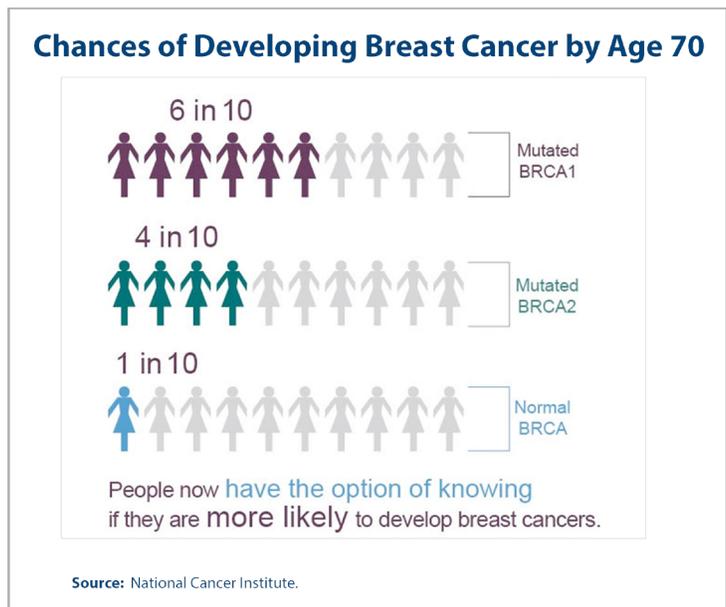
Those interested in learning if genetic testing for these syndromes is appropriate for their personal healthcare should ask their doctor. Simple screenings are available at cancerutah.org/genomicseducation. Those who are recommended for genetic testing should speak with a genetic counselor. This is an important step in the genetic testing process to understand what the test can tell them, what the test results may mean, and what options may be available after learning the results.

While genetic testing for Lynch Syndrome and HBOC can be very beneficial, testing is currently only recommended for individuals with specific personal or family histories.

BRCA 1/2 Mutations

About 12% of U.S. women will be diagnosed with breast cancer sometime during their lives.⁴⁴ However, among women with BRCA1/2 mutations, that risk is drastically higher. Similarly, women who test positive for BRCA1/2 mutations have greatly increased risk for ovarian cancer.

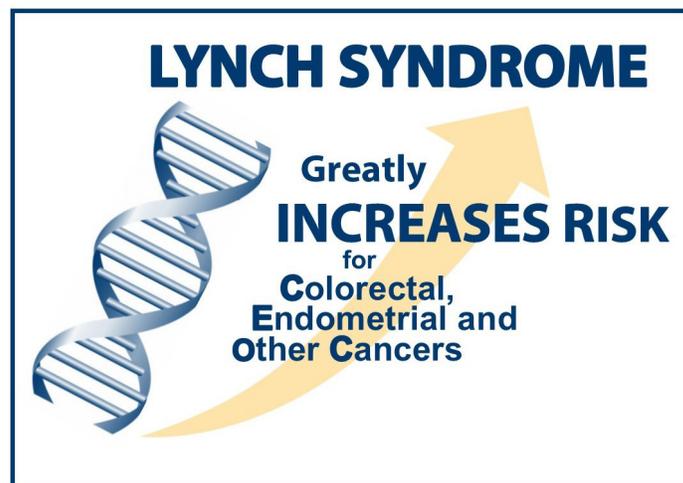
According to the most recent estimates, 55-65% of women who inherit a harmful BRCA1 mutation and around 45% of women who inherit a harmful BRCA2 mutation will develop breast cancer by age 70.^{45,46}



Lynch Syndrome

Lynch syndrome substantially increases the risk of colorectal and endometrial cancers. Lynch syndrome accounts for approximately 1-3% of all colorectal cancers. Lynch syndrome also increases the risk of other cancers including ureter, renal pelvis, stomach, pancreas, ovary, small intestine, and brain. It has also been associated with other cancer including breast, prostate, and adrenal cortex.⁴⁷

Among those with Lynch syndrome, the lifetime risk of colorectal and uterine cancers vary widely depending on the specific mutation(s) and can be as high as 71%.⁴⁵



Current Genomics Partners

Mapping out Utah's cancer genomic population data is underway. Three genomics questions were added to the 2015 Utah Behavioral Risk Factor Surveillance System (BRFSS) and three more questions will be added to the 2016 BRFSS.

In 2014, the Utah Department of Health received one of four five-year cooperative agreements from the Centers for Disease Control and Prevention (CDC) to understand the issue in Utah and increase the use of appropriate genetic counseling, testing, and risk management services associated with HBOC mutations and/or Lynch Syndrome. The UDOH is working with a number of community partners including healthcare systems, universities, and nonprofit organizations to create a cancer genomics surveillance system, increase utilization and improve insurance coverage of these genetics services, and increase education about HBOC and Lynch Syndrome. Community partners include Huntsman Cancer Institute (HCI), Intermountain Healthcare, the Utah Cancer Registry, Utah Population Database, and Project ECHO.

Both HCI and Intermountain Healthcare have instituted tumor screening protocols to assess for Lynch syndrome in all colon and endometrial cancers. Patients found to be at risk for Lynch syndrome due to this screening are contacted and referred for genetic counseling and testing.

Researchers at HCI are pursuing multiple studies to further define the cancer risks associated with genetic mutations resulting in mild/moderate cancer risks and to assess patient understanding of, desire for, and medical management impact of this type of genetic information. Collaboration with HCI and community clinicians, the Genetic Counseling Shared Resource at HCI, as well as the Utah Cancer Registry and Utah Population Database, will assist in identifying appropriate research participants.

