THE BURDEN OF CANCER IN MONTANA

Among Montana residents, cancer is the second-leading cause of death, after diseases of the circulatory system, such as heart disease and stroke. Each year, approximately 5,600 Montanans are newly diagnosed with cancer, and an average of 1,900 Montanans die from the disease.\(^1\)\(^2\) Furthermore, it is estimated that 53,000 Montana residents are cancer survivors.\(^3\) Montana’s cancer burden is comparable to the United States as a whole for all cancer sites combined and for many individual sites. However, more can be done to reduce the burden of cancer in Montana.

Four kinds of cancer—prostate, breast, lung, and colorectal—account for 50% of all incident cancers and 48% of all cancer deaths in Montana.\(^1\)\(^2\) No other kind of cancer accounts for more than 5% of cases, and the great majority account for 1% of cases or less.\(^1\)

Tobacco prevention or cessation is the single greatest cancer prevention measure that can be implemented.

- More than 90% of lung cancer and bronchus cancer cases are attributed to cigarette smoking and exposure to secondhand smoke.\(^4\) These cancers, which account for 13% of all newly diagnosed cases in Montana, are almost entirely preventable.\(^1\)
- One third of all cancer deaths in Montana are attributable to tobacco use.\(^5\)
- Cigarette smoking also increases the risk of cancers of the sinuses, mouth, throat, liver, pancreas, stomach, kidneys, bladder, colon, rectum, and cervix.\(^6\)
Screening for breast, cervical, colorectal, and lung cancers has proven effective and can save lives. Screening can find cancer at an early stage, when the cancer is most treatable; screening can also find precancerous lesions so they can be treated before they progress.

- Colorectal cancer accounts for 9% of all cancer cases and can be screened by either fecal occult blood testing (FOBT/FIT) or endoscopic screening.¹
- Approximately 60% of colorectal cancer could be prevented by endoscopic screening that can find and remove polyps and other precancerous growths.⁷
- Invasive cervical cancer has been almost eliminated by the widespread use of Papnicolaou (Pap) screening.
- Mammography is a minimally invasive procedure that can discover a large portion of breast tumors at an early stage when they are most treatable. In Montana, more than 95% of women whose breast cancer is diagnosed at the local stage survive for five more years after diagnosis. In comparison, less than 25% of women whose cancer is diagnosed at a later stage survive five years following diagnosis.¹

<table>
<thead>
<tr>
<th>Rank</th>
<th>Site</th>
<th>Average Number Per Year</th>
<th>Percent</th>
<th>Rank</th>
<th>Site</th>
<th>Average Number Per Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prostate</td>
<td>817</td>
<td>14.5%</td>
<td>1</td>
<td>Lung</td>
<td>502</td>
<td>25.8%</td>
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<tr>
<td>2</td>
<td>Female Breast</td>
<td>766</td>
<td>13.6%</td>
<td>2</td>
<td>Colorectal</td>
<td>172</td>
<td>8.8%</td>
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<tr>
<td>3</td>
<td>Lung</td>
<td>720</td>
<td>12.8%</td>
<td>3</td>
<td>Female Breast</td>
<td>137</td>
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</tr>
<tr>
<td>4</td>
<td>Colorectal</td>
<td>490</td>
<td>8.7%</td>
<td>4</td>
<td>Pancreas</td>
<td>119</td>
<td>6.1%</td>
</tr>
<tr>
<td>5</td>
<td>Melanoma</td>
<td>288</td>
<td>5.1%</td>
<td>5</td>
<td>Prostate</td>
<td>117</td>
<td>6.0%</td>
</tr>
<tr>
<td>6</td>
<td>Bladder</td>
<td>280</td>
<td>5.0%</td>
<td>6</td>
<td>Leukemia</td>
<td>77</td>
<td>4.0%</td>
</tr>
<tr>
<td>7</td>
<td>Non-Hodgkin’s Lymphoma</td>
<td>234</td>
<td>4.2%</td>
<td>7</td>
<td>Non-Hodgkin Lymphoma</td>
<td>69</td>
<td>3.5%</td>
</tr>
<tr>
<td>8</td>
<td>Leukemia</td>
<td>186</td>
<td>3.3%</td>
<td>8</td>
<td>Bladder</td>
<td>61</td>
<td>3.1%</td>
</tr>
<tr>
<td>9</td>
<td>Kidney</td>
<td>176</td>
<td>3.1%</td>
<td>9</td>
<td>Liver</td>
<td>59</td>
<td>3.1%</td>
</tr>
<tr>
<td>10</td>
<td>Uterus</td>
<td>166</td>
<td>2.9%</td>
<td>10</td>
<td>Ovary</td>
<td>57</td>
<td>2.9%</td>
</tr>
<tr>
<td>11</td>
<td>Thyroid</td>
<td>156</td>
<td>2.8%</td>
<td>11</td>
<td>Brain &amp; other CNS</td>
<td>53</td>
<td>2.7%</td>
</tr>
<tr>
<td>12</td>
<td>Pancreas</td>
<td>138</td>
<td>2.5%</td>
<td>12</td>
<td>Esophagus</td>
<td>53</td>
<td>2.7%</td>
</tr>
<tr>
<td>13</td>
<td>Brain &amp; Other CNS</td>
<td>83</td>
<td>1.5%</td>
<td>13</td>
<td>Myeloma</td>
<td>43</td>
<td>2.2%</td>
</tr>
<tr>
<td>14</td>
<td>Myeloma</td>
<td>77</td>
<td>1.4%</td>
<td>14</td>
<td>Kidney</td>
<td>41</td>
<td>2.1%</td>
</tr>
<tr>
<td>15</td>
<td>Ovary</td>
<td>73</td>
<td>1.3%</td>
<td>15</td>
<td>Melanoma</td>
<td>36</td>
<td>1.9%</td>
</tr>
<tr>
<td></td>
<td>Childhood Cancers</td>
<td></td>
<td></td>
<td></td>
<td>Childhood Cancers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ages 0-19 years)</td>
<td>42</td>
<td>0.7%</td>
<td></td>
<td>(ages 0-19 years)</td>
<td>6</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>All New Cancers</td>
<td>5,622</td>
<td>100.0%</td>
<td></td>
<td>All Cancer-Related Deaths</td>
<td>1,945</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

DATA SOURCE: Montana Central Tumor Registry, 2009-2013; Montana Death Records, 2009-2013

PURPOSE

The Montana Comprehensive Cancer Control Plan (CCC Plan) is an updated framework for action created by partners of the Montana Cancer Coalition (MTCC) to address the substantial burden of cancer in Montana. The five-year plan delivers to planners, providers, policy-makers, the public health community, and other stakeholders a common set of objectives and strategies designed to keep partners moving in the same direction. This action plan is consistent with content from the Centers for Disease Control and Prevention (CDC), the Department of Health and Human Services, Healthy People 2020, the Public Health and Safety Division Strategic Plan, Montana State Health Improvement Plan as well as the Companion Cancer Control Plan developed by the Montana American Indian Women’s Health Coalition (MAIWHC).

