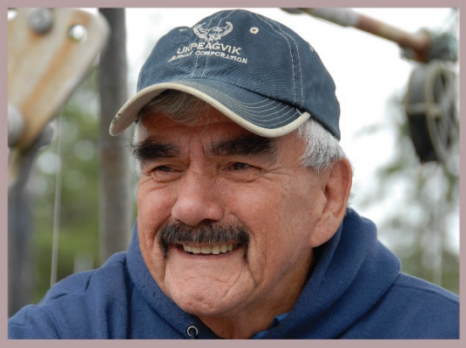
Alaska Comprehensive Cancer Control Plan

2016-2020

Produced by the State of Alaska Department of Health and Social Services http://dhss.alaska.gov/dph/Chronic/Pages/Cancer/comprehensive.aspx



STATE of ALASKA Department of Health and Social Services

ALASKA Comprehensive Cancer Partnership

Promotion Prevention Protection ALASKA DIVISION OF Public Health

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Acknowledgments

We wish to acknowledge and thank those who helped create the Alaska Comprehensive Cancer Control Plan 2016-2020 and who continue to work toward a cancer free Alaska.

Alaska Comprehensive Partnership (ACCP) Members

AARP Alaska Chapter
Alaska Cancer Care Alliance
Alaska Health Education Centers
Alaska Health Fairs
Alaska Medical Specialties
Alaska Men's Run
Alaska Primary Care Association
Alaska Radiation Therapy Center
Alaska Regional Hospital Cancer Center
American Cancer Society, Alaska Chapter
American Cancer Society, Cancer Action Network Alaska
ANTHC Division of Community Health Services Cancer Planning Program
Arctic Slope Regional Breast and Cervical Screening Programs
George Washington Cancer Institute
Identity, Inc.
Katmai Oncology
Leukemia Lymphoma Society
Mind Matters Research
Mountain Pacific Quality Improvement Organization
Peninsula Community Health Services of Alaska
Providence Cancer Center, Patient Navigation Team
Seattle Cancer Care Alliance
Southcentral Foundation Wellness Programs
Southeast Alaska Regional Health Consortium, Screening Programs
State of Alaska, Alaska Cancer Registry
State of Alaska, Breast and Cervical Health Check Program
State of Alaska, Obesity Prevention and Control Program
State of Alaska, Section of Health Planning and Systems Development
State of Alaska, Tobacco Prevention and Control Program
The J. Michael Carroll Cancer Center at Fairbanks Memorial Hospital
University of Alaska Anchorage
University of Alaska Fairbanks
WOMEN Listen
Yukon Kuskokwim Health Corporation Screening Programs
YWCA Alaska

A Letter to Alaskans

December 2016

We are pleased to present Alaska's Comprehensive Cancer Control Plan for 2016 - 2020 and thank the Alaska Comprehensive Cancer Partnership (ACCP) for their work in preparing it. To create this plan, the ACCP looked carefully at the current cancer burden and the best practices for cancer prevention and control, and we recommend these future actions to address cancer prevention, screening, early detection, access to quality treatment, high quality cancer survivorship, and palliative care in Alaska through policy, system and environmental changes and the evaluation of progress.

All of us have been touched by cancer in some way and at some time in our lives, whether it is our own story or that of our parent, sibling, child, friend or work colleague. We know that cancer continues to impact lives long after the time of diagnosis.

This plan takes a comprehensive approach. It is a call to action for everyone to be involved. We can all do our part by helping ourselves and by helping others achieve healthier lifestyles, get appropriate screenings and volunteer to work on one of the many strategies outlined in this plan

We thank the individuals and organizations who have dedicated their time and expertise to develop this plan. This plan is dedicated to all of the Alaskans living with cancer.

Dr. Jay Butler, Chief Medical Officer
Director, Division of Public Health

Introduction

Comprehensive Cancer Control in Alaska

The Alaska Comprehensive Cancer Control Plan 2016 - 2020 is a living document comprised of six broad goals for reducing the burden of cancer for Alaskans. In order to meet these goals, the plan includes specific objectives, strategies, and measurable outcomes for the next five years. The chapters included in this Plan reflect the full continuum of cancer prevention and control from health promotion and advocacy, prevention, screening and early detection, diagnosis, treatment and survivorship, as system-level evaluation and surveillance efforts.

