

# WYOMING CANCER PLAN

2021-2025



**WYOMING**  
**CANCER COALITION**



# Wyoming Cancer Plan 2021-2025

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Mark Gordon  
Governor

Michael A. Ceballos  
Director, Wyoming Department of Health

For more information, please contact:

Wyoming Cancer Program  
Comprehensive Cancer Control  
Wyoming Department of Health  
122 West 25th Street, 3rd Floor West  
Cheyenne, WY 82002  
307-777-8609  
<https://wyomingcancercoalition.org/>

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## Leadership

Alexia Harrist, MD, PhD  
State Health Officer  
Public Health Division



Public Health Division  
122 West 25<sup>th</sup> Street, 3<sup>rd</sup> Floor West  
Cheyenne, WY 82002  
(307) 777-6340 • 866-571-0944  
Fax (307) 777-8264 • [www.health.wyo.gov](http://www.health.wyo.gov)



Michael A. Ceballos  
Director

Mark Gordon  
Governor

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Ref: AH-2020-043

Dear Wyoming Resident:

The Wyoming Cancer Program is pleased to present the Wyoming Cancer Control Plan (WCCP) for 2021-2025. The WCCP goal is to reduce the cancer burden and improve the lives of all Wyoming residents. The efforts of the Wyoming Cancer Coalition (WYCC) members remain focused on achieving that goal. Thank you to the WYCC and stakeholders for preparing the WCCP.

The WCCP is a comprehensive document intended to establish the vision for cancer-related efforts. The WCCP provides a complete program outlining goals, objectives and strategies for prevention, early detection and screening, quality of life for survivors, and childhood cancer. It promotes health equity and provides a call to action for all Wyoming residents.

All individuals, all families are touched some way, somehow, some time in their lives by cancer. Whether it is a parent, a sibling, a child, a friend, a work colleague, everyone is affected; none of us are strangers to this disease. The WCCP is the road map that tells the story of where we have been and where we are going. The WCCP is another tool to add to the resources already available statewide.

Utilizing the WCCP as a blueprint, the WYCC will develop workgroups of engaged stakeholders to focus on specific goals to lessen the burden of cancer in Wyoming. These goals will be followed up by strategic objectives and action steps stakeholders and individuals can take.

The success of the WYCC is directly related to the efforts of its members. The WYCC relies on individuals who are passionate about reducing the burden of cancer. The WYCC welcomes new members and encourages individuals from all walks of life to participate. Visit the WYCC website at: [wyomingcancercoalition.org](http://wyomingcancercoalition.org) to join, or learn more.

The work of many hands is vital to lessening the impact of cancer in Wyoming. Thank you to the individuals and sponsoring organizations who have dedicated time and expertise to developing the WCCP. Thank you to all Wyomingites for joining the fight against cancer; together we can make a difference.

Sincerely,

Alexia Harrist, MD, PhD  
State Health Officer  
Public Health Division

AH/SJ/te

c: Star Jones, CPM, Manager, Wyoming Cancer Program, Public Health Division  
Stephanie Pyle, MBA, Senior Administrator, Public Health Division

<b>Wyoming Cancer Plan</b>	1
About the Wyoming Cancer Coalition	2
The Development of the Plan	4
Ongoing Evaluation of Progress	5
Cancer Burden in Wyoming	6
Health Disparities	9
Demographics of the State	10
Unique Challenges in Wyoming	13
Data Sources	15
Call to Action	16
Ways to Get Involved	17
<b>Goals &amp; Strategies</b>	18
Goals at a Glance	18
Prevention	19
Early Detection and Screening	24
Survivorship	27
Childhood Cancer	30
Coalition Infrastructure	33



# Wyoming Cancer Plan

Cancer is the second leading cause of death among Wyomingites, killing nearly 1,000 people each year. For those that survive, there are often long-term physical, mental, and financial consequences that continue to burden survivors for years after their treatments are complete.

Fortunately, there are proven strategies to reduce the burden of cancer. Improved treatment options are now available, with fewer side effects and long-term effects than treatments of the past. There are also more ways than ever before to prevent cancers or find them early, offering improved outcomes. For example, human papillomavirus (HPV) vaccination and lung cancer screening are two relatively new and promising opportunities to curb cancer diagnoses and death.

The Wyoming Cancer Plan is a strategic plan challenging stakeholders from across the state to come together to reduce the burden of cancer. It consists of goals and strategies to address gaps in Wyoming. Healthcare providers, non-profits, worksites, universities, and public health professionals will implement the strategies by coming together through the Wyoming Cancer Coalition (WYCC). Everyone with an interest in decreasing the burden of cancer in Wyoming communities can play a vital role in following the Plan.

Numerous evidence-based strategies have been shown to reduce the burden of cancer in communities. The Wyoming Cancer Plan does not outline all these strategies. Instead, the Plan highlights key priorities and focuses on feasible implementation. The Plan is intended to be focused, measurable and actionable.

## Cancer Control Continuum

The Wyoming Cancer Plan identifies actionable priorities across the cancer control continuum, from primary prevention through cancer survivorship, with a specific section focusing on childhood cancer.



# About the Wyoming Cancer Coalition

The Wyoming Cancer Coalition (WYCC) is made up of stakeholders from various sectors committed to decreasing the burden of cancer in Wyoming. Coalition members include cancer survivors and caregivers, non-profit and volunteer organizations, healthcare providers, public health professionals, and others who come together to align their efforts and leverage their resources to meet WYCC's mission. The WYCC's work is driven and directed by a Steering Committee, while action occurs through strategic and focused efforts of four Workgroups.



## Coalition Mission

To develop and implement a collaborative and comprehensive approach to address cancer prevention, early detection, access to healthcare, diagnosis and treatment, and quality of life services to lessen the impact of cancer in Wyoming.



# About the Wyoming Cancer Coalition

The WYCC was formed in 2004, with its first Cancer Plan published in 2005. Since then, the WYCC has supported notable successes, including:

- Wyoming Cancer Control Act signed into law to provide \$1.6 million for enhanced cancer screening efforts (March 2007)
- County Cancer Resource Centers were regionalized and renamed to Wyoming Cancer Resource Services to provide cancer resource services statewide (July 2009)
- Camp Courage launched for children and families impacted by childhood cancer (August 2012)
- Awarded funding to pilot stool-based colorectal cancer screening that resulted in updating rules to Wyoming Colorectal Cancer Screening Program to include stool-based testing moving forward (2015)
- Developed mammography Community Voucher Program to reach women not eligible for the Wyoming Breast and Cervical Cancer Screening Program (2016)
- Partnered with Impact Melanoma (a national organization) and was the first state to have sunscreen dispensers available at all state park locations (2018)
- WYCC releases the 4th iteration of the Wyoming Cancer Plan for 2021-2025 (February 2021)

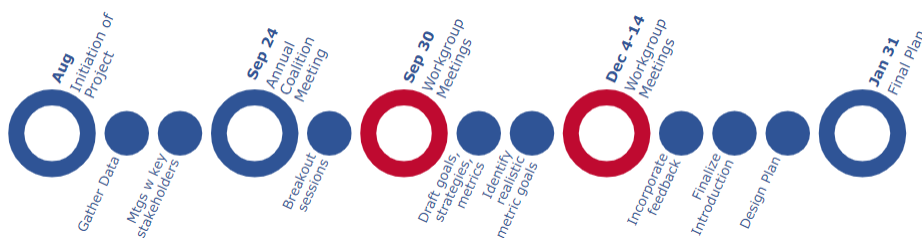


# The Development of the Plan

The development of the 2021-2025 Wyoming Cancer Plan was rooted in understanding the unique needs in Wyoming, along with its existing assets. To prioritize goals and strategies, the Wyoming Cancer Coalition (WYCC) gathered the most recent data available on a variety of cancer-related metrics. This included data on demographics, cancer incidence, mortality, screening, and lifestyle behaviors (e.g., smoking). These data were analyzed to determine the greatest opportunities for the Wyoming cancer community to work on during the five-year Plan. It was also important to align the Plan's priorities with existing statewide initiatives. To better understand current efforts, individual meetings were held with key stakeholders.

After the initial phase of data and information gathering, working sessions were conducted with members of the WYCC. These sessions included an initial meeting with the Steering Committee to understand the vision for the next iteration of the Wyoming Cancer Plan, breakout sessions with the WYCC members at large to understand the current plan's utilization and opportunities observed in everyday work, and Workgroup sessions on specific cancer continuum topics. Current data were presented during Workgroup sessions to frame conversations around the gaps and opportunities relevant to each topic. WYCC members shared successful efforts implemented to date as well as barriers experienced. The Workgroup conversations were vital to selecting evidence-based strategies that would be both relevant and effective at addressing the needs identified in the data. After these rich discussions, priority goals and strategies were drafted for the Plan. Additional Workgroup meetings were held to ensure that the initial input was translated into meaningful and feasible goals and strategies.