Opportunities for UCAN Collaboration

- Undertake efforts to understand how to more effectively communicate cancer risk.
- Encourage individuals to know their family history of cancer, share it with their healthcare provider, and understand their personal cancer risk.
- Promote the use of genetic counseling, testing, or risk management to those who need it.
- Address barriers to accessing genetic counseling, testing, and risk management services.
- Educate healthcare providers (including primary care providers and cancer specialists) on family health histories indicative of cancer syndromes which may be managed through genetic counseling, testing, and risk management.
- Establish relationships between healthcare providers and genetic counselors.

Partner Strategies

Strategy A: Educate patients and healthcare providers on heritable cancers caused by HBOC and/or Lynch Syndrome and the appropriate use of associated genetic counseling, testing, and risk management services.

Activities

- 1 Offer professional education workshops and presentations to healthcare clinicians.
- 2 Develop and promote an educational web page on genetic counseling, testing, and risk management services associated with HBOC and Lynch Syndrome for patients and providers.
- 3 Implement an intervention to increase family communication regarding heritable breast, ovarian, colorectal, or uterine cancers associated with HBOC and Lynch Syndrome and encourage cascade screening for these conditions.

Strategy B: Develop a statewide surveillance system to monitor the burden of heritable cancers and appropriate use of genetic services.

Activities

- 1 Assess the incidence and mortality of breast, ovarian, colorectal, and uterine cancers indicative of HBOC and Lynch Syndrome.
- 2 Assess the proportion of the Utah population potentially at risk of developing breast, ovarian, colorectal, or uterine cancer due to HBOC and Lynch Syndrome based on guidelines from the National Comprehensive Cancer Network.
- 3 Assess Utahns' attitudes and behaviors associated with HBOC and Lynch Syndrome through the Behavioral Risk Factor Surveillance System.

Strategy C: Encourage policy and systems change which increase access to genetic services.

Activities

- 1 Offer opportunities for healthcare providers to consult with genetic counselors on specific patient cases regarding the need for genetic services, referrals, or risk management for patients at increased risk of developing a heritable breast, ovarian, colorectal, or uterine cancer.
- 2 Assess the availability and usability of family history and genetic testing information in cancer patients' medical records to determine the feasibility of regularly including this information in surveillance data sources.
- 3 Develop programs to cover genetic counseling services and risk management services for low-income populations at risk of developing breast, ovarian, colorectal, or uterine cancers due to HBOC and Lynch Syndrome.
- 4 Improve insurance coverage of genetic counseling, testing, and risk management services for individuals at risk of developing breast, ovarian, colorectal, or uterine cancers due to HBOC and Lynch Syndrome.

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Human Papillomavirus (HPV)



Human Papillomavirus (HPV)

Introduction to Human Papillomavirus

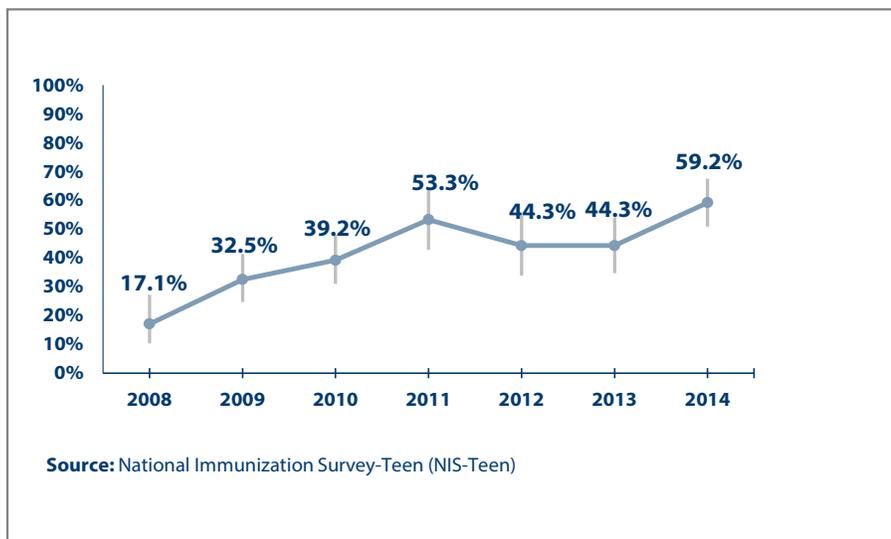
Human papillomavirus (HPV) is a common virus affecting nearly 80 million people (including teens) in the U.S. HPV can cause several types of cancer including cervical, anal, oropharyngeal, penile, vaginal, and vulvar cancers. The HPV vaccine helps protect against the most common strains of the virus, including those that cause cancer. The Advisory Committee on Immunization Practices (ACIP) recommends the vaccine for preteen boys and girls at age 11 or 12. While the efficacy of the vaccine has been proven, the uptake of the vaccine is low among adolescents and young adults in the U.S. and in Utah.⁴⁸ Although there have been great strides to improve HPV vaccination rates in Utah, there is still work to be done.

UCAN supports partners who are working to improve vaccination rates in the state.