Key objectives and strategies are identified across the continuum of cancer control, ranging from prevention, early detection, treatment and research, quality of life and survivorship, and pediatric cancer. To the extent possible, updated plan strategies draw from existing, evidence-based guidelines and best practices, and they are linked to specific and measurable objectives.

WHAT IS THE MONTANA CANCER COALITION?

The Montana Cancer Coalition (MTCC) strives to ensure better quality of life and enhance the odds of survivorship through prevention, early detection, and state-of-the-art cancer care.
THE MISSION OF THE MTCC IS:
1. To reduce cancer incidence, morbidity, and mortality through a collaborative partnership of private and public individuals and organizations.
2. To develop, implement, promote, and advocate for a statewide, coordinated, integrated approach to cancer control for all Montanans.
3. To ensure quality of life through prevention, early detection, treatment, research, rehabilitation, and palliation.

IMPLEMENTATION OF THE MONTANA COMPREHENSIVE CANCER CONTROL PLAN

MTCC members and statewide partners work to implement the CCC Plan through coordinated and collaborative efforts. Montanans have many different roles as fathers and mothers, sisters and brothers, teachers, friends, mentors, advocates, and more. The CCC Plan enables all individuals and organizations to get involved in cancer control by implementing strategies and working together to reduce the burden of cancer.

HOW TO GET INVOLVED

The Montana Comprehensive Cancer Control Plan is a living document representing Montana’s determination to change the state of cancer. The CCC Plan describes priorities for cancer control activities that encompass the full cancer continuum, from prevention and early detection to quality of life and survivorship or end-of-life. The following are ways to get involved in cancer control and activities that support the CCC Plan:

IF YOU ARE A MONTANA RESIDENT:
• Avoid tobacco use.
• Engage in at least 30 minutes of physical activity daily.
• Choose nutritious foods to achieve and maintain a healthy weight.
• Get recommended cancer screenings and encourage family members and friends to do the same.
• Become an active member of the MTCC.
• Participate and volunteer in cancer control activities in your community.
• Get recommended vaccinations such as Hepatitis B and Human Papilloma Virus.

**IF YOU ARE A CANCER SURVIVOR:**
• Share your experience to educate the public about the needs of survivors and the benefit of early screening.
• Mentor survivors and co-survivors to empower them to actively participate in their healthcare decisions.
• Join a support group.
• Encourage employers and schools to support cancer survivors and their needs as they transition through their cancer diagnoses.
• Join an advocacy group or organization, such as the MTCC, to improve survivor experiences and quality of life.

**IF YOU ARE AN EDUCATOR:**
• Promote healthy lifestyle behaviors to students, families, and staff.
• Provide information on the return-to-school transition process for childhood cancer survivors, families, and school staff.
• Encourage staff to get recommended cancer screenings.
• Provide healthy food and sun protective options to students and staff.
• Organize student advocacy groups to support cancer control activities.
• Learn how to work with kids and families when cancer touches their lives.
• Encourage cancer-preventing vaccines such as Human Papilloma Virus and Hepatitis B.

**IF YOU ARE A HEALTHCARE PROVIDER:**
• Ask all patients whether they use tobacco and other nicotine-delivery products, and provide cessation interventions to patients who do.
• Screen patients for obesity, and support those working to achieve or maintain a healthy weight.
• Recommend evidence-based cancer screenings to every eligible patient at every opportunity.
• Provide cancer patients with a comprehensive survivorship care plan.
• Pursue continued education to understand survivor needs and available best practices.
• Talk with patients about the benefits of palliative care and hospice.
• Work with the MTCC to include cancer control messages on display boards and advertising spaces.
• Recommend evidence-based vaccines to appropriate populations.

**IF YOU ARE AN EMPLOYER:**
• Provide access to tobacco-use cessation programs for employees.
• Implement a work site wellness program.
• Encourage employees to be physically active and to select nutritious foods.
• Provide sun-protective gear or products for employees working outside.
• Provide full coverage for recommended cancer screenings and time off for employees to get screened.
• Provide information on return-to-work transition issues to survivors and their co-workers, and implement systems to allow employees to continue their work during treatment.
• Keep work sites smokefree.

**IF YOU ARE A POLICY MAKER:**
• Support policies to improve funding for cancer survivorship services, screening, treatment, research, and surveillance.
• Support policies that assist and encourage healthy lifestyle choices.
• Support policies that improve access to healthcare.

**JOINING THE MONTANA CANCER COALITION (MTCC)**

MTCC membership is open to any person or organization interested in reducing the burden of cancer in Montana. Please visit our website at
HOW THE MONTANA COMPREHENSIVE CANCER CONTROL PLAN WAS DEVELOPED AND UPDATED

Members from the Montana Cancer Coalition Steering Committee met in 2015 to review progress on objectives and strategies in the Montana Comprehensive Cancer Control Plan 2011-2016 and began work on the development of an updated five-year CCC Plan for 2016-2021. Early in the process, a survey was developed and sent around the state to gather input regarding areas of improvement in the cancer continuum. This information was compiled and presented to the MTCC Steering Committee. Recommended updates were sent to additional field experts for review and approval including but not limited to: physicians and accompanying medical professionals, representatives from the University of Montana Rural Institute for Inclusive Communities Disability and Health Program, American Indian representatives, and representatives from the State of Montana Department of Public Health and Human Services. Objectives that could be measured and evidence based strategies were chosen for inclusion in the updated CCC Plan. Strategies addressing cancer-related health disparities are distributed throughout the document and, where appropriate, include strategies particular to priority populations based on disease burden.