Since 1993, cancer has been the leading cause of death for Alaskans. With improved screening and treatment more people are surviving and living with cancer, which has led to a shift to considering cancer as a chronic disease. To address the issues around cancer prevention and control in Alaska, the State of Alaska, Division of Public Health received a planning grant in 2003 to develop a state cancer plan from the Centers for Disease Control and Prevention. A second grant to support implementation of that plan was received in 2007 and funding was renewed in 2012 by CDC.

The Alaska Comprehensive Cancer Control Program and the Alaska Comprehensive Cancer Partnership (ACCP) developed this plan with leadership from the Steering Committee and assistance from a local contractor, Agnew::Beck Consulting. This plan, the State of Alaska's fourth Comprehensive Cancer Control Plan, continues the same statewide goals as earlier plans, and updates the objectives, strategies and measurable outcomes to reflect current efforts and priorities to reduce the cancer burden in Alaska.

The priorities and actions in this plan draw from key informant interviews; research to assess the current cancer burden using state data sources including Behavioral Risk Factor Surveillance System, Healthy Alaskans 2020 and the Alaska Cancer Registry; and, input from ACCP committees and the Steering Committee.

ACCP brings together multiple groups and resources to reduce the burden of cancer, which includes risk reduction, early detection, improved treatment, and enhanced survivorship. Members meet annually as a full partnership to assess the cancer burden and determine priorities and strategies that will have a positive impact on the cancer burden. Progress on the implementation of this plan is reviewed during these annual meetings. ACCP members also meet monthly to address priority areas. Current workgroups include cancer clinical trials, breast cancer, cancer survivorship, and reducing the burden of colorectal cancer.

Working Together for a Cancer Free Alaska: Vision, Mission, Partnership and Goals

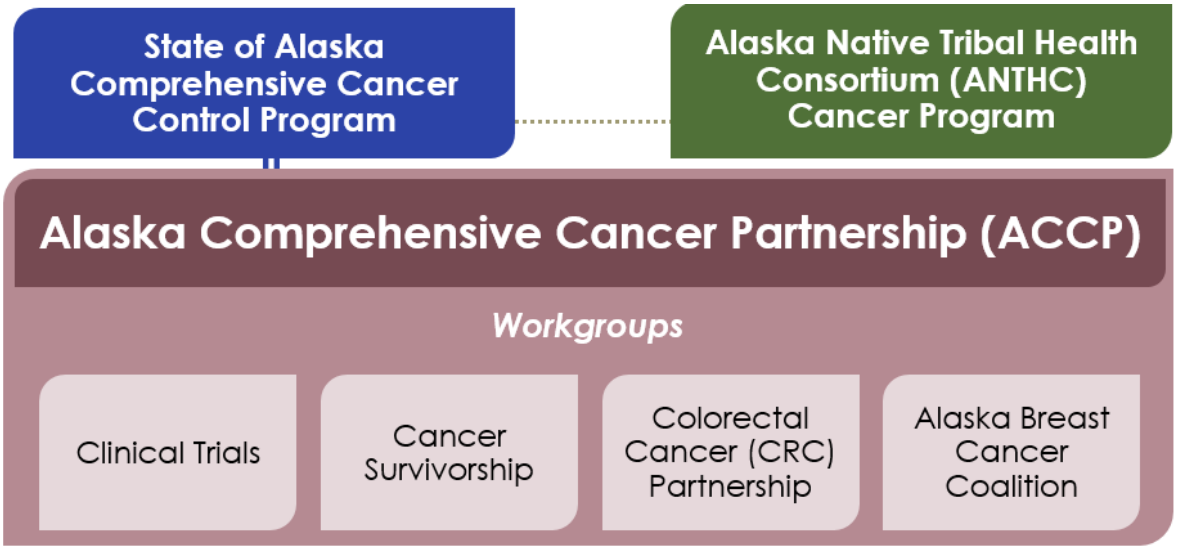
Vision

A Cancer Free Alaska

Mission

Working Together for a Cancer Free Alaska

Our Partnership



Goals

Goal 1	Educate public, providers, payers, and policy makers on cancer issues	**Goal 4**	Diagnose and treat all people with cancer using the most effective and quality care
Goal 2	Prevent cancer from occurring	**Goal 5**	Enhance survivorship and quality of life for every person affected by cancer
Goal 3	Detect cancer at its earliest stages	**Goal 6**	Maintain high quality surveillance data and incorporate latest research and best practices in cancer prevention and treatment

Guiding Principles for Cancer Control

Comprehensive cancer control in Alaska is guided by the following principles:

1. All Alaskans are impacted by cancer, either directly or in their families and communities. Therefore, reducing the burden of cancer is the responsibility of all Alaskans.
2. Decision-making will be driven by the best available data and evidenced-based practice.
3. The full spectrum of cancer will be addressed, beginning with prevention and early detection through treatment, survivorship, palliation, and end-of-life care.
4. Cancer care should be available to all Alaskans and occur as close to one's home and community as possible.
5. Disparities in the cancer burden will be identified and addressed through the planning and implementation of goals and strategies in the Alaska Comprehensive Cancer Control Plan.
6. Planning for the Alaska Comprehensive Cancer Control Program will include collaboration with the Alaska Native Tribal Health Consortium (ANTHC) to coordinate and integrate resources whenever possible.
7. Coordination and collaboration among partners is essential to achieving the goals of the plan and to avoid duplication of efforts.
8. It is essential the Partnership monitor federal, state and local legislation and policy development to provide advocacy for changes that enhance our goals and intervene when changes may hinder our goals.

Priorities for 2016 and 2017

The Alaska Comprehensive Cancer Partnership has identified the following priorities for 2016 and 2017. These priorities also reflect current and ongoing work of the Partnership as well as the national priorities established by the CDC. The objectives emphasize preventative measures that prioritize cost-effective and scalable programs. In addition, the priorities reflect new opportunities created by significant shifts in a changing policy and healthcare landscape.

Priority 1: Increase vaccination rates against Human Papillomavirus (HPV) is focused on efforts that lead vaccination campaigns and build partnerships with health professionals to protect adolescents against vaccine-preventable diseases, including the cancers caused by Human Papillomavirus (HPV) infection.

Priority 2: Reduce exposure to secondhand smoke for all Alaskans and decrease the use of tobacco among cancer survivors has two elements: the first seeks to protect all Alaskans from secondhand smoke exposure by providing education on the health risks associated with the exposure to secondhand smoke and the second has been adopted from current CDC priorities.

Priority 3: By 2018, increase colorectal cancer screening to 80% of all people over age 50, over age 40 for Alaska Native People, and over age 45 for African American People reinforces the importance of screening in preventing colorectal cancer particularly for higher risk groups. Screening can detect pre-cancerous polyps, which can be removed before the polyps become cancerous.

Together, we can work toward a healthy, cancer free Alaska!

Everyone

Make healthy choices for you and your family: eat fruits and vegetables, get daily exercise, and never use tobacco.

Get vaccinations and screenings that help prevent and detect cancer.

Make a meal or send an encouraging note to a cancer survivor in your life.

Survivor

Participate in cancer research.

Volunteer and advocate for better quality of life for all cancer survivors.

Come together with other survivors to provide support and share experiences.

Health Care Provider

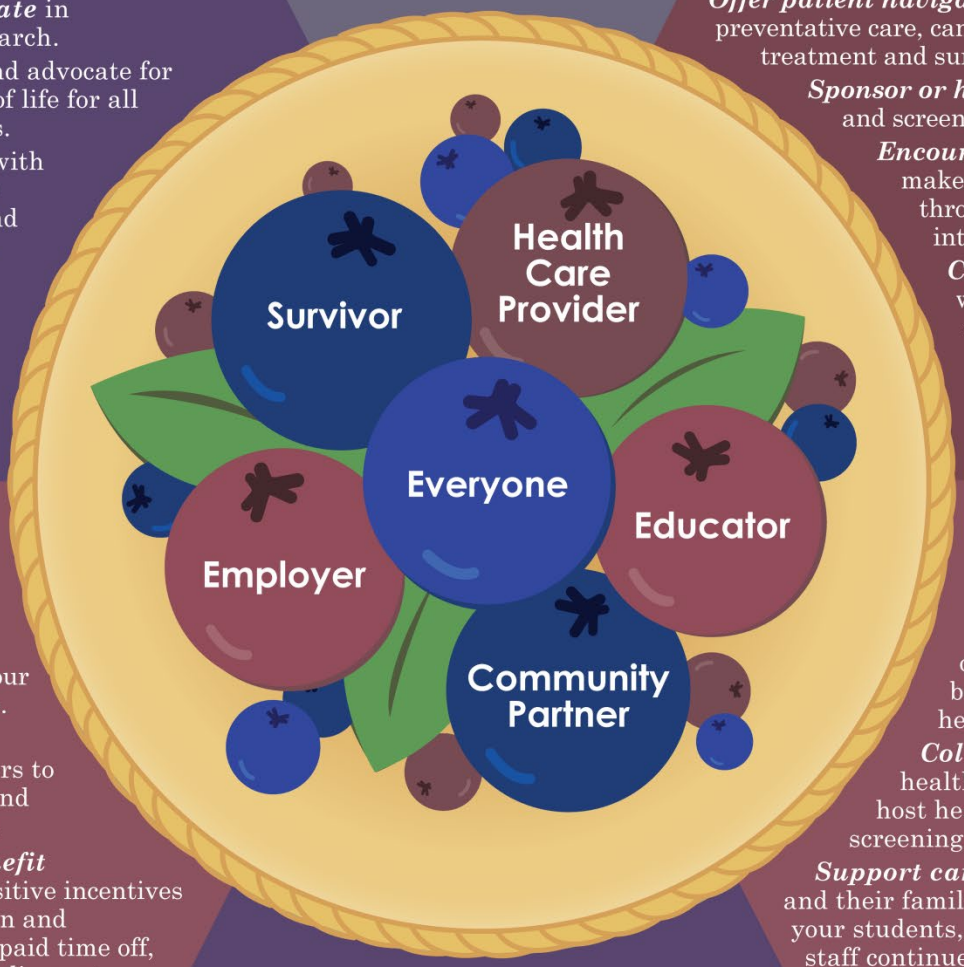
Offer patient navigation for preventative care, cancer screening, treatment and survivorship.