The WYCC's Steering Committee provided input for selecting realistic and measurable goals of the Plan. Finally, cancer survivors shared their personal stories. These stories demonstrate the real impact this work has on Wyomingites.





## Ongoing Evaluation of Progress

Measurable goals with corresponding metrics are a key component of the Plan. Measuring progress of the goals within the Plan using updated data will allow Wyoming Cancer Coalition (WYCC) members and new stakeholders to regularly evaluate implementation effectiveness and identify ongoing areas of opportunity. The WYCC will also be able to celebrate successes and build on positive momentum.

Annual meetings provide an ideal place to share progress updates and disseminate findings. With all WYCC members in attendance, the Coalition can discuss barriers and brainstorm additional opportunities for ongoing success to reduce the burden of cancer in Wyoming. Annual meetings also provide a platform to recognize the work being accomplished and positive impact being made.

The work of strategy implementation will occur during regular workgroup meetings. During these meetings, specific action plans for strategy implementation and follow-up will occur. The workgroup meetings allow coalition members to be detail-oriented and thoughtful about target populations along with identification of additional stakeholders. Finally, e-newsletters will ensure ongoing communication and stakeholder engagement across the state.

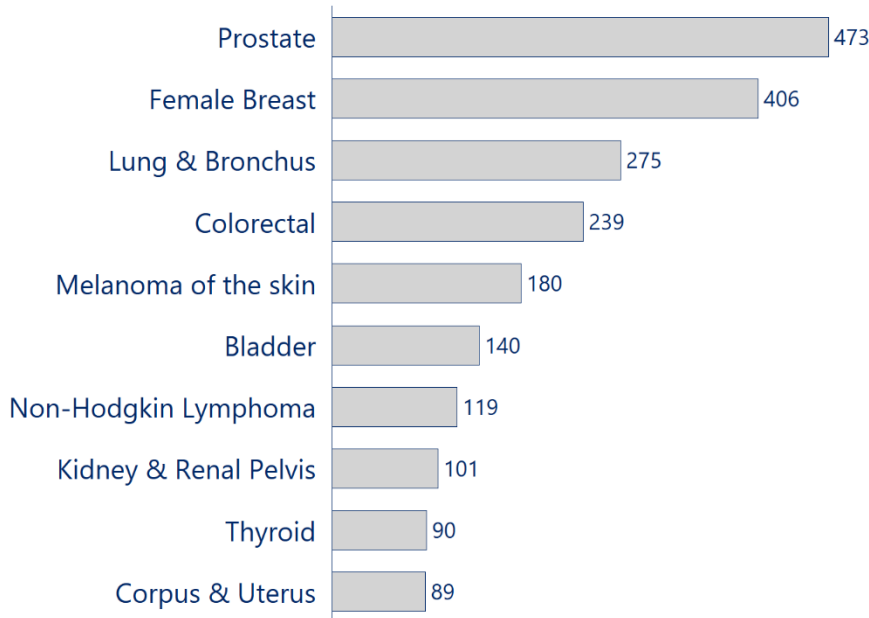
# Cancer Burden in Wyoming

High-quality cancer data is one of the best tools available to address the burden of cancer. The Wyoming Cancer Surveillance Program collects data on all cancer cases diagnosed in the state. These data provide essential information on the types of cancers diagnosed in Wyoming, the demographics of those diagnosed with cancer and the outcomes of their disease. These data were vital in the development of the Plan. The Wyoming Cancer Coalition (WYCC) used these data to choose strategies and goals that would have the biggest possible impact on cancer in Wyoming.

## Cancer Incidence

In Wyoming, the most common types of cancer are prostate, female breast, lung, colorectal and melanoma.<sup>1</sup> In 2018, these five cancers made up over half of all the cancers diagnosed in the state (56.4%). Men are more likely to get cancer compared to women. Fortunately, cancer incidence rates for both men and women are lower in Wyoming than the U.S. average.<sup>2</sup> Cancer rates in Wyoming are highest among people who identify as White (both Hispanic and non-Hispanic).<sup>1</sup>

## Top 10 Types of Cancer Diagnosed in Wyoming



Source: Wyoming Cancer Surveillance Program, 2018

<sup>1</sup> Wyoming Cancer Surveillance Program. (2018).

<sup>2</sup> The Centers for Disease Control and Prevention. (2017). United States Cancer Statistics.

2,790

New Cases in 2018<sup>1</sup>

## Breast & Prostate Cancer

are the most common types of cancers diagnosed<sup>1</sup>

89%

of cancers are diagnosed among those

over 50 years of age<sup>1</sup>

On average,

26 children

are diagnosed with cancer each year<sup>1</sup>

# Cancer Burden in Wyoming

Cancer is the **Second** leading cause of death in Wyoming<sup>2</sup>

**19.8%** of all deaths in Wyoming in 2019 were due to cancer<sup>4</sup>

**998 Deaths** in 2018<sup>2</sup>

**Lung cancer** kills more than breast cancer and prostate cancer combined<sup>2</sup>

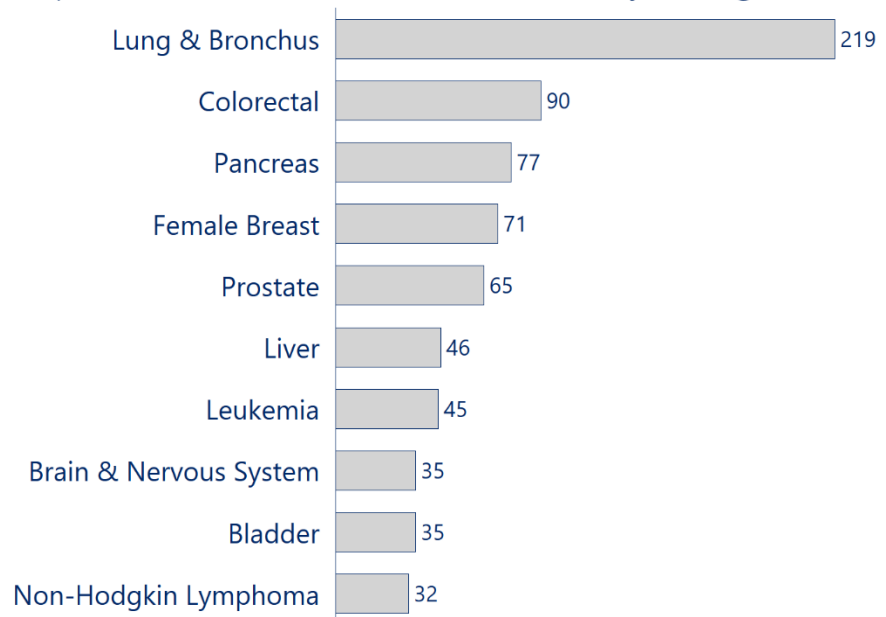
**96%** of all cancer deaths occur in people over 50 years of age<sup>2</sup>

## Cancer Deaths

Lung cancer is by far the most deadly form of cancer, both in Wyoming and nationally.<sup>1</sup> In 2018, lung cancer deaths made up 22% of all cancer deaths in the state.<sup>2</sup> Following lung cancer, colorectal, pancreatic, breast, and prostate cancers were the next leading causes of cancer death in the state.<sup>2</sup> Men are more likely to die of cancer compared to women.<sup>2</sup> Cancer mortality rates in Wyoming are highest among people who identify as White or American Indian/Alaska Native,<sup>2</sup> despite the fact that White individuals were much more likely to be diagnosed with cancer.<sup>3</sup>

Fortunately, screening for lung, breast and colorectal cancers can identify these cancers earlier and improve survival. In addition, death rates for the most common types of cancer in Wyoming are comparable with the national average or even below the national average.<sup>1</sup>