HPV Vaccination Rate in Utah

The percentage of adolescents who received the HPV vaccination increased significantly in Utah over the past few years, particularly among adolescent females (Figure 25). In past years, Utah was among the lowest states for HPV vaccination; however, that trend has since changed. In 2014, there was no significant difference in the percent of females aged 13-17 receiving the first and second dose of the HPV vaccine in Utah compared to the U.S. However, Utah did have significantly lower rates of female adolescents completing all three doses of the vaccine.⁴⁹

FIGURE 25 Estimated HPV Vaccination Coverage (First Dose) Among Female Adolescents Aged 13-17, Utah 2008-2014

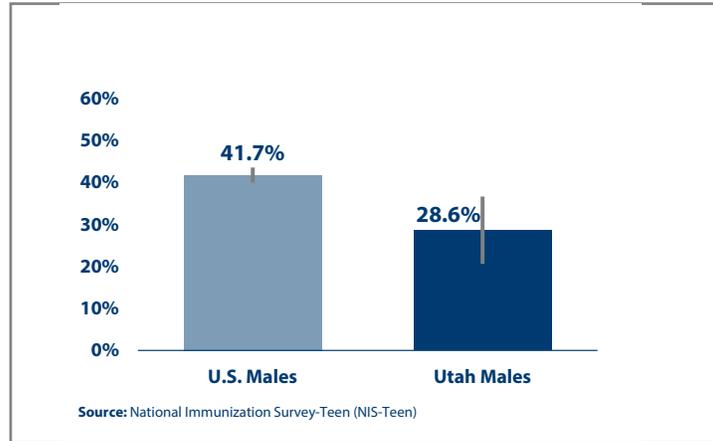


Disparities in HPV

Currently, Utah adolescent males fall well below national averages with 28.6% of Utah male adolescents being vaccinated compared to the nation level of 41.7%⁴⁹ (Figure 26).

FIGURE 26

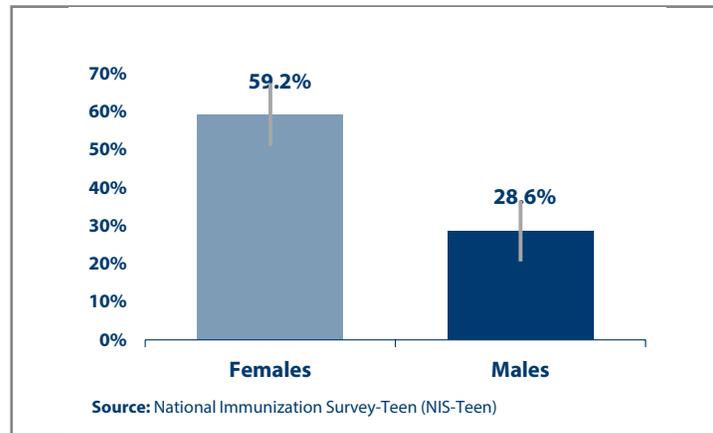
Estimated HPV Vaccination Coverage (First Dose) Among Male Adolescents Aged 13-17, Utah and U.S. 2014



Currently, Utah female adolescents are about twice as likely to receive the HPV vaccine compared to male adolescents in Utah⁴⁹ (Figure 27).

FIGURE 27

Estimated HPV Vaccination Coverage (First Dose) Among Adolescents aged 13-17, by Sex, Utah 2014



The HPV vaccine protects against the most common strains of the virus, including those that cause cancer.

Current HPV Partners

The Intermountain West HPV Vaccination Coalition brings together immunization program representatives with cancer control, pediatric, and primary care specialists as well as parents and community members who share the common goal of improving HPV vaccination rates in the Intermountain West (Colorado, Idaho, Nevada, Wyoming, and Utah).

In 2014, the Utah Department of Health partnered with the American Academy of Pediatrics to present three regional conferences on HPV and the HPV vaccine. The department has disseminated education materials to providers and stakeholders; developed a comprehensive a media campaign to increase awareness and provide education; and distributed surveys to understand parental and provider knowledge, attitudes, and practices around the HPV vaccine.

The Utah Immunization Program hosts the Vaccines for Children Program (VFC) and supplies the HPV vaccine to participating providers including community health centers, local health departments, private physician offices, pharmacies, and school districts. The VFC Program provides free HPV vaccines to children who are underinsured, uninsured, or covered under Medicaid or CHIP. The program also provides assessments to participating VFC providers that show the overall HPV rate and individual dose completion.

Opportunities for UCAN Collaboration

- Advocate for insurance coverage of the HPV vaccine according to the Advisory Committee on Immunization Practices (ACIP) recommendations.
- Support the use of reminder systems in provider offices to increase HPV immunization rates.
- Educate partners on financial resources available for uninsured and underinsured populations for the HPV vaccine, including the VFC program.
- Support public awareness campaigns regarding the HPV vaccine.

Partner Strategies

Strategy A: Improve immunization rates among adolescents and young adults in Utah.

Activities	
1	Educate parents, community members, and healthcare providers about current recommendations for the HPV vaccine.
2	Create public awareness campaigns targeted at parents of adolescents, young adults, and populations at high-risk for HPV infection and cervical cancer.
3	Partner with local organizations to increase awareness of the benefits, safety, and efficacy of the HPV vaccine.

Strategy B: Increase access to the HPV vaccine for adolescents and young adults.

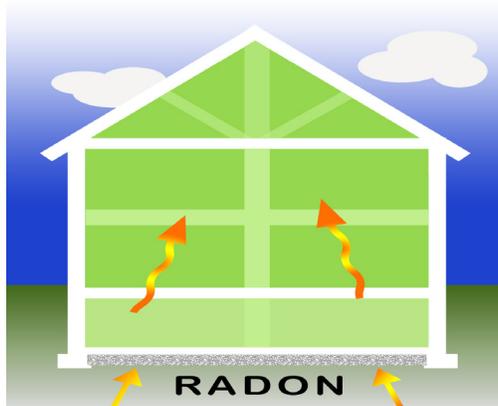
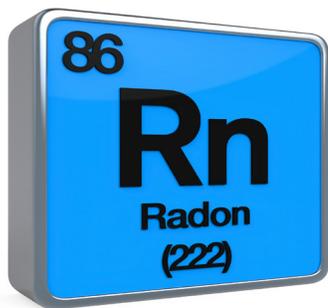
Activities	
1	Educate uninsured and underinsured populations on financial assistance programs available for the HPV vaccine (e.g. VFC).
2	Support Utah's VFC Program to increase the number of healthcare providers who participate and administer the HPV vaccine.
3	Advocate for insurance coverage of the HPV vaccine according to current recommendations.
4	Increase awareness and referral to Utah's VFC Program among vulnerable populations.