Sponsor or host health fairs and screening events.

Encourage patients to make healthy choices through brief interventions.

Connect patients with clinical trials and innovative reatments.

Make appropriate referrals to palliative and end-of-life care.



Employer

Promote healthy policies: provide healthy foods, encourage physical activity, and make your business tobacco-free.

Collaborate with health care providers to host health fairs and screening events.

Implement benefit programs: positive incentives for vaccination and screenings, paid time off, insurance discounts, and support for survivors and their families.

Educator

Include cancer prevention and other healthy behavior messages in health classes.

Collaborate with health care providers to host health fairs and screening events.

Support cancer survivors and their families to help your students, faculty and staff continue to thrive.

Community Partner

Promote healthy policies: provide healthy foods, encourage physical activity, and make your organization tobacco-free.

Provide health care navigation for your clients or members.

Share important prevention and screening information.

Host or help organize cancer survivor support groups.

To find out more contact: Alaska State Comprehensive Cancer Control Program
Send e-mail to cancer@alaska.gov | http://dhss.alaska.gov/dph/Chronic/Pages/Cancer/comprehensive.aspx

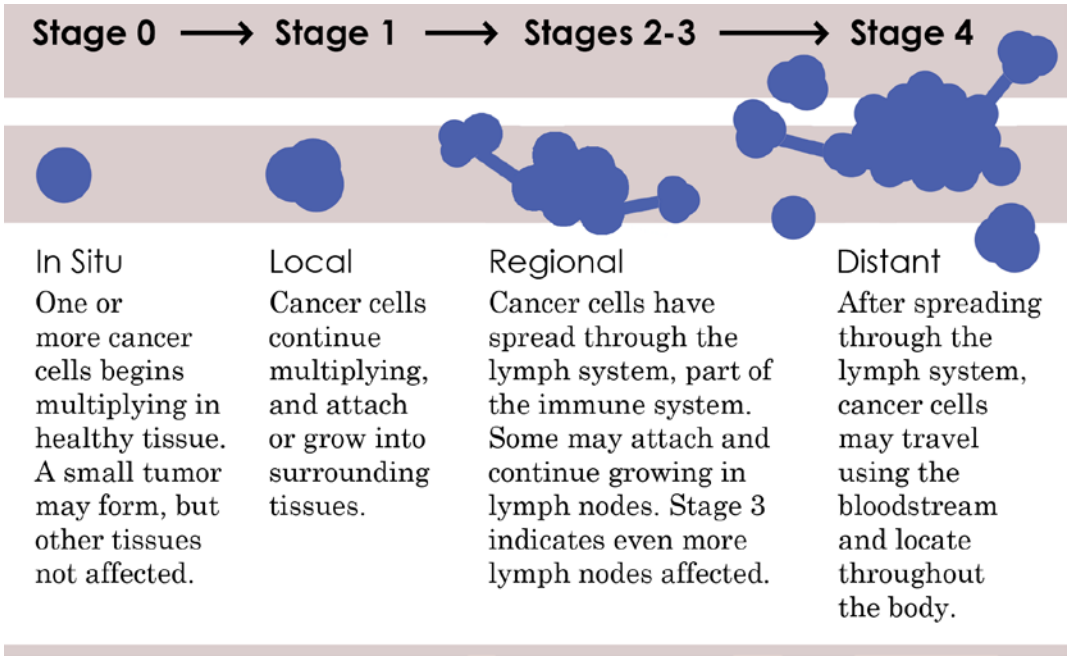
Burden of Cancer in Alaska

What is Cancer?

Cancer is often referred to as a single disease, but there are over one hundred types of cancers associated with the specific organ or location in which they originate in the body. All types of cancer are defined by uncontrolled cell division, beginning in one location and, if not treated or removed, spreading into other areas of the body.[1]