## Top 10 Causes of Cancer Death in Wyoming



Source: Wyoming Vital Statistics Program, 2018

1 The Centers for Disease Control and Prevention. (2017). United States Cancer Statistics.

2 Wyoming Vital Statistics Services. (2018).

3 Wyoming Cancer Surveillance Program. (2018).

4 Wyoming Vital Statistics Services. (2019).

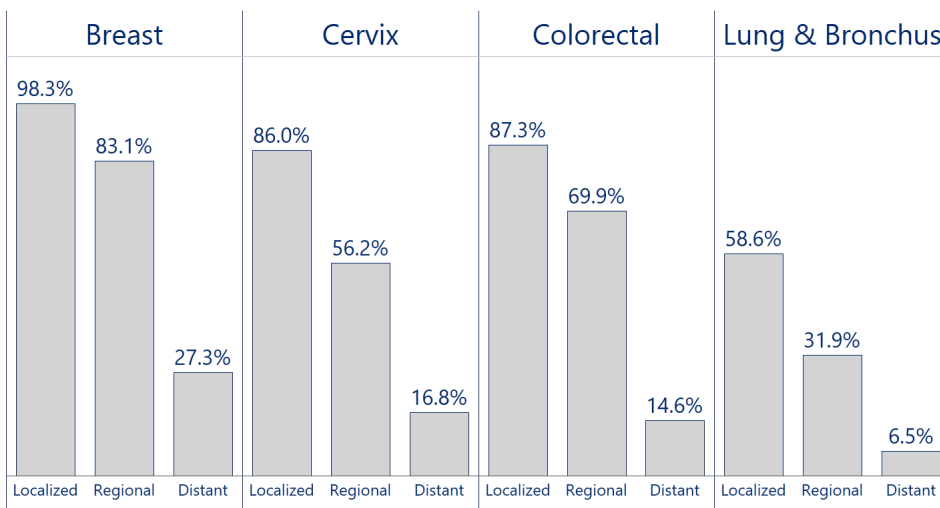
# Cancer Burden in Wyoming

## Survival Rates

Survival varies widely among the different types of cancer. In Wyoming, the most common types of cancer diagnosed are prostate, breast, lung, colorectal and melanoma.<sup>1</sup> Relative survival ratios for these cancers range from 92.7% for prostate cancer to just 19.7% for lung cancer, according to nationally available statistical models.<sup>2</sup>

Many factors impact how likely a person is to survive their cancer diagnosis and treatment. Among them, stage is one of the most important factors. A cancer's stage is an indication of whether the cancer has spread into the lymph nodes or other organs. Screening helps to catch cancers at an early stage and improve survival. Screening tests are available for breast, colorectal, cervical, and lung cancers.

## Catching Cancer Early Improves Survival



Source: Cancer in North America: 2013-2017, Volume Four: Cancer Survival in the United States and Canada 2010-2016.

An estimated  
**40,200 Cancer Survivors**

were living in Wyoming as of 2020<sup>3</sup>

**72.3%**  
of Wyomingites with cancer did not die of their cancer within five years of diagnosis<sup>1</sup>

1 Wyoming Cancer Surveillance Program. (2017).

2 North American Association of Central Cancer Registries. (2020, June). *2013-2017: Cancer in North America*.

3 Wyoming Cancer Surveillance Program. (2020).



To address the problem of health disparities, target populations are identified for many of the goals in the Plan

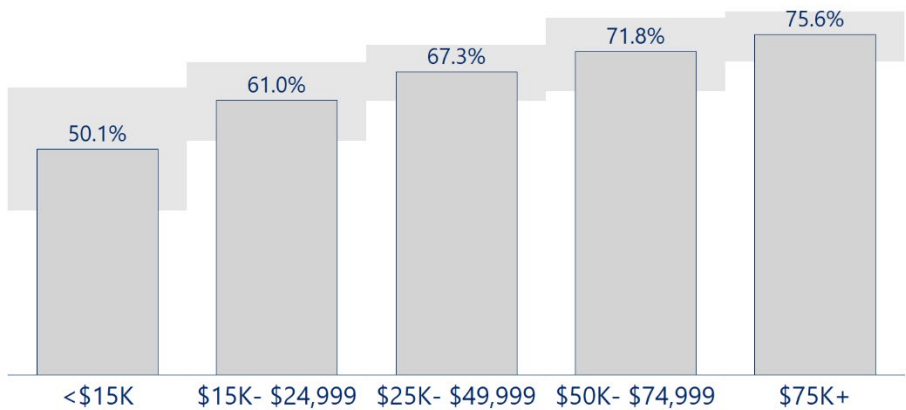
# Health Disparities

Health disparities are preventable differences in health between different groups of people. They often appear due to social or economic differences. Individuals with fewer opportunities to experience optimal health often experience a higher burden of disease.

To address the problem of health disparities, target populations are identified for many of the goals and strategies in the Plan. These target populations identify the opportunities to maximize reach and overall impact in an equitable manner. For example, breast cancer screening is vital in detecting cancer early. Early detection can lead to improved outcomes and survival. When reviewing breast cancer screening rates, there is a difference between those with incomes less than \$15,000 per year and those with incomes greater than \$25,000 per year.<sup>1</sup> This gap in screening can lead to disparities in breast cancer burden. Therefore, while it is essential to recommend breast cancer screening to all eligible women, it is especially important to address the gap in screening rates due to income.

## Breast Cancer Screening Rates by Income

Defined as women age 50-75 who reported having a mammogram in the past two years. Gray shaded areas behind the bars represent 95% confidence intervals.



Source: Wyoming Behavioral Risk Factor Surveillance System, 2018

<sup>1</sup> Wyoming Behavioral Risk Factor Surveillance System. (2018).

# Demographics of the State

The Wyoming Cancer Plan serves to positively impact the residents of Wyoming. Therefore, it is important to understand Wyoming's population and how cancer may impact different groups of people.

## Age

The age distribution of the population of Wyoming is similar to that of the U.S.<sup>1</sup> The median age of Wyomingites is 38.1 years, whereas the U.S. median age of 38.5.<sup>1</sup> This is important because cancer is a disease of aging. About 89% of all cancers occur in individuals over age 50,<sup>2</sup> even though this age group only accounts for 36% of the population.<sup>1</sup>

## Race/ Ethnicity

The majority of the population of Wyoming is White (90.9%).<sup>1</sup> Most of these individuals are non-Hispanic White, with just over 10% identifying as Hispanic.<sup>1</sup> American Indians/Alaska Natives (AI/AN) are the next largest racial population, making up 2.8% of the population.<sup>1</sup> While this percentage may seem small, this is relevant when compared to the U.S. population of only 1.1% American Indian/Alaska Native.<sup>1</sup>

It is important to note a key cancer disparity that exists among racial groups in Wyoming. Compared to White Wyomingites, American Indians and Alaska Natives in Wyoming are less likely to get cancer but just as likely to die from it.<sup>5</sup>



Compared to White Wyomingites, American Indians & Alaska Natives in Wyoming are less likely to get cancer but just as likely to die from it<sup>5</sup>

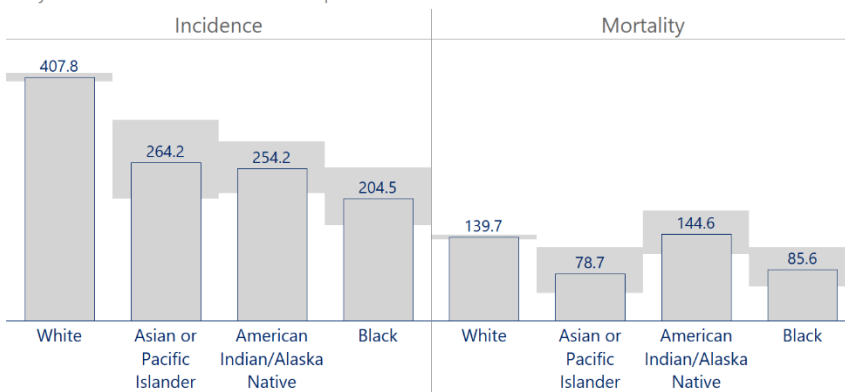
The Wind River Indian Reservation in central Wyoming is home to the Eastern Shoshone and the Northern Arapaho tribes.

More than 26,000 people reside on the reservation, with almost 8,000 identifying as American Indian/Alaska Native.<sup>3</sup>

At 2.2 million acres, it is the 7th largest reservation in the U.S.<sup>4</sup>

## Incidence and Mortality Rates, by Race

Gray shaded areas behind the bars represent 95% confidence intervals



Source: Wyoming Cancer Surveillance Program & Vital Statistics Program, 2014-2018

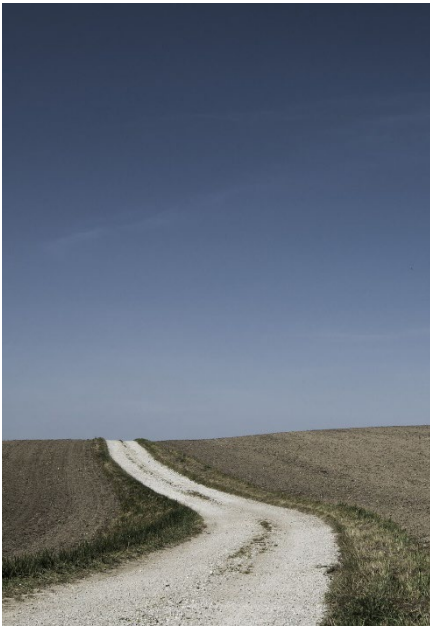
1 United States Census Bureau, The American Community Survey. *2019 ACS 1-year Estimates Data Profile*.