INTEGRATION ACROSS CHRONIC DISEASE PROGRAM AREAS

Many of the leading causes of chronic disease in the United States share common risk factors, such as obesity and tobacco use and exposure.

The Montana Comprehensive Cancer Control Plan incorporates common objectives, strategies, and measures from plans developed by statewide partners working on obesity and tobacco control. As state chronic disease prevention programs and partnerships implement an increasing number of disease-focused activities, opportunities abound for cross-program integration through commonalities in venue (e.g., work sites); approaches (e.g., the use and/or training of community health workers); audiences (e.g., particular communities); and partners (e.g., health plans). Identifying and levering these opportunities should enable MTCC to more effectively and efficiently reduce the burden of chronic diseases in Montana and to help people live longer, healthier lives.
to encourage public health efforts in Montana to move toward a policy, systems, and environmental change approach that will provide a foundation for population-wide change. Long-lasting and sustainable change to tobacco use, physical activity, and nutrition requires systems change driven by new and improved policies.

Policy, systems and environmental changes make it easier for individuals to adopt healthier choices and get the treatment, survivorship, and end-of-life care they need, provided in an accessible way.

Policy interventions may be laws, resolutions, mandates, regulations, rules, or funding sources. Examples are laws and regulations that restrict smoking in public buildings and organizational rules that promote healthy food choices in a work site. Policy change refers not only to the enactment of new policies but also to a change in or enforcement of existing policies.

Systems interventions are changes that impact all elements of an organization, institution, or system; they may include a policy or environmental change strategy. Two examples include a school district providing healthy lunch menu options in all school cafeterias in the district and a health plan adopting a health reminder intervention system-wide.

Environmental interventions involve physical or material changes to the economic, social, or physical environment. Examples are the incorporation of sidewalks, walking paths and recreation areas into community development design or the availability of healthy snacks and beverages in all high school vending machines. There is growing recognition that the built environment—the physical structures and infrastructure of communities—plays a significant role in shaping health. The designated use, layout, and design of a community’s physical structures, including its housing, businesses, transportation systems, and recreational resources, affect patterns of living (behaviors) that, in turn, influence health.

**EVALUATION**

Measuring the outcomes of specific initiatives and tracking progress in meeting targets in the Montana Comprehensive Cancer Control Plan is essential to achieving the goals of the MTCC. Evaluation extends to assessing success in engaging partner organizations and in the partner organizations’ satisfaction with MTCC’s structure and activities. A Montana Cancer Control Programs staff oversees these components of evaluation in close collaboration with the MTCC Steering Committee.

Selection of targets is based on considerations such as the existing baseline and trends, goals that other states have proved achievable, and the desire to attain health equity. Each year, the MTCC publishes a report that tracks progress in meeting plan objectives.

MTCC objectives related to cancer occurrence rely on data from the Montana Central Tumor Registry (MCTR), which is part of the Montana Department of Public Health and Human Services.
Because of the MCTR’s work in collecting information on stage of diagnosis, treatment, and race, it is possible to compare cancer rates and trends in specific kinds of cancers in Montana with those in the nation and to see how those rates and trends vary by region, age, gender, and race.

Evaluation analysis will be conducted in partnership between the Montana Cancer Control Programs and the MTCC. Specific areas of evaluation include:

- MTCC Partnerships
- Montana CCC Plan
- Montana Cancer Control Programs Outcomes

Evaluation results are disseminated by the MCCP to the CDC, MTCC Steering Committee, and at MTCC meetings.
RURAL MONTANA

Montana, a rural, frontier state, is the fourth largest state in total square miles (145,545 square miles). The National Center for Frontier Communities ranks Montana as the 3rd most frontier state in the nation. Of the 56 counties in the state, 45 are considered frontier based on population density. Montana has one urban county (Yellowstone) and 10 rural counties; the remainder are frontier counties. The rural nature of Montana is clearly demonstrated by the fact that 440,939 citizens (45%) live outside of incorporated cities and towns, with 735,993 (76%) of the population living in areas classified as rural and frontier. According to America’s Health Rankings, high geographic disparity within the state remains a significant challenge to the overall health of Montanans due to limited access to care and screening.
CANCER AMONG AMERICAN INDIANS IN MONTANA

Cancer presents a significant burden to American Indians throughout Montana. From 2009-2013, cancer was the second leading cause of death among Montana American Indians. On average, there are 262 newly diagnosed cancers and 80 cancer deaths each year among Montana American Indians.

Overall, new cancer cases occur at a statistically significantly greater rate among Montana American Indians compared to Montana Whites and U.S. American Indians/Alaska Natives. The overall cancer-related death rate was significantly greater among Montana American Indians compared to Montana Whites but statistically the same as U.S. American Indians/Alaska Natives.

Four types of cancer accounted for 54% of all cancers diagnosed among Montana American Indians; these cancers were lung, breast, colorectal, and prostate cancers. Lung cancer was also the most deadly. One in four (27%) cancer deaths were lung cancer deaths.

The high prevalence of commercial tobacco use and obesity along with limited access to preventive healthcare and treatment contribute greatly to the cancer burden among Montana American Indians. In 2014 and 2015 the percentage of Montana American Indians that were current smokers was high compared to White Montanans; 43% of adults and 20% of high school students were current commercial tobacco users (Figure 5). Additionally 42% of adults and 16% of high school students were obese.

Participation in breast and cervical cancer screenings was 69% and 80% in 2014, respectively, and was similar to participation among White Montanans. Unfortunately, only 44% of American Indians were up-to-date with colorectal cancer screening in 2014. This is far below the national goal of 80% and presents an important challenge.
To address these disparities, the leadership of the Montana Cancer Coalition and the Montana American Indian Women’s Health Coalition (MAIWHC) collaborate on goals and strategies that are relevant to the needs of all Montana populations. The partnerships between MTCC, MAIWHC, and other American Indian-focused organizations and groups is vital to addressing the burden of cancer across Montana, cultivating conversation within the MTCC, and maintaining a strong American Indian voice.

**Figure 3.** Prevalence of commercial smoking among Montana American Indian adults and high school students compared to White Montanans, 2014 and 2015.