Strategy C: Implement healthcare system strategies to increase vaccination rates and vaccination series completion rates.

Activities	
1	Increase the number of providers who report the administration of the HPV vaccine in the Utah Statewide Immunization Information System (USIIS) to ensure the accuracy of patients who are eligible to receive the vaccine.
2	Support the implementation of reminder systems in provider offices to increase the number of patients who complete the HPV vaccination series.
3	Support school-based clinics that offer the HPV vaccine.

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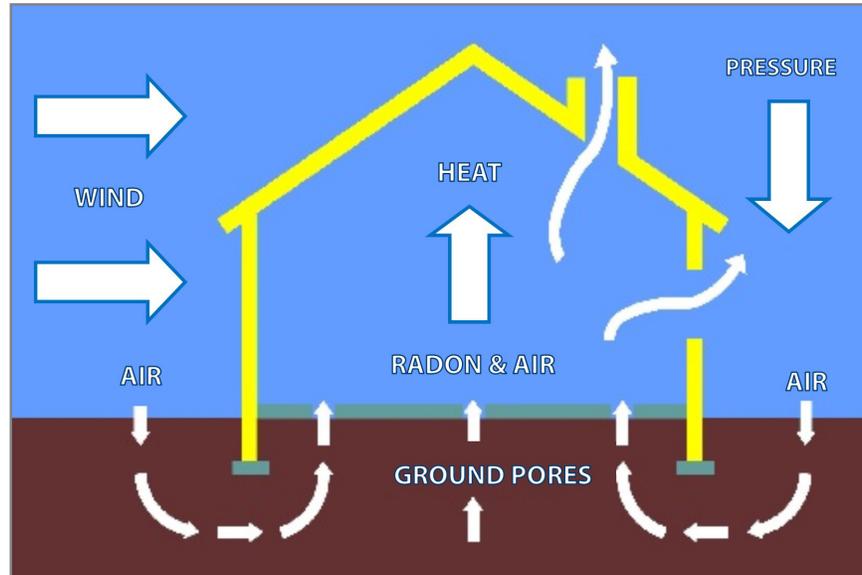
Radon



Radon

Introduction to Radon

Exposure to radon is the number one cause of lung cancer among nonsmokers and the second leading cause of lung cancer overall. Radon is an odorless, invisible gas that occurs naturally in the ground where uranium and radium exist, which can move up through the soil and into a home or building. Concentration of radon is measured in pico Curies per Liters (pCi/L). In Utah, one in three homes tested has elevated radon levels (above 4 pCi/L).⁵⁰



Radon can only be detected through testing. If a test indicates high radon levels, it may be resolved through installation of radon mitigation equipment in the house or building.

Risk estimates extrapolated from epidemiological studies of underground miners indicated that 10%-15% of lung cancer deaths per year in the U.S. may be attributed to residential radon.⁵¹ Studies have also indicated that exposure to both radon and cigarette smoke increases an individual's risk of lung cancer more than either one of these factors alone due to synergistic effects between the two factors. The risk of lung cancer from radon exposure is estimated to be 25 times greater for persons who smoke cigarettes as compared with those who have never smoked.⁵²

UCAN supports partners who are working to decrease lung cancers related to radon through education, community action, legislative policy, and collaboration.

Radon Testing

In the U.S., the average radon concentration in indoor air is about 1.3 pCi/L, but in Utah the average is near 5 pCi/L, a measurement based on over 42,000 short-term radon test results received by the Utah Department of Environmental Quality from 1990-2015.⁵⁰ Nationally, one out of every 15 homes is estimated to have elevated radon levels (above 4 pCi/L).⁵³ Radon risk reduction is particularly relevant in Utah because all counties in the state are classified as an EPA Zone 1 or 2, which denotes areas of high radon potential⁵⁴ (Figure 28).