2 Wyoming Cancer Surveillance Program. (2017).

3 United States Census Bureau, The American Community Survey. *My Tribal Area*.

4 Wind River Visitors Council. (2021). *Wind River Indian Reservation*.

5 Wyoming Cancer Surveillance Program. (2014-2018).



More than  
**1 in 10**  
 Wyomingites lives  
 below the  
**poverty level**<sup>1</sup>

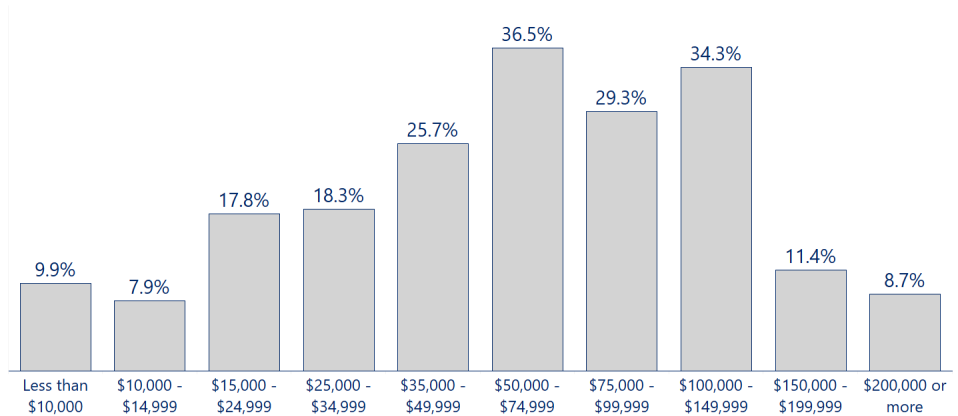
Compared to the U.S.  
 population, Wyoming  
 has a smaller proportion  
 of the population with  
**a Bachelor's  
 or Graduate  
 degree**<sup>3</sup>

# Demographics of the State

## Income

Wyoming has a smaller percentage of the population living in poverty than the U.S. (11% vs. 13.4%, respectively).<sup>1</sup> However, more than 1 in 10 Wyomingites still live below the poverty level.<sup>1</sup> This is an important demographic because lower-income populations face disparities along all stages of the cancer continuum. For example, 35.9% of people with an annual income of less than \$15,000 are current cigarette smokers versus 10.4% of individuals with an annual income of \$75,000 or more.<sup>2</sup> Income-related disparities also exist for cancer screening, stage at diagnosis, and survival.

## Household Incomes in Wyoming



Source: American Community Survey, Data Tables & Tools, 2015-2019 5-year Data Profile

## Education

Income is often associated with educational attainment, as are health behaviors. While Wyomingites have income distribution similar to the rest of the U.S. population,<sup>1</sup> there are interesting differences in educational attainment. Compared to the U.S., Wyoming has a larger percentage of individuals with a high school diploma, some college, or an Associate's degree and a lower proportion of the population with a Bachelor's or Graduate degree.<sup>3</sup> Fewer disparities exist across different educational attainment groups, but some do exist. For example, colorectal cancer screening completion is significantly higher among college graduates than individuals with a high school diploma or some college.<sup>4</sup>

<sup>1</sup> United State Census Bureau, The American Community Survey. *2015-2019 ACS 5-year Data Profile*.

<sup>2</sup> Wyoming Behavioral Risk Factor Surveillance System. (2019).

<sup>3</sup> United State Census Bureau, The American Community Survey. *2019 ACS 1-year Estimates Data Profile*.

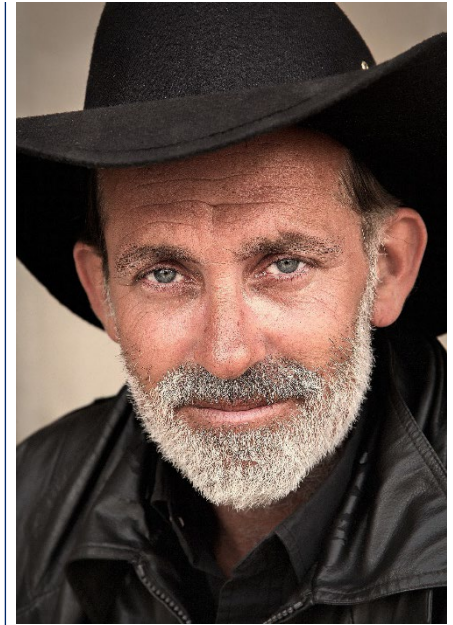
<sup>4</sup> Wyoming Behavioral Risk Factor Surveillance System. (2018).



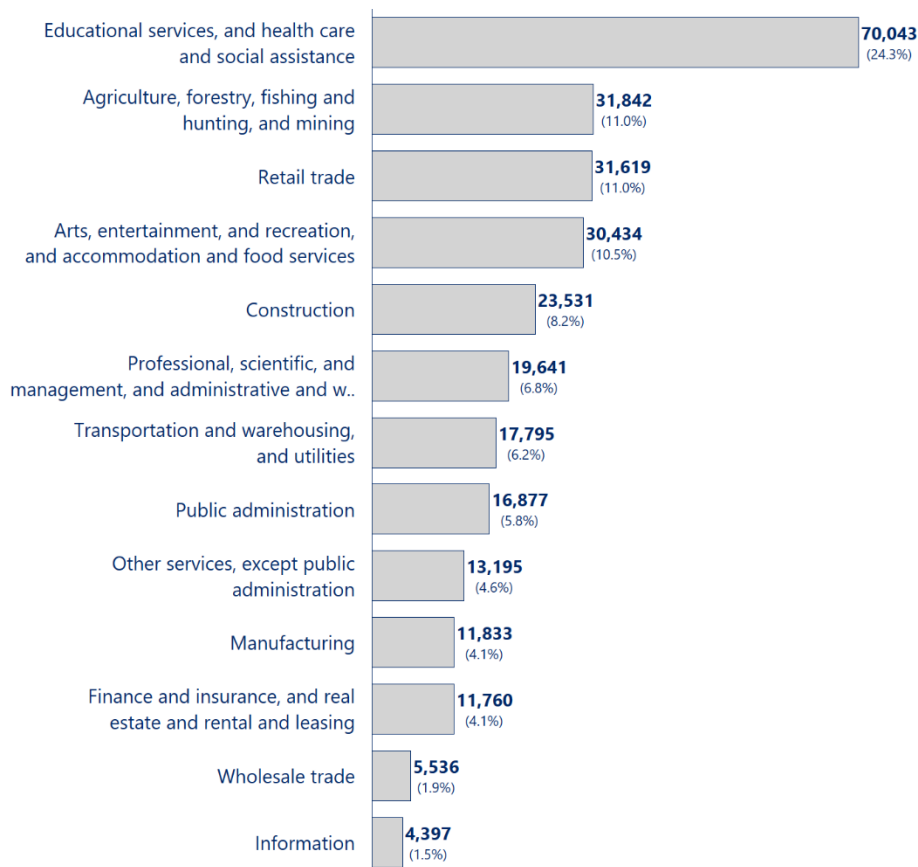
# Demographics of the State

## Economy

Almost 25% of jobs in Wyoming fall into the category of education, healthcare, and social assistance.<sup>1</sup> The next biggest industry in Wyoming is agriculture, forestry, fishing and hunting, and mining. This category, associated with the state's robust natural resources, accounts for an estimated 11% of jobs in the state.<sup>1</sup> This highlights potential employers who would make valuable partners when implementing worksite strategies outlined in this plan.



## Number of Jobs in Wyoming by Industry, 2019



Source: American Community Survey, Data Tables & Tools, 2015-2019 5-year Data Profile

Almost  
**25%**  
of jobs in Wyoming are  
**Education,  
Healthcare,  
and  
Social  
assistance<sup>1</sup>**

<sup>1</sup> United State Census Bureau, The American Community Survey. 2015-2019 ACS 5-year Data Profile.