**DATA SOURCE:** MT Behavioral Risk Factor Surveillance System, 2014 and Youth Risk Behavior Survey, 2015

### ACHIEVING HEALTH EQUITY

The intention of the MTCC, along with its supporting partners, is to address the barriers to healthcare for all Montanans and to work to break down such barriers. One of the primary goals of the MTCC is to achieve health equity by eliminating health disparities and achieving optimal health for all Montanans. The MTCC addresses health equity through collaboration, research, tools, trainings and resources, and leadership.

Health disparities or inequities are types of health differences closely linked with social, economic, or environmental disadvantages that adversely affect groups of people. People in these groups not only experience worse health but also tend to have less access to resources that support health. In Montana, groups that have historically experienced health disparities include American Indians, people with disabilities, and rurally-located individuals.

Reducing cancer and its impact cannot be achieved through health education strategies or traditional skills-based behavior change alone. These and other forces influence the prevalence of major risk factors for cancer, diabetes, heart disease, and stroke, yet they are often unseen or unacknowledged.
In Montana, people with disabilities, including physical, sensory, developmental, and intellectual, experience health disparities. For people with disabilities, a lack of accessible medical equipment, such as height-adjustable exam tables and mammography machines, as well as wheelchair-accommodating weight machines, also creates problems for receiving preventative services.

A more complete model of health promotion must be adopted through policy and environmental change to address these environmental forces, including direct intervention on the social environment and influencing health-related behaviors that affect disability and disease.

**ACROSS THE SPECTRUM OF CARE**

**GOAL:** THE MONTANA CANCER COALITION (MTCC) FOSTERS AN ACTIVE AND DIVERSE MEMBERSHIP, DEDICATED TO CANCER PREVENTION, EARLY DETECTION, TREATMENT AND RESEARCH, QUALITY OF LIFE AND SURVIVORSHIP, AND PEDIATRIC CANCER ACROSS MONTANA.

**OBJECTIVE 1:** Improve healthcare and cancer care access for American Indians in Montana, on and off the Reservations and in Urban Centers.

**Strategy 1:** Work with the State of Montana Office of American Indian Health to convene partners in American Indian healthcare across Montana to bring the voice of American Indian cancer patients and caregivers into the conversation as Montana develops and implements plans to improve access and quality of healthcare, both on and off the Reservation.

**Strategy 2:** Collect survey data on cancer care needs of American Indians, both on and off the Reservations. This will include the spectrum of care from early detection through survivorship and end of life.

**Strategy 3:** Collaborate with state agencies; Tribal Health; Indian Health Service; and non-profit and private groups involved in American Indian healthcare to develop and maintain a landscape map to help navigate the complex array of programs, studies, services, and existing data regarding American Indian healthcare in Montana to improve access in healthcare and determine opportunities for MTCC to assist in these efforts.

**OBJECTIVE 2:** Develop and maintain an Online Montana Cancer Resource Guide (MTCRG).

**Strategy 1:** Identify Montana’s cancer services across the cancer continuum including early detection, treatment, survivorship, and end-of-life care.

**Strategy 2:** Collaborate with MTCC Implementation Teams to develop the Montana Cancer Resource Guide in a clinician and patient format.

**Strategy 3:** Develop a system to keep the Montana Cancer Resource Guide updated and accurate.

**OBJECTIVE 3:** Develop a diverse membership with expertise to implement the objectives of the 2016-2021 Comprehensive Cancer Control (CCC) Plan.

**Strategy 1:** Appoint a member of the Steering Committee to lead membership assessment and recruit new members as needed, paying attention to increasing the number of men on the Montana Cancer Coalition.

**Strategy 2:** Distribute a member satisfaction survey annually and address issues and concerns to improve satisfaction with and effectiveness of the Montana Cancer Coalition.

**Strategy 3:** Evaluate progress annually of Comprehensive Cancer Control Plan goals and objectives.
PREVENTION

GOAL: PREVENT CANCER FROM OCCURRING.

OBJECTIVE 1: Reduce the proportion of adolescents who use artificial sources of ultraviolet light for tanning.

STRATEGY 1: Advocate for policy prohibiting the use of tanning beds for minors.

STRATEGY 2: Educate and strengthen existing regulations requiring adults to receive warnings and to sign consent forms before using tanning beds.

STRATEGY 3: Conduct culturally competent community media campaigns to educate and raise awareness of the dangers of artificial UV light among various target populations.

* The target for this objective aligns with the U.S. target set by the U.S. Department of Health and Human Services’ Healthy People 2020. Even though Montana exceeded the Healthy People 2020 target in 2015, the MTCC will continue to strive to reduce indoor tanning among high school students.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of high school students (boys and girls) who reported that they used an indoor tanning device one or more times in the past 12 months.</td>
<td>YRBS</td>
<td>12% (2015)</td>
<td>14%*</td>
</tr>
</tbody>
</table>
OBJECTIVE 2: Increase the number of statewide, regional, and tribal organizations that implement sun safety practices.

STRATEGY 1: Determine the baseline number of professional organizations that have outdoor activities and distribute educational materials.

STRATEGY 2: Encourage compliance with existing sun safety practices for individuals in outdoor worksites.

STRATEGY 3: Promote sun safety policy and environmental changes in settings where outdoor activities occur.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of statewide and regional professional organizations and tribal leaders that implement sun safety practices.</td>
<td>Program data from statewide partners</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

OBJECTIVE 3: Increase the number of adolescents fully immunized against human papillomavirus (HPV).

STRATEGY 1: Partner with the Montana Immunization Program to promote policy and systems change and educate youth and parents to increase HPV vaccinations.

STRATEGY 2: Partner with Montana Immunization Program to ensure educational materials are culturally appropriate for the American Indian population.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percent of adolescent girls aged 13-17 years in Montana who are fully immunized against Human Papilloma Virus (HPV).</td>
<td>National Immunization Survey – Teen</td>
<td>43% (2014)</td>
<td>60%</td>
</tr>
<tr>
<td>The percent of adolescent boys aged 13-17 years in Montana who are fully immunized against Human Papilloma Virus (HPV).</td>
<td>National Immunization Survey – Teen</td>
<td>13% (2014)</td>
<td>40%</td>
</tr>
</tbody>
</table>
OBJECTIVE 4: Support the work of the Montana Tobacco Use Prevention Program (MTUPP) to reduce the impact of tobacco use on cancer risk and decrease the prevalence of commercial tobacco use and exposure to secondhand smoke.