Cancer is generally described by where it first developed, and how much it has infiltrated other tissues. Its development at the time of diagnosis is described as its stage, a number from 0 to 4: a cancer detected at stage 0 is located only within that cell tissue (in situ), while a stage 4 cancer has spread far beyond its place of origin into other systems and organs in the body. Figure 1 illustrates how cancer is characterized by its location, spread, and how this corresponds to the stage assigned at diagnosis. Cancer is described as having metastasized when it spreads from one part of the body into other parts of the body (commonly lymph nodes, lungs, liver or bone tissue). Stage 4 indicates that cancer has metastasized into multiple other systems in the body. Metastatic cancers are more difficult to treat and may have lower survival rates, as cancer cells have been able to spread into multiple areas.

Figure 1. Development and Stages of Cancer



Cancer and Chronic Disease

Cancer is the leading cause of death in Alaska, and the second-leading cause of death in the U.S.[2] As prevention, screening, diagnosis and treatment systems improve, cancer remains a serious disease but with increasingly better short- and long-term outcomes for individuals after diagnosis. The

[1] National Cancer Institute, Cancer Facts, http://www.cancer.gov.

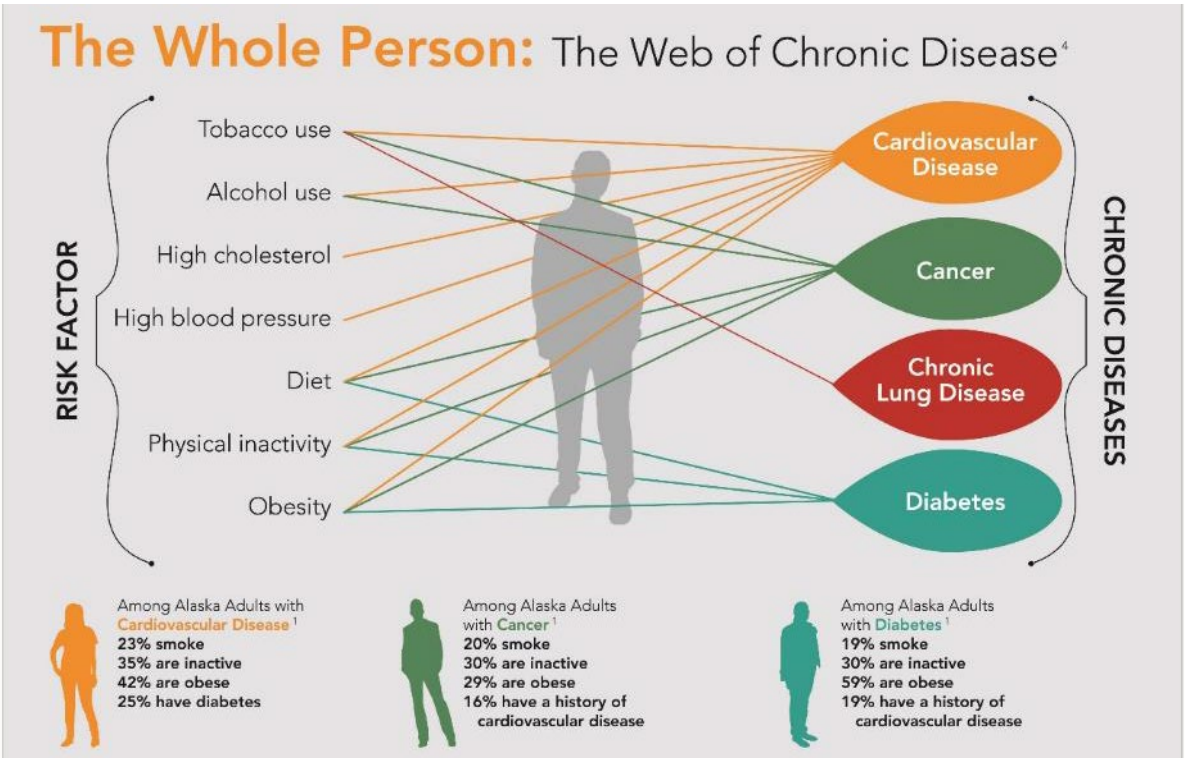
[2] Alaska Bureau of Vital Statistics, 1993–2013; United States Cancer Statistics: 1999–2012 Incidence and Mortality.