47%  
of Wyoming residents  
live in  
frontier areas<sup>1</sup>

## Unique Challenges in Wyoming

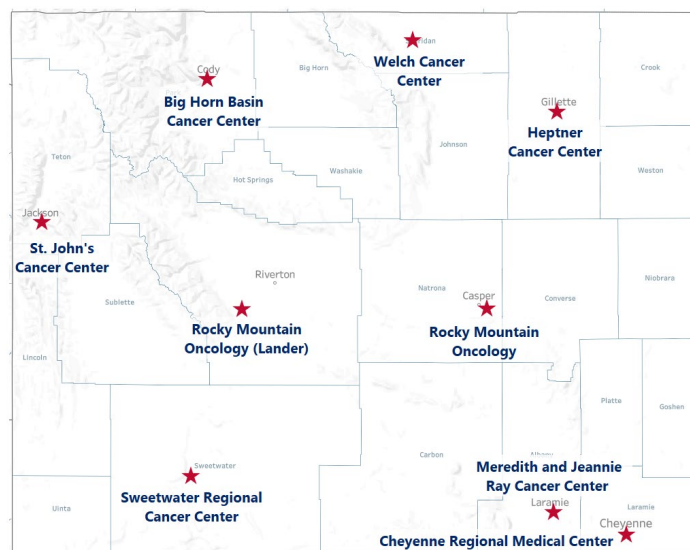
In many ways, Wyoming's population and socioeconomic factors are favorable for the health of its residents. The state's population is not older than the U.S. at large. Poverty rates are lower, and a larger proportion of people have at least a high school education. However, Wyomingites experience some unique challenges related to cancer. The two most notable challenges are travel time to a healthcare provider and healthcare access. Additionally, during the writing of this plan, the coronavirus pandemic continued to spread and impact the state's overall health and healthcare capacity.

### Travel to Care

Wyoming is the 9th largest state in the U.S. by area, yet the population size is relatively small. Seventeen out of its 23 counties are classified as frontier counties, meaning that there are fewer than six people per square mile.<sup>1</sup> Forty-seven percent of Wyoming residents live in frontier areas of the state.<sup>1</sup> This can impact travel time to healthcare services, as well as necessary cancer treatment and support services. Inclement weather may also impact transportation and travel time.

While there are cancer care facilities throughout the state, individuals may need to travel outside of Wyoming for complex cases of cancer. Because there are no childhood cancer care options in Wyoming, all children diagnosed with cancer must leave the state to access necessary treatment and care. This creates a huge burden for families and individuals.

## Cancer Centers in Wyoming



<sup>1</sup> Wyoming Department of Health, Office of Rural Health. (2021). *What is Rural*.

# Unique Challenges in Wyoming

## Healthcare Access

While geography itself can create a barrier to healthcare access, there are other components to consider. There are 19 primary care geographic health professional shortage areas (HPSA).<sup>1</sup> There are four dental health HPSAs and five mental health geographic HPSAs.<sup>1</sup> The five mental health HPSAs encompass all 23 counties in Wyoming. These HPSAs demonstrate limited healthcare capacity.

Limited healthcare access is also apparent in the Wyoming Behavioral Risk Factor Surveillance System (BRFSS) data (2018) with 42.7% of people reporting impaired access to healthcare. This is higher than the U.S. median of 33.5%. This is an unfortunate common theme also detailed in the State Health Assessment, where Wyoming residents cited access to care as the number one barrier to health in Wyoming.<sup>2</sup>

## COVID-19

By the spring of 2020, the coronavirus (COVID-19) pandemic was beginning to significantly impact social norms and healthcare services throughout the U.S. By December 2020, the U.S. reached more than 300,000 deaths due to COVID-19.<sup>3</sup> As of the publication of this Plan, Wyoming has reported more than 43,000 cases and 500 deaths due to COVID-19.<sup>4</sup> The immediate impacts of this communicable disease on individuals' behaviors and delivery of healthcare may also translate to an increased long-term burden of cancer. The COVID-19 pandemic has resulted in decreases in screening and delays in identifying new cancers.<sup>5</sup> The pandemic has also delayed delivery of cancer treatment for patients. Both of these impacts may negatively affect patient outcomes. An ongoing focus on the goals and strategies outlined in this plan will help to mitigate the long-term negative effects of delayed cancer screenings and treatment.

In Wyoming:

**32.2%**  
have no primary  
care doctor<sup>6</sup>

**14.6%**  
have no health  
insurance<sup>6</sup>

**13.2%**  
were unable to see  
a doctor because  
of the cost<sup>6</sup>

1 Health Resources & Services Agency. (2017, October 27). *HPSA Find*.

2 Wyoming Department of Health, Office of Performance Improvement and Health Equity. (2021). *State Health Assessment and Improvement Planning*.

3 The Centers for Disease Control and Prevention. (2021). CDC COVID Data Tracker.

4 Wyoming Department of Health, Infectious Disease Epidemiology. (2021). Coronavirus Disease 2019 (COVID-19).

5 Patt, D., Gordan, L., Diaz, M., Okon, T., Grady, L., Harmison, M., . . . Zhou, A. (2020). Impact of COVID-19 on Cancer Care: How the Pandemic Is Delaying Cancer Diagnosis and Treatment for American Seniors. *JCO Clinical Cancer Informatics*, (4), 1059-1071. doi:10.1200/cci.20.00134

6 Wyoming Behavioral Risk Factor Surveillance System. (2018).

# Data Sources

## **American Community Survey (ACS)**

The American Community Survey, conducted each year by the U.S. Census Bureau, is the leading source for information about America's population, education, housing and workforce.

## **Prevention Needs Assessment (PNA)**

The PNA is conducted every other year by the Wyoming Survey & Analysis Center at the University of Wyoming. The survey gathers information from middle and high school students about their substance use, attitudes on risky behaviors, mental health and wellness.

## **Wyoming Behavioral Risk Factor Surveillance System (BRFSS)**

The Wyoming BRFSS is an ongoing statewide telephone survey of adults. The survey's purpose is to gather information about health behaviors and factors known to contribute to or increase the risk of chronic disease, acute illness, injury, disability and premature death. Wyoming is funded and supported through the Centers for Disease Control and Prevention (CDC) to conduct BRFSS annually.

## **Wyoming Cancer Surveillance Program (WCSP)**

The Wyoming Cancer Surveillance Program (WCSP) is a statewide population-based cancer registry. The WCSP monitors cancer incidence through pathology reports and uniform reporting of information by healthcare providers in Wyoming.

## **Wyoming Department of Health, Immunization Unit**

The Immunization Unit in the Public Health Division of the Wyoming Department of Health monitors immunization data for a variety of vaccines, including the HPV vaccine. Aggregate data can be requested directly from the Unit staff.

## **Wyoming Vital Statistics Services**

Vital Statistics Services tabulates data from birth, death, stillbirth, marriage, divorce and annulment records filed with the office, and from transcripts of records from other states involving the death of a Wyoming resident or a birth to a mother who was a Wyoming resident.

# Call to Action

## 1. Join and participate in the Wyoming Cancer Coalition

Everyone plays an important role in supporting successful implementation of the Wyoming Cancer Plan. You can join the Wyoming Cancer Coalition and participate in a workgroup today!

To join, visit the WYCC webpage:

<https://wyomingcancercoalition.org/wycc-home/get-involved/>

## 2. Identify what strategies you can implement

The Plan outlines key strategies to implement to achieve each goal. Strategies require a collaborative approach by numerous stakeholders for successful implementation. The next page outlines stakeholder groups and the strategies that most closely align with their natural roles.

## 3. Apply for funding to implement strategies

In some cases, implementation of strategies may require additional financial resources. The WYCC accepts applications for mini-grants, typically around \$15,000. Applications are accepted on an ongoing basis, but funds must be spent by the following June.

For more information, visit the WYCC webpage:

<https://wyomingcancercoalition.org/minigrants/>



# Ways to Get Involved

		Healthcare	Cancer Centers	Public Health	Wyoming Cancer Resource Services	Non-Profit / Community Organization	K-12 Education	College / University	Employer / Business
<b>Prevention Goal 1</b> Tobacco Use	Strategy 1: Promote Cessation	★	★	★	★	★	★	★	★
	Strategy 2: Assess & Refer	★	★						
	Strategy 3: School Policies						★		
	Strategy 4: Community Policies								★
<b>Prevention Goal 2</b> HPV Vaccine	Strategy 1: Messaging	★	★	★	★	★	★	★	★
	Strategy 2: Quality Improvement	★							
	Strategy 3: Schools			★			★		
<b>Prevention Goal 3</b> Healthy Behaviors	Strategy 1: Lifestyle Change Programs	★	★	★	★	★		★	★
	Strategy 2: Worksites				★				★
	Strategy 3: Schools						★	★	
<b>Early Detection and Screening Goal 4</b> Breast, Cervical, and Colorectal	Strategy 1: Quality Improvement	★			★				
	Strategy 2: Promote Screening	★	★	★	★	★		★	★
	Strategy 3: Financial Support	★		★	★	★			★
	Strategy 4: Additional Funding	★	★	★	★	★		★	
<b>Early Detection and Screening Goal 5</b> Lung	Strategy 1: Provider Education	★	★	★	★				
	Strategy 2: Promote Screening	★	★	★	★	★		★	★
	Strategy 3: Additional Resources	★	★	★	★	★		★	★
<b>Survivorship Goal 6</b> Resources	Strategy 1: Needs Assessment	★	★		★	★			
	Strategy 2: Identify Strategies	★	★		★	★		★	★
	Strategy 3: Implement Strategies	★	★		★	★		★	★
	Strategy 4: Resource Repository					★			
	Strategy 5: Promote Resources	★	★	★	★	★		★	★
<b>Survivorship Goal 7</b> Care Providers	Strategy 1: Cancer Care Collaborative	★	★		★	★		★	
	Strategy 2: Provider Education	★	★					★	
<b>Childhood Cancer Goal 8</b> Resources	Strategy 1: Needs Assessment	★				★	★		
	Strategy 2: Address Needs	★		★	★	★	★		
	Strategy 3: Resource Repository	★				★	★		
	Strategy 4: Promote Resources	★	★	★	★	★	★	★	★
<b>Childhood Cancer Goal 9</b> Care Providers	Strategy 1: Nurse Training	★	★					★	
	Strategy 2: PCP Training	★	★					★	
	Strategy 3: Social Worker Training	★	★					★	
<b>Coalition Infrastructure Goal 10</b> Partnerships	Strategy 1: Gaps	★	★	★	★	★	★	★	★
	Strategy 2: Partners	★	★	★	★	★	★	★	★
	Strategy 3: Workgroups	★	★	★	★	★	★	★	★
	Strategy 4: Annual Meetings	★	★	★	★	★	★	★	★
<b>Coalition Infrastructure Goal 11</b> Stability	Strategy 1: 501(c)(3)	★	★	★	★	★	★	★	★
	Strategy 2: Funding	★	★	★	★	★	★	★	★
	Strategy 3: Board	★	★	★	★	★	★	★	★