Figure 4. Tobacco use among Montanans in 2014 & 2015 and the 2021 goal.


STRATEGY 1: Promote the use of the Montana Tobacco Quit Line, the Montana American Indian Quit Line, and other existing evidence-based resources to increase cessation attempts.

STRATEGY 2: Support MTUPP’s React Against Corporate Tobacco (reACT) program to prevent the initiation of tobacco use among youths.

STRATEGY 3: Support MTUPP’s efforts to eliminate disparities in low-income and American Indian populations related to commercial tobacco use and its effects.

STRATEGY 4: Educate stakeholders and partners on e-cigarettes and other nicotine delivery devices as well as on point-of-sale advertisement and product placement.

STRATEGY 5: Advocate for the continued protection of the Montana Clean Indoor Air Act (MT CIAA).
This target is from Montana’s State Health Improvement Plan and was set to be achieved by 2018. The state has currently surpassed this target, as well as the Healthy People 2020 target (16.0%), and will continue to work to decrease the percent of youth cigarette smokers.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of adults who are current cigarette smokers.</td>
<td>MT BRFSS</td>
<td>20% (2014)</td>
<td>19%</td>
</tr>
<tr>
<td>Percent of American Indian adults who are current cigarette smokers.</td>
<td>MT BRFSS</td>
<td>43% (2014)</td>
<td>38%</td>
</tr>
<tr>
<td>Percent of adult men who are current smokeless tobacco users.</td>
<td>MT BRFSS</td>
<td>14% (2014)</td>
<td>10%</td>
</tr>
<tr>
<td>Percent of American Indian adult men who are current smokeless tobacco users.</td>
<td>MT BRFSS</td>
<td>19% (2014)</td>
<td>15%</td>
</tr>
<tr>
<td>Percent of high school students who are current cigarette smokers.</td>
<td>YRBS</td>
<td>13% (2015)</td>
<td>14%*</td>
</tr>
<tr>
<td>Percent of American Indian high school students who are current cigarette users.</td>
<td>YRBS</td>
<td>20% (2015)</td>
<td>14%</td>
</tr>
<tr>
<td>Percent of high school students who are current electronic vapor product users.</td>
<td>YRBS</td>
<td>30% (2015)</td>
<td>25%</td>
</tr>
<tr>
<td>Percent of adults who always or sometimes allow smoking in their home.</td>
<td>Montana Adult Tobacco Survey (MT ATS)</td>
<td>11% (2013)</td>
<td>7%</td>
</tr>
<tr>
<td>Percent of adults who have children living with them and always or sometimes allow smoking in their home.</td>
<td>MT ATS</td>
<td>10% (2013)</td>
<td>6%</td>
</tr>
</tbody>
</table>

**OBJECTIVE 5:** Decrease prevalence of overweight and obese individuals through education, physical activity, nutrition, and health promotion/improvement interventions.

**STRATEGY 1:** Identify and implement priority health improvement strategies with Chronic Disease Prevention and Health Promotion Bureau (CDPHP); Tribal Health, Indian Health Service; and other relevant stakeholders.

**STRATEGY 2:** Advocate for sustained and increased funding of local and statewide health improvement programs.

**STRATEGY 3:** Work with Indian Health Service Behavioral Health and Tribal Health to support lifestyle changes through physical activity and nutrition.

**STRATEGY 4:** Support worksite snack bars and cafeterias in creating policies that encourage healthy nutrition standards for food and beverages provided at meetings, trainings and/or conferences.

**STRATEGY 5:** Support worksites in creating policies that establish guidelines to promote a work environment that increases opportunities for employees to engage in physical activity.

**STRATEGY 6:** Partner with worksites to create policies that support and encourage the practice of breastfeeding, accommodate breastfeeding needs of employees, and provides adequate facilities for breastfeeding or the expression of milk for the employee’s child.
STRATEGY 7: Work with the Office of Public Instruction (OPI) and school districts to strengthen school wellness policies to:

- Include access to nutritious food for all students.
- Encourage “active transportation” to school with programs such as Safe Routes to School.
- Provide quality and age-appropriate physical education to all students.
- Open recreation facilities to the community after hours.
- Reduce screen-time usage.

* This target is from Montana’s State Health Improvement Plan and was set to be achieved by 2018. The state has currently surpassed this target, as well as the Healthy People 2020 target (32.6%) and will continue to work to decrease the percent of adults who engage in no leisure time physical activity.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percent of Montana infants who are breastfed at six months.</td>
<td>National Immunization Survey</td>
<td>51% (2014)</td>
<td>61%</td>
</tr>
<tr>
<td>The percent of adults who report they engage in no leisure time physical activity.</td>
<td>MT BRFSS</td>
<td>20% (2014)</td>
<td>22%*</td>
</tr>
<tr>
<td>The percent of adults who report they are obese.</td>
<td>MT BRFSS</td>
<td>26% (2014)</td>
<td>23%</td>
</tr>
<tr>
<td>The percent of youths who report they are obese.</td>
<td>MT YRBS</td>
<td>10% (2014)</td>
<td>7%</td>
</tr>
</tbody>
</table>
EARLY DETECTION
**EARLY DETECTION**

**Figure 5.** Percent of Montana adults up-to-date with cancer screenings in 2014 and the 2021 goal.

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>2014 Percentage</th>
<th>2021 Goal Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal (men &amp; women 50-74)</td>
<td>62%</td>
<td>80%</td>
</tr>
<tr>
<td>Breast Cancer (women 50+)</td>
<td>72%</td>
<td>80%</td>
</tr>
<tr>
<td>Cervical Cancer (women 21-65)</td>
<td>81%</td>
<td>86%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Montana Behavioral Risk Factor Surveillance System, 2014
**GOAL:** DETECT CANCER AT ITS EARLIEST STAGES.

**OBJECTIVE 1:** Increase screening using nationally recognized guidelines for breast, cervical, colorectal, and lung cancers.

**STRATEGY 1:** Promote screening through culturally appropriate education and health equity approaches using one-on-one education, small media, and working directly with target populations.

**STRATEGY 2:** Educate providers, Indian Health Service and Tribal Health on screening guidelines, insurance coverage, referrals, state programs, and access barriers.