FIGURE 28 EPA Radon Zones by County

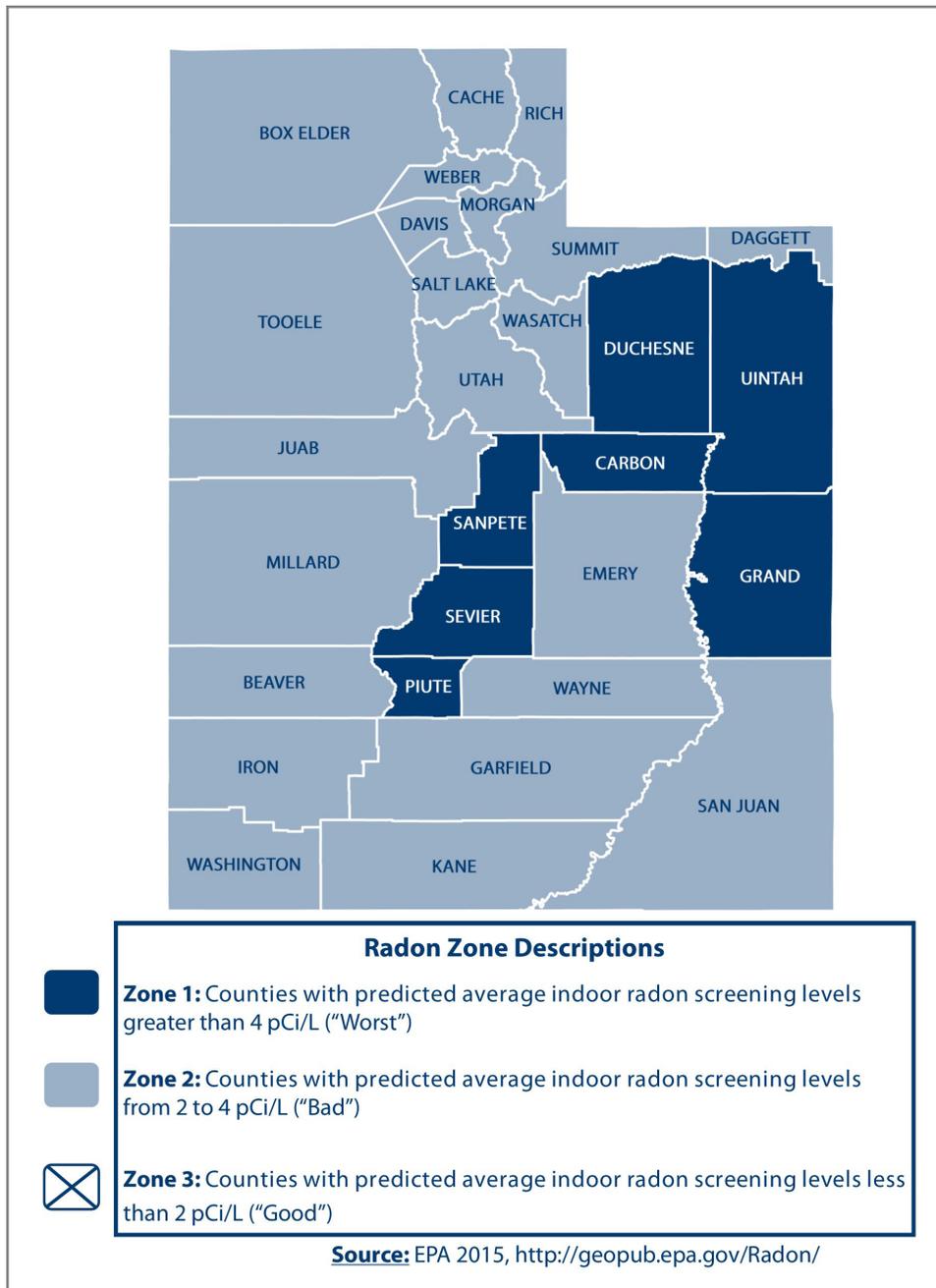
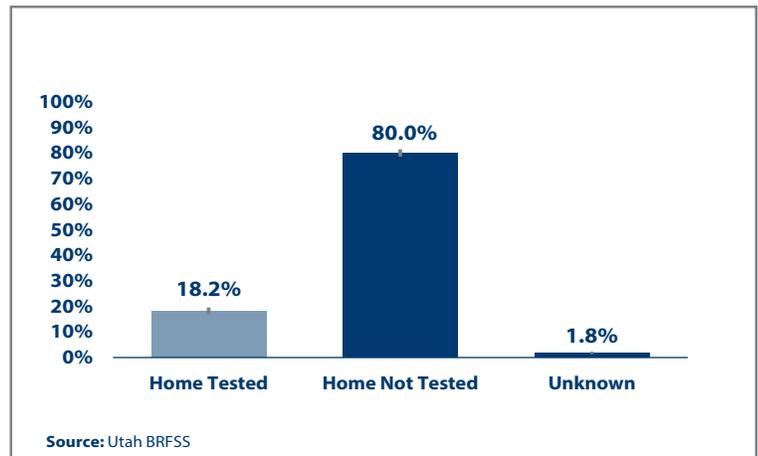


FIGURE 29 Homes Being Tested for Radon (Self-Reported), Utah 2013

Less than 20% of Utahns have tested their homes for radon (Figure 29). Public awareness of radon in Utah is limited with 51.6% of BRFSS respondents in 2013 able to correctly name lung cancer as the health condition associated with radon. Generally, those with higher education and income were more knowledgeable about radon and were more likely to have had their house tested.¹⁴



Current Radon Partners

The Utah Department of Environmental Quality (DEQ), the Utah Department of Health Cancer Control Program, and the Utah Environmental Public Health Tracking Network within the Environmental Epidemiology Program work with partners to implement strategies to reduce Utah residents' exposure to radon gas. Partners such as the Utah Radon Coalition, the Utah Radon Policy Coalition, Huntsman Cancer Institute, local health departments, community hospitals, home builders, and radon mitigators are working together to educate the public and implement local and state policies to protect Utahns from the dangers of exposure to radon gas.

The mission of the Utah Radon Coalition is to eradicate radon-induced lung cancer by eliminating exposure to radon gas through education and awareness activities, community action, and collaborative planning and coordination. Members include private citizens and private and public organizations. The Utah Radon Coalition works in tandem with The Utah Radon Policy Coalition whose mission is to eradicate radon-induced lung cancer through the passage of federal, state, county, and municipal laws, ordinances, and regulations.

Opportunities for UCAN Collaboration

- Encourage members to advocate for radon testing and mitigation policies within their workplace, public buildings, and schools.
- Support the Utah Radon Coalition in achieving statewide PSE solutions to reduce Utahns' exposure to radon gas.
- Leverage coalition memberships to support radon policy efforts in state and local organizations.
- Encourage those asking about radon testing and test kits to contact their local health department or go to radon.utah.gov to purchase a subsidized test kit and/or find a certified mitigator.
- Encourage school staff and administrators to adopt policies to require testing, mitigation, and radon resistant new construction in local schools.