medical community has made a shift to describing and approaching treatment of cancer as a chronic disease, recognizing its lasting impacts on survivors. Cancer is also characterized as a chronic disease because it is often a long-term condition that requires regular monitoring with potential for recurrence or further spread, even after successful treatment.

It is important to understand the links between behaviors and risk factors, chronic conditions such as heart disease and diabetes, and cancer. Figure 2 illustrates the prevalence of multiple chronic diseases among Alaska adults and correlations between behavioral risk factors and the most common chronic diseases, including cancer.

Figure 2. Alaskans with Multiple Chronic Conditions and Risk Factors[3]

More than half of Alaska adults report that they have one or more of the following risk factors: obesity, inactivity, smoking, history of diabetes, history of cardiovascular disease, or cancer. But how many are dealing with more than one?[1]

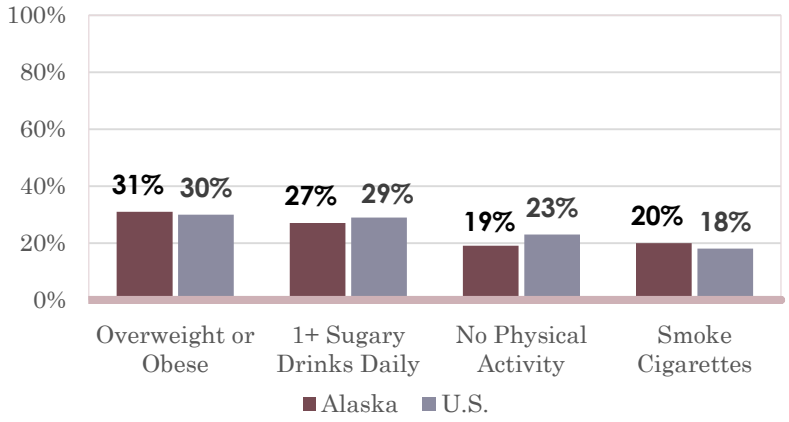


[1] AK BRFSS (2009-2011) [2] Anderson G. Chronic Care: Making the Case for Ongoing Care. Princeton, NJ: Robert Woods Johnson Foundation, 2010. [3] Centers for Medicare and Medicaid Services (CMS). State Level Chronic Condition Reports. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/CC_Main.html. Accessed 12-11-2012. [4] Remington PL, Brownson RC, Wegner MV, eds. Chronic Disease Epidemiology and Control, 3rd Ed. Washington DC: American Public Health Association; 2010. [5] Ford ES, Bergmann MM, Kroger J, Schienkiewitz A, Weikert C, Boeing H. Healthy living is the best revenge. Findings from the European Prospective Investigation Into Cancer and Nutrition-Potsdam Study. Arch Intern Med 2009;169(15):1355-1362

[3] Image produced by Agnew::Beck Consulting for the Alaska Department of Health and Social Services, Section of Chronic Disease Prevention and Health Promotion.

Figure 3 provides a snapshot of selected behavior risk factors for chronic disease. Specific risk factors, including tobacco use, weight status, adverse childhood experiences (ACEs) and changing demographics, are discussed in more detail below.