**STRATEGY 3:** Advocate for policy and practice changes within healthcare systems:
- Provide technical assistance to support office system changes, such as electronic medical records, champions, patient reminders, and provider reminders.
- Reduce structural barriers to screening.
- Provide technical assistance to support patient navigation to increase awareness of screening services.

**STRATEGY 4:** Work with payers and providers to provide lung cancer screening following the most current, clinical recommendations.11

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Montana men and women aged 50-75 who report being up-to-date with colorectal cancer screening.</td>
<td>MT BRFSS</td>
<td>62% (2014)</td>
<td>80%</td>
</tr>
<tr>
<td>Percentage of Montana American Indian men and women aged 50-75 who report being up-to-date with colorectal cancer screening.</td>
<td>MT BRFSS</td>
<td>44% (2014)</td>
<td>80%</td>
</tr>
<tr>
<td>Percentage of Montana women aged 50+ who report having had a mammogram in the past two years.</td>
<td>MT BRFSS</td>
<td>72% (2014)</td>
<td>80%</td>
</tr>
<tr>
<td>Percentage of Montana American Indian women aged 50+ who report having had a mammogram in the past two years.</td>
<td>MT BRFSS</td>
<td>69% (2014)</td>
<td>80%</td>
</tr>
<tr>
<td>Percentage of Montana women aged 21-65 years who report having had a Pap test in the past three years.</td>
<td>MT BRFSS</td>
<td>81% (2014)</td>
<td>86%</td>
</tr>
<tr>
<td>Percentage of Montana American Indian women aged 21-65 years who report having had a Pap test in the past three years.</td>
<td>MT BRFSS</td>
<td>80% (2014)</td>
<td>86%</td>
</tr>
</tbody>
</table>
**OBJECTIVE 2:** Increase the use of hereditary cancer risk assessment through genetic counseling and appropriate genetic testing for those whose family histories are associated with an increased risk for genetic mutations.**

**STRATEGY 1:** Establish baseline data on providers, men, and women who report understanding the benefits of genetic testing.

**STRATEGY 2:** Educate providers, Indian Health Service, Tribal Health, and all Montanans about appropriate genetic testing and counseling for all whose family history may be associated with an increased risk for genetic mutations.

**STRATEGY 3:** Include genetic counseling and testing resources in the Online Montana Cancer Resource Guide.

* As reported by a total of two medical facilities in Montana offering risk-assessment services and Genetic Testing by a licensed Genetic Counselor.

** At date of publication, USPSTF guidelines support routine genetic counseling or BRCA testing for women whose family history is associated with an increased risk for potentially harmful mutations in the BRCA1 or BRCA2 genes.

<table>
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<th>Measure</th>
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<th>Baseline (year)</th>
<th>Target</th>
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TREATMENT & RESEARCH
TREATMENT & RESEARCH

GOAL: DIAGNOSE AND TREAT ALL PATIENTS USING THE MOST EFFECTIVE PATIENT AND FAMILY-CENTERED CARE.

OBJECTIVE 1: Increase availability of and access to diagnostic and cancer treatment modalities.

STRATEGY 1: Increase the number of Montanans signed up for affordable and adequate health insurance including Medicaid, HELP Act, and the Affordable Care Act Exchange.

STRATEGY 2: Collaborate with stakeholders including Indian Health Service and Tribal Health to provide education on the importance of obtaining a primary healthcare provider, and the benefits of having healthcare coverage and advocating for your own health.

STRATEGY 3: Implement a review of the state of access to healthcare related to travel distance needed, identify gaps, and develop ways to increase the number of people in Montana who travel 100 miles or less to access healthcare.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percent of Montanans aged 18-64 years with health insurance.</td>
<td>BRFSS</td>
<td>83.9% (2014)</td>
<td>100%</td>
</tr>
<tr>
<td>The percent of Montana American Indians aged 18-64 years with health insurance.</td>
<td>BRFSS</td>
<td>83.9% (2014)</td>
<td>100%</td>
</tr>
<tr>
<td>Percent of Montanans who can access cancer diagnostics within 100 miles of where they live.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Percent of Montanans who have access to some portion of cancer treatment within 100 miles of where they live.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

**OBJECTIVE 2:** Increase the percentage of cancer patients who are annually accrued to clinical trials.

**STRATEGY 1:** Promote available clinical trials in Montana with the Montana Cancer Consortium National Cancer Institute Community Oncology Research Program (MCC-N-CORP) and cancer centers.

**STRATEGY 2:** Implement uniform clinical trials awareness month activities throughout Montana.
**STRATEGY 3:** Identify and address cultural barriers to clinical trials access for all American Indians.

**STRATEGY 4:** Create and disseminate clinical trial information designed specifically for American Indians and under-served populations.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of patients who are annually accrued to clinical trials.</td>
<td>Montana Cancer Consortium</td>
<td>1.3% (2015)</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>N-CORP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of American Indian patients who are annually accrued to</td>
<td>Montana Cancer Consortium</td>
<td>1.2% (2015)</td>
<td>4%</td>
</tr>
<tr>
<td>clinical trials.</td>
<td>N-CORP</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
QUALITY OF LIFE & SURVIVORSHIP
QUALITY OF LIFE & SURVIVORSHIP

GOAL: ENHANCE SURVIVORSHIP AND QUALITY OF LIFE FOR EVERY PERSON AFFECTED BY CANCER.

OBJECTIVE 1: Increase the number of cancer survivors who receive a comprehensive care summary and follow-up plan after completing treatment.

STRATEGY 1: Provide culturally competent training and resources to cancer centers to implement comprehensive survivorship care plans and provide these summaries to primary care providers.

STRATEGY 2: Advocate for the inclusion of accessible survivorship and rehabilitation services within the comprehensive care summary.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of patients receiving a care summary.</td>
<td>Commission on Cancer Accredited Hospitals</td>
<td>TBD</td>
<td>100%</td>
</tr>
</tbody>
</table>
OBJECTIVE 2: Increase the number of cancer patients, families, and caregivers who are connected with psychosocial and rehabilitation services.

STRATEGY 1: Collaborate with partners to assess and address gaps in resources statewide.

STRATEGY 2: Collaborate with partners to collect and disseminate information regarding psychosocial and rehabilitative services statewide, including American Indian Reservations.

STRATEGY 3: Develop, organize, and participate in annual activities designed to support prostate and testicular cancer survivors.