Partner Strategies

Strategy A: Work with partners to establish a statewide surveillance program to track and monitor radon.

Activities	
1	Establish data priorities regarding the collection and reporting of number of tests conducted in the state.
2	Partner with the Utah Cancer Registry to gather timely, accurate, and complete statistics about diagnosis, treatment, and conclusion of radon-induced disease.
3	Compile surveillance plans/programs from other states to model potential programs after.
4	Support policies that require radon measurers and mitigators to submit testing and mitigation data to a statewide program.
5	Improve the quality of professional radon gas measuring and remediation by supporting a policy that requires the training, testing, and licensing of radon measurers and mitigators.
6	Continue to collect data from subsidized home self-test kits.

Strategy B: Provide radon awareness activities for the general public that demonstrate the importance, feasibility, and value of radon testing and mitigation.

Activities	
1	The Utah Department of Health will add radon awareness questions to the BRFSS to help develop a radon awareness baseline and assess the results of radon awareness activities.
2	Secure funding to create and launch a statewide radon awareness campaign to include television, radio, and other electronic and print media ads.
3	Support National Radon Action Month (NRAM).
4	Support the national radon poster contest.
5	Work with state, county, and local government agencies to provide radon awareness materials to residents.
6	Increase awareness concerning the cost efficiency of radon-resistant new construction.

Strategy C: Increase radon testing and subsequent mitigation of high radon levels.

Activities

- 1 Assist and encourage homeowners and home buyers to acquire and use self-test kits or hire certified radon-measurement specialists to test all buildings before they are sold and at the time of sale.
- 2 Assist and encourage homeowners and homebuyers to hire certified radon mitigators to remediate elevated radon levels in the home.
- 3 Develop funding to provide free mitigation services to low-income residents.
- 4 Promote radon testing and mitigation in schools and public buildings.
- 5 The Utah Department of Environmental Quality, community hospitals, and Utah health plans will help provide free radon test kits to new mothers throughout Utah.

Radon can only be detected with testing. Less than 20% of Utahns have tested their homes for radon.

Tobacco



Introduction to Tobacco

Tobacco use is the single most important risk factor for lung cancer and the leading cause of preventable death in the U.S.^{55,56} Lung cancer is the leading cause of cancer-related death in Utah and the U.S. Utah adult and youth tobacco use rates remain the lowest in the nation. In fact, Utah is the first state in the nation to meet the Healthy People 2020 goal of decreasing adult smoking to less than 12%. In 2014, 9.5% of Utah adults (approximately 190,000 individuals) reported that they currently smoked cigarettes and 3% of adults reported use of chewing tobacco, snuff, or snus.¹⁴

UCAN supports partners who work to reduce tobacco use and tobacco-related disease in Utah through education, policy changes, and cessation and control programs.

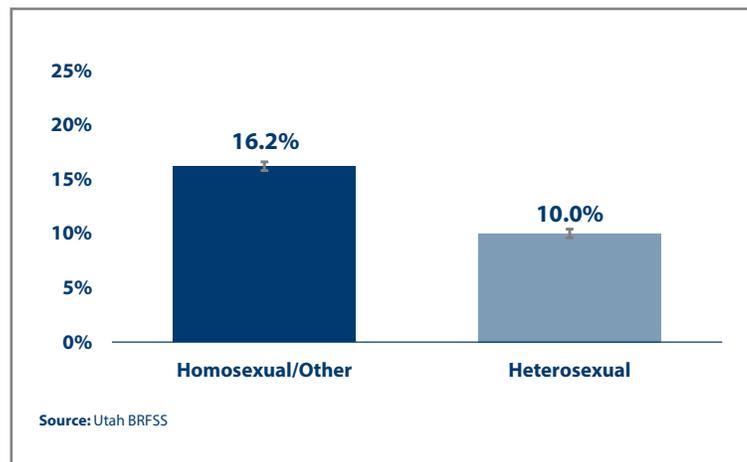
Disparities in Tobacco Use

The prevalence of tobacco use varies significantly among different population groups and socio-demographic characteristics such as race, ethnicity, geographic location, income and education level, gender, and sexual orientation, many of which correlate with other health disparities.

Utah males have higher rates of smoking compared to females.

Smoking rates are significantly higher among the LGBTQ community in Utah¹⁴ (Figure 30).

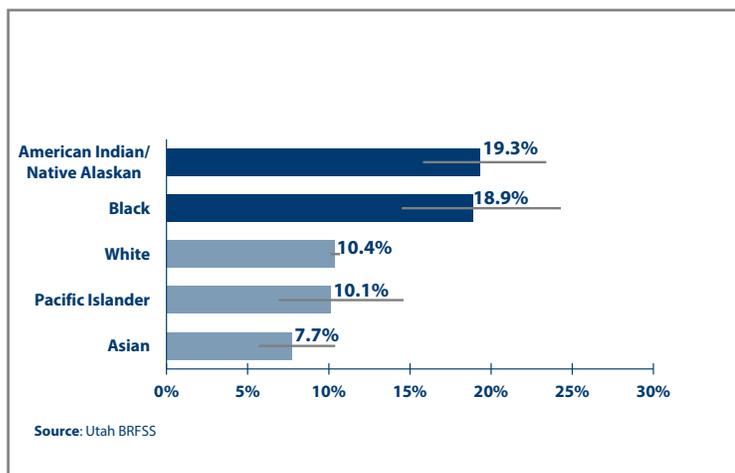
FIGURE 30 Current Cigarette Smoking by Sexual Orientation, Utah 2012-2014