# WYOMING CANCER PLAN

2021-2025

## Goals at a Glance



### Prevention

Goal 1: Decrease tobacco and e-cigarette use

Goal 2: Increase HPV vaccination completion among adolescents

Goal 3: Increase healthy eating and physical activity behaviors



### Early Detection & Screening

Goal 4: Increase screening rates for breast, cervical, and colorectal cancers

Goal 5: Decrease proportion of lung cancer diagnoses at late stage by increasing screening



### Survivorship

Goal 6: Improve resources for cancer survivors

Goal 7: Increase training and knowledge for cancer care providers and primary care providers related to cancer treatment and long-term care needs



### Childhood Cancer

Goal 8: Expand resources for patients and families, including palliative care and end of life care

Goal 9: Provide didactic and hands-on training opportunities for healthcare providers related to childhood cancer and post-treatment survivorship needs



### Coalition Infrastructure

Goal 10: Expand partnerships and stakeholder buy-in and participation

Goal 11: Improve financial stability of coalition



## Cigarette smoking

is the **#1** risk factor for lung cancer<sup>1</sup>

**29%** of Wyoming residents are **Obese**<sup>4</sup>

# Prevention

While there are many cancer prevention activities that research has shown to be effective, the Wyoming Cancer Coalition has chosen to focus on three specific areas. These priority areas were selected based on the needs and potential impact demonstrated from data as well as input from the coalition on feasibility of implementing the strategies. The Plan addresses tobacco use, HPV vaccination, and healthy eating and active living.

## Tobacco Use

Cigarette smoking is the number one risk factor for lung cancer.<sup>1</sup> Quitting at any age can lower a person's cancer risk. Secondhand smoke is also a concern for people who do not smoke. This is why it is important to not only support individuals in their quit attempts but also protect everyone's health with tobacco-free policies.

Use of e-cigarettes has increased in popularity, especially among youth. While the long-term effects of e-cigarette use are still being studied, harmful chemicals in these products have been shown to damage lung tissue.<sup>2</sup> Nicotine is highly addictive, so while we've seen decades of downward trends in youth cigarette smoking, e-cigarettes may create a new generation of young people addicted to this harmful substance.

## Healthy Eating & Active Living

Obesity is associated with an increased risk of more than 10 types of cancer.<sup>3</sup> Healthy eating and active living can prevent obesity and therefore decrease an individual's risk for cancer. Promoting healthy behaviors is important, but these messages must also be paired with an environment and policies that support and promote healthy behaviors. In 2018, 29% of Wyoming residents were obese.<sup>4</sup> This demonstrates that a large proportion of the population can be positively impacted by interventions related to healthy eating and active living.

1 The Centers for Disease Control and Prevention. (2020). *What are the risk factors for lung cancer?*

2 American Lung Association. (2020). *The impact of e-cigarettes on the lung.*

3 National Cancer Institute. (2017). *Obesity and Cancer.*

4 Wyoming Behavioral Risk Factor Surveillance System. (2018).



# Prevention

## HPV Vaccination

The human papillomavirus (HPV) is associated with six types of cancer, including cervical, oropharyngeal, anal, vulva, vagina and penile. HPV vaccination can prevent more than 90% of cancers caused by HPV.<sup>1</sup>

The Advisory Committee on Immunization Practices (ACIP) recommends routine HPV vaccination at age 11 or 12 years. Current guidelines recommend starting vaccination as early as age 9 and completing the 2-dose series prior to age 15.<sup>2</sup>

### Kelly's Story

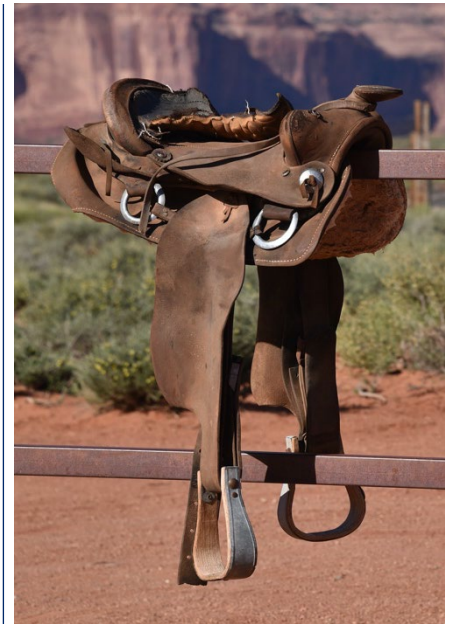
Cancer Survivor and HPV Vaccine Advocate  
Rock Springs, WY

*Before cancer, I was very active and healthy. I went to my annual check-up in April of 2016. I got a call back saying my cholesterol was high, and I had an irregular pap smear. However, I just remember the cholesterol being high. Around January of 2017, I started having vaginal bleeding and discomfort and went back to the doctor in February. That is when I was diagnosed with cervical cancer. After the procedure, I should have been back to myself in 90 days. After experiencing complications, I was informed that they found cancer cells on the lining of my lymphoid and decided to move forward with eight weeks of radiation and eight rounds of chemotherapy. This was a long and exhausting journey.*



*I made a commitment to myself - after I completed my cancer journey, I would not stop educating on HPV, the vaccine, and survivorship. I was chosen to have cancer so that I could share my journey and hopefully make a difference.*

*We have a vaccine to protect ourselves and our children from cancer!*



HPV  
vaccination  
can prevent  
more than 90% of  
cancers caused by HPV<sup>1</sup>

HPV-related cancer  
cases (2014 to 2018):<sup>3</sup>

108 cervical  
113 throat

1 The Centers for Disease Control and Prevention. (2020). Cancers caused by HPV are preventable.  
2 Meites E, Kempe A, Markowitz LE. Use of a 2-Dose Schedule for Human Papillomavirus Vaccination — Updated Recommendations of the Advisory Committee on Immunization Practices. MMWR Morb Mortal Wkly Rep 2016;65:1405–1408. DOI: <http://dx.doi.org/10.15585/mmwr.mm6549a5>  
3 Wyoming Cancer Surveillance Program. (2014-2018).