STRATEGY 1: Survey the state to determine the number of sites that offer culturally competent palliative care and hospice services, and develop an expansion plan to move services into communities lacking palliative care and hospice services.

STRATEGY 2: Increase the number of health professionals who are professionally trained in palliative care and hospice.

STRATEGY 3: Promote the importance of end-of-life care plans for patients and families at the point when treatment is no longer viable.

STRATEGY 4: Partner with higher education health programs to increase the number of health professionals who are trained in palliative care, hospice, and gerontology.

*  Non-clinical support services encompass resources beyond medical treatment that are essential for people experiencing a life altering health challenge. Often needed are resources to support emotional, spiritual and physical changes that impact a person’s well-being, as well as resources for transportation, health insurance, day-to-day needs, long range planning, general finances, as well as youth and family support.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of non-clinical* support services available to people in Montana.</td>
<td>Cancer Support Community Montana</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
OBJECTIVE 4: Increase the use of advanced care plans.

STRATEGY 1: Promote completion of advanced care planning documents for all cancer patients near the time of diagnosis or early in treatment.

STRATEGY 2: Educate clinic staff to facilitate culturally competent conversations about advanced care planning and encourage patients to register with the Attorney General.

* The Attorney General’s Office has established a goal of achieving 100 advance directive plans registered per month for a total of 6,000 over the five-year period.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of advance directive plans registered with the Attorney General’s Office.</td>
<td>MT Department of Justice</td>
<td>17,619 (2015)</td>
<td>23,619*</td>
</tr>
</tbody>
</table>
PEDIATRIC CANCER
PEDIATRIC CANCER

GOAL: ENSURE CHILDHOOD CANCER PATIENTS ARE PROVIDED PATIENT-CENTERED TREATMENT AND SURVIVORSHIP SERVICES THAT IMPROVE QUALITY OF LIFE.

OBJECTIVE 1: Increase Montana’s capacity to provide a continuum of care for youth with cancer from diagnosis through long-term survivorship.

STRATEGY 1: Partner with Montana Central Tumor Registry to gather comprehensive information on pediatric cancer cases to determine where treatment was completed and increase the number of In-State Primary Treatment Plans when possible with a Board Certified Pediatric Oncologist and Pediatric Specialists.

STRATEGY 2: Collaborate with Montana Children’s Special Health Services to ensure that milestone development is incorporated into the care plan early in the diagnosis.

STRATEGY 3: When In-State Primary Treatment is not possible, incorporate a Montana Board Certified Pediatric Oncologist into a child’s treatment plan for supportive care.
**STRATEGY 4:** Develop a framework for pediatricians/family practice doctors in Montana to work with Pediatric Oncologists (in-state and out-of-state) for maintaining long-term survivorship plans.

**STRATEGY 5:** Increase access to home and hospice care for pediatric patients.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of pediatric cancer cases which receive treatment within at least one Montana facility.</td>
<td>Montana Central Tumor Registry</td>
<td>48% (2010-2014)</td>
<td>55%</td>
</tr>
</tbody>
</table>

**OBJECTIVE 2:** Increase education to schools, families, primary care providers, health departments, Indian Health Service and Tribal Health Care on the physical, emotional, and cognitive impact of childhood cancer.

**STRATEGY 1:** Educate healthcare providers, Indian Health Service and Tribal Health on resources and pediatric oncology services available in Montana to treat children with cancer.

**STRATEGY 2:** Develop and maintain a list of resources connected with the Montana Cancer Resource Guide for families affected by pediatric cancer.

**STRATEGY 3:** Educate state nurses, K-12 educators, and school counselors on the physical, emotional, and cognitive impacts of childhood cancer.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of people receiving information.</td>
<td>MTCC Steering Committee</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
**OBJECTIVE 3:** Increase the number of psychosocial support services in Montana for youths and families.

**STRATEGY 1:** Collaborate with key partners and partnership member organizations to collect and disseminate information on psychosocial and rehabilitative services available.

**STRATEGY 2:** Assess and address gaps in psychosocial support services for youths and their families statewide.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Baseline (year)</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of services available.</td>
<td>Cancer Support Community Montana</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
REFERENCES

1. Montana Department of Public Health and Human Services, Montana Central Tumor Registry, 2009-2013.


RESOURCES

Agency for Healthcare Research and Quality (AHRQ)
www.ahrq.gov

American Cancer Society (including American Cancer Society Facts and Figures)
www.cancer.org

American College of Surgeons, Commission on Cancer
www.facs.org/cancer/index.html

American Society of Clinical Oncology
www.asco.org

American Society of Clinical Oncology (ASCO)—People Living with Cancer
www.cancer.net/portal/site/patient

Cancer Care
www.cancercare.org

Cancer Control Planet
www.ccplanet.cancer.gov/index.html

Centers for Disease Control and Prevention (CDC)
www.cdc.gov

Council of State Governments
www.csg.org/policy/health.aspx

Cancer Support Community
www.cancersupportcommunity.org

Healthy People 2020
www.healthypeople.gov/2020/topics-objectives

Montana Central Tumor Registry Annual Report

National Comprehensive Cancer Control Program
www.cdc.gov/cancer/ncccp/index.htm

National Cancer Institute (NCI)
www.cancer.gov

NCI Cancer Progress Report
www.progressreport.cancer.gov

National Coalition for Cancer Survivorship
www.canceradvocacynow.org

National Comprehensive Cancer Network
www.nccn.org

National Consensus Project on Quality Palliative Care
www.nationalconsensussympo.org

Partners for Prevention
www.prevent.org
GLOSSARY

ADVANCED DIRECTIVE: A legal document that allows a person to convey decisions about end-of-life care ahead of time. It provides a way to communicate personal wishes to family, friends, and healthcare professionals.

CANCER: An umbrella term used to describe many different diseases in which cells grow and reproduce out of control.

CANCER BURDEN: The overall impact of cancer in a community.

CARCINOGEN: Any substance known to cause cancer.

CESSATION: To cease or end.

CLINICAL TRIALS: Research studies that involve patients. Studies are designed to find better ways to prevent, detect, diagnose, or treat cancer and to answer scientific questions.

COGNITION (or Cognitive): The set of all mental abilities and processes related to knowledge, attention, memory and working memory, judgment and evaluation, reasoning and computation, problem solving and decision making, comprehension and production of language, etc.