*Age-adjusted

FIGURE 31 Current Cigarette Smoking by Race, Utah 2010-2014

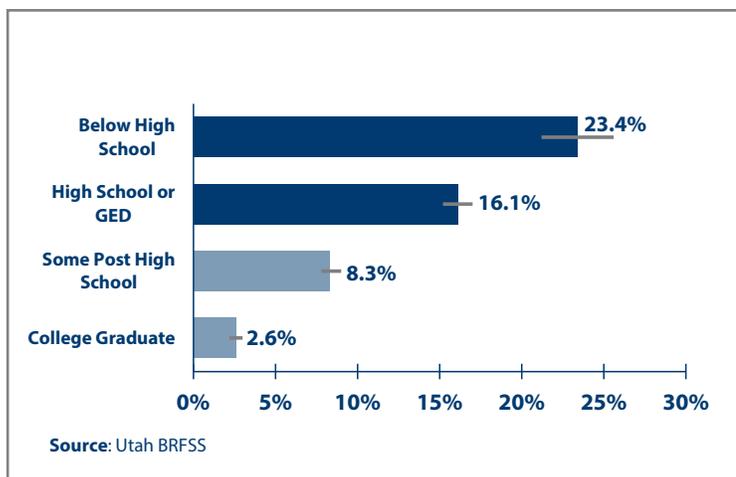
Utah American Indians/Alaskan Natives and Black populations had significantly higher rates of smoking in Utah compared to all other racial and ethnic groups¹⁴ (Figure 31).



*Age-adjusted

FIGURE 32 Current Cigarette Smoking by Education Orientation, Utah 2012-2014

Populations with lower incomes and educational levels had the highest rates of smoking in Utah¹⁴ (Figure 32).



*Age-adjusted

Current Tobacco Partners

The Utah Department of Health Tobacco Prevention and Control Program (TPCP) works with partners to implement proven, comprehensive strategies to reduce tobacco use and related disease and death in Utah. TPCP's partners across the state work to pass local policies to protect everyone from the dangers of tobacco use and secondhand smoke. The tobacco control strategic plan includes goals and objectives aimed at making high-level policy, systems, and environmental changes to affect tobacco use rates in Utah. The TPCP and its partners are committed to working toward implementing policies that will de-normalize the use of tobacco in our state. To date, dozens of policies across the state have been passed which prevent smoking in bars, clubs, worksites, parks, recreation centers, music venues, fairs, apartment buildings, hospitals, schools, and other public areas.

The Utah Tobacco Free Alliance (UTFA) is a statewide coalition established to improve the quality of life for all Utah residents by eliminating tobacco use statewide. The members of the UTFA include concerned citizens, businesses, non-profit organizations, agencies, and healthcare professionals that advocate and advance tobacco prevention, cessation, and control; improve, energize, and facilitate tobacco prevention and cessation in clinical settings; partner with healthcare systems to facilitate sustainable change in reducing tobacco use and prevalence; and develop and facilitate comprehensive tobacco-free workplace and cessation policies.

Opportunities for UCAN Collaboration

- Continue to partner with and support the TPCP and UTFA.
- Support the implementation of the Policy Agenda for Tobacco Prevention and Control in Utah.
- Encourage members to advocate for tobacco-free policies within their workplace organization.

Partner Strategies

Strategy A: Raise the price of tobacco products.

Activities

- 1 Work with partners to educate policy makers and local leaders about the effectiveness of reducing smoking rates by increasing taxes on tobacco products.
- 2 Provide training and materials to partners who wish to educate local leaders.
- 3 Educate policy makers about the benefits of a federal tax increase in reducing the consumption of tobacco products.

Strategy B: Maintain funding for sustainable and comprehensive tobacco prevention and control programs.

Activities

- 1 Work with a media vendor to increase public awareness of the Utah TPCP and promote program successes.
- 2 Work with local partners to showcase successes.
- 3 Create an annual report to detail program efforts and share information with legislators.
- 4 Ensure that when legislation that could generate revenue is available, a portion is allocated to tobacco prevention and control.

Strategy C: Reduce exposure to secondhand smoke.

Activities

- 1 Increase the number of government-owned and private worksites with comprehensive tobacco-free policies.
- 2 Increase the number of colleges, universities, and technical/trade schools with comprehensive tobacco-free policies.
- 3 Increase the percentage of Utahns who do not allow smoking inside their home.

Strategy D: Expand efforts in the retail environment.

Activities

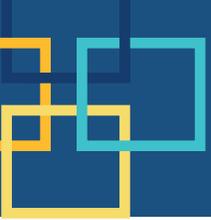
- 1 Increase the legal age for purchasing tobacco products from 19 to 21.
- 2 Increase the number of jurisdictions with policies that regulate retail advertising, tobacco discounts, or density of retail outlets.
- 3 Increase the number of jurisdictions with policies that regulate the retail licensing for the sale of electronic nicotine delivery systems (ENDS).
- 4 Decrease youth exposure to tobacco marketing by restricting promotion at the point-of-sale via policy initiatives adopted by Outrage, a statewide, youth-led, anti-tobacco coalition.

Strategy E: Increase cessation services.

Activities

- 1 Promote tobacco cessation counseling and increase the number of self-referrals to the Utah Tobacco Quit Line.
- 2 Improve Utah Tobacco Quit Line referral interventions for healthcare systems and providers.

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Glossary

Age-adjusted: Also known as age standardization, is a statistical technique used to make fairer comparisons between different health statistics. Age-adjusting ensures that differences from one year to another, or between one geographic area and another, are not due to differences in the age distribution of the populations being compared. All age-adjusted rates presented in this plan are adjusted to the 2000 U.S. standard population.