## Adult cigarette smoking

Baseline: 18.4%

Goal: 16.4%

Source: BRFSS, 2019

## Youth vaping in the past 30 days

Baseline: 23.1%

Goal: 17%

Source: PNA, 2018

# Prevention

## Tobacco use

**Goal 1:** Decrease tobacco and e-cigarette use

### Strategy 1: Promote Cessation

Promote the QuitLine and local cessation programs through Wyoming Cancer Coalition members and their channels

### Strategy 2: Assess & Refer

Support healthcare provider assessment of patient tobacco use and referral to cessation services

### Strategy 3: School Policies

Implement comprehensive tobacco-free school policies that include e-cigarettes

### Strategy 4: Community Policies

Implement tobacco-free policies within communities and businesses

### Target populations

- Adults with lower income
- Adults with less educational attainment
- 6th, 7th and 8th grade students to prevent initiation
- High school students to prevent initiation and encourage cessation

# Prevention

## HPV Vaccination

**Goal 2:** Increase HPV vaccination completion among adolescents

### Strategy 1: Messaging

Develop and disseminate messaging to parents and adolescents that HPV vaccination is cancer prevention for both girls and boys and includes head, neck, and other cancers, not just cervical

### Strategy 2: Quality Improvement

Healthcare providers, including dentists, recommend HPV vaccination and implement quality improvement activities to increase vaccination rates, including client reminders, provider reminders, and standing orders

### Strategy 3: Schools

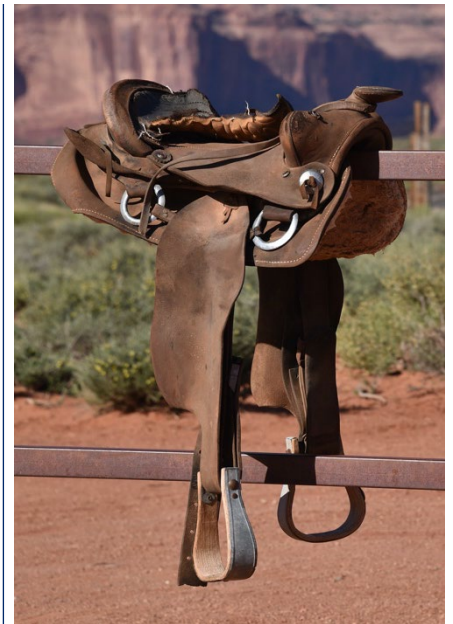
Administer HPV vaccines in school setting in partnership with state and local public health departments

### Target populations

- Age 9 to 14 with focus on ages 11 to 12
- Low income and underserved populations (Medicaid)
- Individuals who have an initial dose and just need a second dose

	11-12 Years	13-15 Years
1 dose	27%	49%
2 doses	7%	31%

Source: Wyoming Department of Health · Public Health Division, Immunization Unit (2019)



HPV vaccination completion (2 doses), 13-15 years old

Baseline: 31%

Goal: 45%

Source: Wyoming Department of Health, Immunization Unit, 2019



Meet physical activity guidelines of 150 min per week moderate or 75 min per week vigorous activity

Baseline: 50.2%

Goal: 54%

Source: BRFSS, 2019

Eat one or more fruit per day

Baseline: 57.8%

Goal: 64%

Source: BRFSS, 2019

# Prevention

## Healthy Behaviors

**Goal 3:** Increase healthy eating and physical activity behaviors

### Strategy 1: Lifestyle Change Programs

Promote evidence-based lifestyle change programs, including the National Diabetes Prevention Program and Healthy U

### Strategy 2: Worksites

Implement policies, environmental changes, and messaging that support healthy behaviors at worksites

### Strategy 3: Schools

Implement healthy food and beverage policies at schools

## Target populations

- Adults with educational attainment less than college graduate
- Adult males (fruit consumption)
- Age groups younger than 65 years (fruit consumption)

# Early Detection & Screening

Cancer screening often occurs before symptoms are present and can lead to the early detection of cancer. Early detection can lead to better outcomes. Screening can even result in cancer prevention by removing abnormal cells before they become cancerous. For example, removing a colon polyp during a colonoscopy can prevent its growth to cancer. The Plan focuses on cancers with screening tests that are available and recommended by the U.S. Preventive Services Task Force - breast, cervical, colorectal, and lung.

Even though cancer screening can prevent some cancers and considerably improve outcomes for cancers that are caught early, Wyoming's cancer screening rates are among the worst in the nation. The Plan outlines strategies to increase cancer screening rates and improve early detection.

Breast Screening	Cervical Screening	Colorectal Screening
Ranks 50th in the nation	Ranks 40th in the nation	Ranks 51st in the nation
68%	68%	57%

Source: Wyoming Behavioral Risk Factor Surveillance System, 2018

## Ana's Story

Wyoming Cancer Screening Program Participant  
Gillette, WY

*In 2016, a couple of months before my 16th birthday, my mother was diagnosed with metastatic breast cancer. At the age of 17, I found a mass in my left breast. Fear kept me from getting it checked out.*

*In March of 2020, two days before my 20th birthday, my mother passed away at the age of 56. I did not want to wait until it was too late for me, the way she did. I did not have any insurance to pay for a biopsy. I applied for the Wyoming Cancer Program with the help of the Wyoming Cancer Resources Services (WCRS) Coordinator. I was able to get a biopsy and the mass removed free of cost. If I had not gotten the mass removed when I did, it would have eventually turned cancerous.*

*Because of the WCRS Coordinator and the Wyoming Cancer Program, I was able to get the care I needed without going into debt. This allowed me to continue my life with my husband worry-free, and I am forever grateful.*





# Early Detection & Screening

## Breast, Cervical, and Colorectal Cancer

**Goal 4:** Increase screening rates for breast, cervical, and colorectal cancers

### Strategy 1: Quality Improvement

Implement health system quality improvement activities to increase providers' understanding of baseline screening rates and to increase screening rates, including provider assessment and feedback, client reminders, and provider reminder and recall systems

### Strategy 2: Promote Screening

Develop and disseminate marketing and communication about the importance of screening with consistent messaging across Wyoming Cancer Coalition partners and their networks

### Strategy 3: Financial Support

Continue to offer and promote low cost and no cost screening options to individuals and healthcare providers

### Strategy 4: Additional Funding

Explore opportunities to meet needs for additional funding to support screening efforts e.g., CDC's Colorectal Cancer Screening Program

Breast Cancer  
Screening -  
Mammography every  
two years age 50-74

Baseline: 68.1%

Goal: **73%**

Source: BRFSS, 2018

Cervical Cancer  
Screening -  
Pap in the past three  
years

Baseline: 68.6%

Goal: **74%**

Source: BRFSS, 2018

Colorectal Cancer  
Screening -  
Met guidelines

Baseline: 56.9%

Goal: **64%**

Source: BRFSS, 2018

### Target populations

Breast Cancer Screening

- Income less than \$15k

Cervical Cancer Screening

- Women age 21-65
- High school or some college educational attainment

Colorectal Cancer Screening

- Age 50-59
- Less than high school, high school or some college educational attainment
- Income less than \$15k

# Early Detection & Screening

## Lung Cancer

**Goal 5:** Decrease proportion of lung cancer diagnoses at late stage by increasing screening

### Strategy 1: Provider Education

Develop and disseminate education about screening guidelines and survival rates to healthcare providers

### Strategy 2: Promote Screening

Develop and disseminate education to the public about screening in tandem with tobacco cessation messaging

### Strategy 3: Additional Resources

Identify additional strategies and resources needed to support lung cancer screening

### Target populations

- Current smokers or those who have quit within the past 15 years, AND
- Have a 30 pack-year\* history or more, AND
- Age 55 to 80

\*A pack-year is smoking an average of one pack of cigarettes per day for one year. For example, a person could have a 30 pack-year history by smoking one pack a day for 30 years or two packs a day for 15 years.



## Lung Cancer Incidence, Late Stage

Baseline: 65%

Goal: 60%

Source: Wyoming Cancer Surveillance Program, 2018

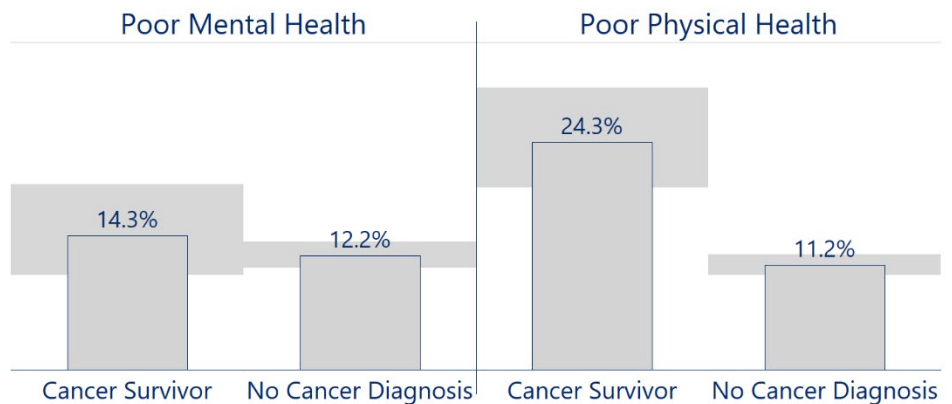


# Survivorship

There were an estimated 40,200 cancer survivors living in Wyoming as of September 2020.<sup>1</sup> Cancer survivorship starts the day that someone is diagnosed with cancer and continues throughout a person’s life. Cancer survivors often experience worse mental and physical health than individuals who have never been diagnosed with cancer. The strategies in the Plan aim to identify the needs of cancer survivors and develop the necessary supports to address those needs.

## Health Status of Cancer Survivors Compared to People Without a Cancer Diagnosis

Poor mental and physical health are defined by adults who reported that their mental and/or physical health was poor for at least 14 of the past 30 days. Gray shaded areas behind the bars represent 95% confidence intervals.