CULTURALLY APPROPRIATE: Term used to describe how healthcare providers and organizations understand and respond effectively to the cultural and linguistic needs of a patient. This includes being able to recognize and respond to a patient’s beliefs and values, disease incidence, and prevalence and treatment outcomes.

DISABILITY: A physical or mental condition that limits a person’s movements, senses, or activities. A disadvantage or handicap, especially one imposed or recognized by the law.

DISSEMINATE: To spread or disperse (something, especially information) widely.

EPIDEMIOLOGY: The study of disease incidence and distribution in populations, and the relationship between environment and disease. Cancer epidemiology is the study of cancer incidence and distribution as well as the ways surroundings, occupational hazards, and personal habits may contribute to the development of cancer.

ENDOSCOPY (or Endoscopic): Looking inside the body for medical reasons using an endoscope, an instrument used to examine the interior of a hollow organ or cavity of the body.

EVIDENCE-BASED: Refers to the use of research and scientific studies to determine best practices.

FOLLOW-UP: Monitoring a person’s health over time after treatment. This includes keeping track of the health of people who participate in a clinical study or clinical trial for a period of time, both during the study and after the study ends.

GENETICS: The study of genes, heredity, and genetic variation in living organisms.

GERONTOLOGY: The study of the social, psychological, cognitive, and biological aspects of aging.

GOAL: A limited number of critical ends toward which a plan is directed. Goals address broad, fundamental components of success. They represent a general focus area, without specifications about how to achieve them.

HEALTHCARE PROVIDERS: Practitioners in disease prevention, detection, treatment, and rehabilitation. They include physicians, nurses, dentists, dietitians, social workers, therapists, Indian Health Service units, tribal health care facilities, complementary medicine providers, and others.
HEALTH EQUITY: When all people have 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.

HEALTH DISPARITIES: Differences in the incidence, prevalence, mortality, and burden of cancer and related adverse health conditions that exist among specific population groups in the United States.

HIGH-RISK: Describes an individual or group of people for whom the chance of developing cancer is greater than for the general population. People may be considered to be at high risk from many factors or a combination of factors, including family history, personal habits, and exposure to carcinogens.

HOSPICE: Special care and assistance for people in the final phase of illness as well as for their families and caregivers; usually provided in the patient’s home or a homelike facility.

HUMAN PAPILLOMA VIRUS (HPV): A virus with subtypes that cause diseases in humans ranging from common warts to cervical cancer.

INCIDENCE: The number of times a disease occurs in a given population. Cancer incidence is the number of new cases of cancer diagnosed each year. The Montana Central Tumor Registry maintains cancer incidence data in Montana.

INCIDENCE RATE: A measure of the rate at which new events occur in the population. The number of new cases of a specified disease diagnosed or reported during a defined period of time is the numerator, and the number of persons in the stated population in which the cases occurred is the denominator.

INVASIVE: Pertaining to a disease tending to spread prolifically and undesirably or harmfully.

LOCALIZED STAGE: Cancer that is limited to the site of origin. There is no evidence of metastasis elsewhere in the body.

MALIGNANCY (or Malignant): Cancerous; able to invade nearby tissue and to spread to other parts of the body.

MAMMOGRAPHY: A technique using X-rays to diagnose and locate tumors of the breasts.

METASTATIC CANCER STAGE: Cancer that has spread from the place in which it started to other parts of the body.

MEASURE: Providing information to gauge progress toward an intended outcome or objective.

MORBIDITY: Any departure, subjective or objective, from a state of physiological or psychological well-being. In this sense, sickness, illness, and morbid conditions are similarly defined and synonymous.

MORTALITY RATE: A rate expressing the proportion of a population who dies of a disease, or of all causes.

NONINVASIVE: An early-stage cancer that has remained localized and confined to the layer of tissue from which it first developed and has not spread (metastasized) to surrounding tissue or other parts of the body.

OBESITY: A condition in which a person has abnormally high amounts of unhealthy body fat; medically defined as a body mass index of 30 or greater.
**OBJECTIVE:** Specific, measurable outcomes that will lead to achieving a goal.

**OVERWEIGHT:** Being too heavy for one’s height. Excess body weight can come from fat, muscle, bone, and/or water retention. Being overweight (medically defined as 25.0 to 29.9 body mass index) does not always mean being obese.

**PALLIATIVE CARE:** Care that does not alter the course of a disease but does improve quality of life.

**PAPANICOLAOU (PAP) SCREENING / PAP TEST:** A test to detect cancer of the cervix or lining of the uterus.

**PRECANCEROUS LESION:** A change in some areas of the skin that carries the risk of becoming skin cancer.

**PREVALENCE:** In medical terminology, the number of cases of a disease that are present in a population at a point in time. In the case of smoking prevalence in a population, the term is used to define the number of people in that population who are regular smokers.

**PRIMARY PREVENTION:** The reduction or control of factors believed to be causative for health problems; prevention strategies might include risk reduction, education, health service intervention, or preventive therapy.

**PSYCHOSOCIAL:** Of or relating to the interrelation of social factors and individual thought and behavior.

**QUALITY OF LIFE:** In cancer treatment, the concept of ensuring that cancer patients are able to lead the most comfortable and productive lives possible during and after treatment.

**REGIONAL CANCER:** Cancer that extends beyond the limits of the site of origin into surrounding organs or tissues or regional lymph nodes.

**RISK FACTOR:** Anything that has been identified as increasing the chance of getting a disease, for example, tobacco use, obesity, age, or family history of some cancers.

**SECONDHAND SMOKE:** Smoke that comes from the burning end of a cigarette and smoke exhaled by smokers.

**STRATEGY:** Specific processes or steps undertaken to achieve objectives. To the extent possible, strategies are evidence-based.

**SURVIVOR:** A person who has been diagnosed with cancer from the day of diagnosis throughout his or her life.

**SURVIVORSHIP CARE PLAN:** A record of a patient’s cancer history and recommendations for follow-up care. It should define the responsibilities of cancer-related, non-cancer-related, and psychosocial providers.

**TERTIARY PREVENTION:** Involves providing appropriate supportive and rehabilitative services to minimize morbidity and maximize quality of life, such as rehabilitation from injuries. It includes preventing secondary complications.