BMI: Body Mass Index (BMI) is a person's weight in pounds divided by the square of height in inches. A high BMI can be an indicator of high body fatness. BMI can be used to screen for weight categories that may lead to health problems but it is not diagnostic of the body fatness or health of an individual.

BRFSS: The Behavioral Risk Factor Surveillance System (BRFSS) is a system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services.

Cancer: A disease in which abnormal cells divide uncontrollably. Cancer cells can invade nearby tissues and also spread to other parts of the body through the blood and lymph systems. Also, cancer is the name given to a collection of related diseases. In all types of cancer, some of the body's cells begin to divide without stopping and spread into surrounding tissues.

Clinical Trial: A research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include placebo or other controls) to evaluate the effects of those interventions on health-related biomedical or behavioral outcomes.

Colonoscopy: Colonoscopy is a procedure in which a trained specialist uses a long, flexible, narrow tube with a light and tiny camera on one end, called a colonoscope or scope, to look inside the rectum and colon. Colonoscopy can show irritated and swollen tissue, ulcers, polyps, and cancer.

Community Health Worker (CHW): Members of a community who serve as a liaison, link, intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery.

Disparities: Disparities refer to differences in access to or availability of facilities and services. Health status disparities refer to the variation in rates of disease occurrence and disabilities between socioeconomic and/or geographically defined population groups.

Ethnicity: Of or relating to large groups of people classed according to common racial, national, tribal, religious, linguistic, cultural origin, or background.

Evidence-Based Practice: Evidence-Based Practice (EBP) is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of the individual patient.

Genetic Counseling: A communication process between a specially trained health professional and a person concerned about the genetic risk of disease. The person's family and personal medical history may be discussed and counseling may lead to genetic testing.

Genomics: The study of the complete genetic material, including genes and their functions, of an organism.

Health Policy: Health policy refers to decisions, plans, and actions that are undertaken to achieve specific healthcare goals within a society. An explicit health policy can achieve several things. First, it defines a vision for the future which in turn helps to establish targets and points of reference for the short and medium term. Second, it outlines priorities and the expected roles of different groups. And third, it builds consensus and informs people.

HMO: A health maintenance organization (HMO) is an organization that provides or arranges managed care for health insurance, self-funded healthcare benefit plans, individuals, and other entities in the U.S. and acts as a liaison with healthcare providers (hospitals, doctors, etc.) on a prepaid basis.

HPV: Human papillomavirus (HPV) is a type of virus that can cause abnormal tissue growth (for example, warts) and other changes to cells. Infection for a long time with certain types of HPV can cause cervical or other cancers.

Incidence: The number of new cases of a disease diagnosed each year.

Mammogram: An x-ray of the breast that is taken with a device that compresses and flattens the breast.

Mortality: A term used for death rate, or the number of deaths in a certain group of people in a certain period of time.

Obesity/Overweight: Labels for ranges of weight that are greater than what is generally considered healthy for a given height. The terms also identify ranges of weight that have been shown to increase the likelihood of certain diseases and other health problems. An adult who has a BMI between 25 and 29.9 is considered overweight. An adult who has a BMI of 30 or higher is considered obese (see above for definition of BMI).

Pap Test: A procedure in which a small brush or spatula is used to gently remove cells from the cervix so they can be checked under a microscope for cervical cancer or cell changes that may lead to cervical cancer.

Prevention: Action taken to decrease the chance of getting a disease or condition. For example, cancer prevention includes avoiding risk factors (such as smoking, obesity, lack of exercise, and radiation exposure) and increasing protective factors (such as getting regular physical activity, staying at a healthy weight, and having a healthy diet).

Quality of Life: The overall enjoyment of life. Studies on the effects of cancer and its treatment on the quality of life measures aspects of an individual's sense of well-being and ability to carry out various activities.

Race: A group of people united or classified together on the basis of common history, nationality, or geographic distribution.

Screening: Checking for disease when there are no symptoms. Since screening may find diseases at an early stage, there may be a better chance of curing the disease. Examples of cancer screening tests are the mammogram (breast), colonoscopy (colon), and Pap test and HPV test (cervix). Screening can also include checking for a person's risk of developing an inherited disease by doing a genetic test.

SEER: The Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute works to provide information on cancer statistics in an effort to reduce the burden of cancer among the U.S. population.

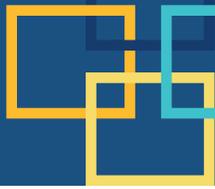
Structural barriers: Non-economic burdens or obstacles that make it difficult for people to access cancer screening. The action steps address access issues to cancer screening including offering mobile mammography units in rural settings, free or low cost screening services, patient navigators, and community health workers.

Survivor: One who remains alive and continues to function during and after overcoming a serious hardship or life-threatening disease. In cancer, a person is considered to be a survivor from the time of diagnosis until the end of life.

Survivorship: In cancer, survivorship focuses on the health and life of a person with cancer post treatment until the end of life. It covers the physical, psychosocial, and economic issues of cancer, beyond the diagnosis and treatment phases. Survivorship includes issues related to the ability to get healthcare and follow-up treatment, late effects of treatment, second cancers, and quality of life. Family members, friends, and caregivers are also considered part of the survivorship experience.

YRBSS: The Youth Risk Behavior Surveillance System (YRBSS) monitors health-risk behaviors that contribute to the leading causes of death and disability among youth and adults in the United States.

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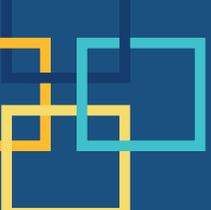
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