Source: Wyoming Behavioral Risk Factor Surveillance System, 2018

An estimated  
**40,200**  
cancer survivors were  
living in Wyoming as of  
2020<sup>1</sup>

Cancer survivors report  
experiencing  
**poor physical  
health**

more often than those  
who have never been  
told they have cancer<sup>2</sup>

**Julianne’s Story**  
Oncology Social Worker  
Fort Collins, CO

*In addition to facing a cancer diagnosis, some patients face multiple barriers to care. For Wyoming residents who need to travel to Colorado for cancer treatment, one of those barriers can be the cost of travel. Gas cards provided by the Wyoming Cancer Program have been a great help. Many patients are surprised that this resource is available.*

*With an email or call to the Wyoming Cancer Resource Services Coordinator, we have received help on behalf of our Wyoming patients. This program allows us to respond to this need quickly and support people who are really struggling. Our patients are grateful.*

<sup>1</sup> Wyoming Cancer Surveillance Program. (2020).

<sup>2</sup> Wyoming Behavioral Risk Factor Surveillance System. (2018).



# Survivorship

## Resources

**Goal 6:** Improve resources for cancer survivors

### Strategy 1: Needs Assessment

Conduct needs assessment among cancer survivors and care providers to identify needs that the coalition can address both during treatment and after treatment

### Strategy 2: Address Needs

Identify strategies and resources to address needs

### Strategy 3: Implement Strategies

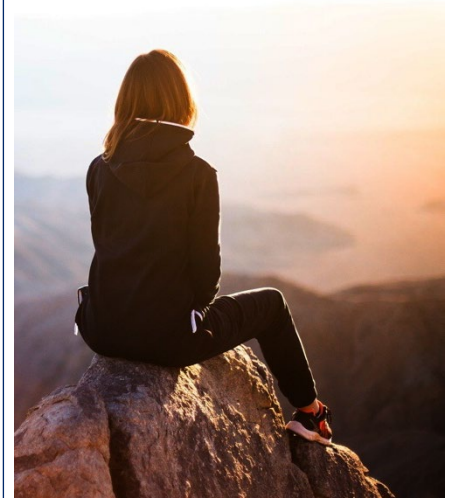
Implement activities to address needs

### Strategy 4: Resource Repository

Maintain updated centralized statewide resource repository that all Wyoming Cancer Coalition members inform and has the capability for anyone to submit a new resource to share

### Strategy 5: Promote Resources

Promote existing resources and connect individuals to them



Poor physical health in the past 14 days among those ever told had cancer diagnosis

Baseline: 24.3%

Goal: 20%

Source: BRFS, 2018

Number of resources in repository, by category

Baseline: TBD

Goal: TBD

Source: Wyoming Foundation for Cancer Care

Note: Categories and numbers of resources at baseline for each category will be determined during the needs assessment

# Survivorship



Number of cancer care  
provider collaborative  
sessions

Baseline: 0 per year

Goal: 2 per year

Source: Wyoming Cancer Coalition -  
Survivorship Workgroup

## Care Providers

**Goal 7:** Increase training and knowledge for cancer care providers and primary care providers related to cancer treatment and long-term care needs

### Strategy 1: Cancer Care Collaborative

Develop and maintain a Collaborative for cancer care centers and care providers for the purpose of sharing ideas and resources

### Strategy 2: Provider Education

Develop and disseminate key messaging to primary care providers on the transition from cancer care to primary care and long-term care needs of cancer survivors

# Childhood Cancer

While childhood cancer is rare, it is the 8th leading cause of death for children in Wyoming. The most common childhood cancers include brain cancers and leukemia. On average, 26 children in Wyoming are diagnosed with cancer each year.<sup>1</sup> While survival rates are typically high, it is a devastating disease for children as well as their families.

Currently, there are no childhood cancer treatment facilities in the state of Wyoming. This adds an additional barrier and burden to families. Therefore, the strategies in this plan are focused on supporting children and families going through treatment as well as providing training and education to care providers to support care when children return back home.

## Henry's Story Childhood Cancer Hillsdale, WY

*Henry's parents took him to his pediatrician after being concerned about him staying home from school for two days. After doing a blood work-up, Henry was diagnosed with acute lymphoblastic leukemia (ALL) in October of 2018 at age 6. He needed to get to Denver Children's Hospital immediately.*

*Since that time, Henry has endured one helicopter transport and three ambulance transports to Denver Children's Hospital, 53 clinic visits for treatments and has spent 118 days inpatient at Denver Children's Hospital. On August 16th, 2019, Henry started long-term maintenance, which will last until February 20, 2022. This is not an easy road to travel, but Henry has been able to brave this journey with a smile on his face and a positive attitude.*

*Henry turned nine years old in January 2021.*



On average,  
**26 children**  
are diagnosed with  
cancer each year<sup>1</sup>

Currently, there are  
**no childhood  
cancer treatment  
facilities**  
in the state of Wyoming.

<sup>1</sup> Wyoming Cancer Surveillance Program. (2018).



# Childhood Cancer

## Resources

**Goal 8:** Expand resources for patients and families, including palliative care and end of life care

### Strategy 1: Needs Assessment

Conduct needs assessment among families with children who have been through cancer treatment to identify needs both during treatment and after treatment

### Strategy 2: Address Needs

Identify new partners and implement strategies and resources to address needs

### Strategy 3: Resource Repository

Maintain resource repository and continue to connect families to resources

### Strategy 4: Promote Resources

Develop and implement marketing and communication plan to promote resources e.g., Stupid Cancer Conference, Webpage, Newsletter

Number of resources available to meet the needs identified, by category

Baseline: TBD

Goal: TBD

Source: Wyoming Cancer Coalition - Childhood Cancer Workgroup

Note: Needs and numbers of resources for each need at baseline will be determined during the needs assessment

# Childhood Cancer

## Care Providers

**Goal 9:** Provide didactic and hands-on training opportunities for healthcare providers related to childhood cancer and post-treatment survivorship needs

### Strategy 1: Nurse Training

Provide training opportunities for nurses

### Strategy 2: Primary Care Provider Training

Provide training opportunities for primary care providers

### Strategy 3: Social Worker Training

Provide training opportunities for social workers



Number of training sessions

Baseline: 3 per year

Goal: 3 per year

Source: Wyoming Cancer Coalition -  
Childhood Cancer Workgroup



## Active Coalition Members

Baseline: 42

Goal: 52

Source: Wyoming Cancer Coalition – Steering Committee

Note: Active coalition member is defined as 50% attendance at meetings and participation in a workgroup

# Coalition Infrastructure

## Partnerships

**Goal 10:** Expand partnerships and stakeholder buy-in and participation in the Wyoming Cancer Coalition

### Strategy 1: Gaps

Identify gaps in Wyoming Cancer Coalition representation

### Strategy 2: Partners

Recruit new partners to attend annual meeting and participate in workgroups

### Strategy 3: Workgroups

Develop and sustain workgroup structure to include regular meetings that support implementation of the Plan as well as information sharing

### Strategy 4: Annual Meetings

Host annual meetings with an agenda to include Plan goals and metric progress along with partner updates and success sharing

# Coalition Infrastructure

## Stability

**Goal 11:** Improve financial stability of the Wyoming Cancer Coalition

### Strategy 1: 501(c)(3)

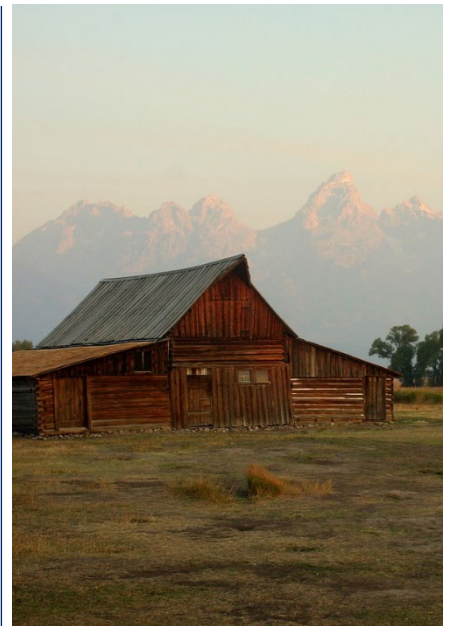
Review requirements for becoming a 501(c)(3) organization

### Strategy 2: Funding

Identify funding sources for the coalition

### Strategy 3: Board

Identify board of directors



Decision to become  
501(c)(3)

Baseline: Unknown

Goal: Yes/No

Source: Wyoming Cancer Coalition –  
Steering Committee









[wyomingcancercoalition.org](http://wyomingcancercoalition.org)

# WYOMING CANCER PLAN 2021-2025