Figure 3. Behavior Risk Factors for Alaska Adults, 2014 [4]

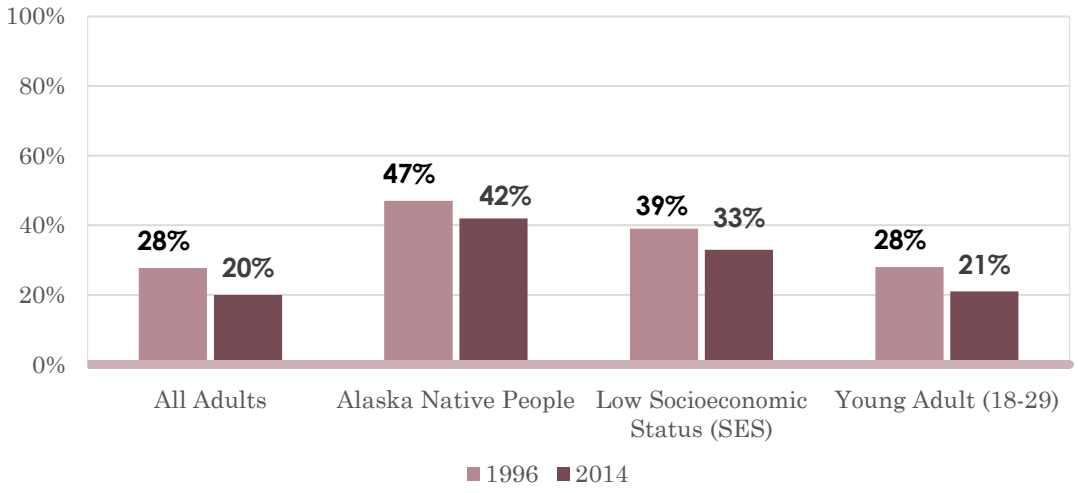


Tobacco Use

Tobacco use is the leading cause of preventable illness and death, and has been strongly linked with several forms of cancer. The 2014 Surgeon General's Report on the Health Consequences of Smoking estimated that the number of premature deaths attributed to smoking and secondhand smoke exposure exceeded 20 million in the last five decades. The 2014 report identified causal links between tobacco use and colorectal and liver cancers, in addition to previously identified links to cancers of the oral cavity, pharynx, larynx, esophagus, lung, bladder, stomach, cervix, kidney, and pancreas, as well as acute myeloid leukemia.[5]

Alaska has made considerable strides to reduce the harms of tobacco, but much work remains. Tobacco use rates have dropped significantly in the last two decades, but some population groups continue to use tobacco much more than the general population (Figure 4). Many local jurisdictions and individual organizations have enacted smokefree indoor air policies, an effective way to reduce or eliminate secondhand smoke exposure at work and in other public places. The state currently does not have a statewide law.

Figure 4. Smoking Prevalence of Alaska Adults and Selected Populations, 1996 and 2014 [6]



[4] Alaska BRFSS, 2014.

[5] U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

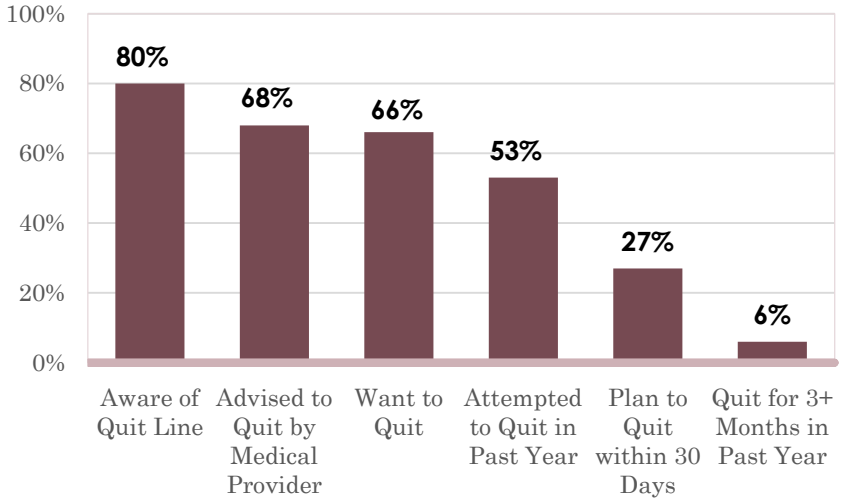
[6] Alaska BRFSS, 2014.

There is no safe amount of tobacco use, and preventing young people from becoming addicted is the best way to prevent future death and disease from tobacco. Tobacco use among youth and young adults has decreased dramatically in Alaska: the smoking rate among high school students declined from 37 percent in 1995 to 11 percent in 2015. There is still cause for concern, however: in the same year, 18 percent of high school students reported using e-cigarettes, also known as electronic nicotine delivery systems (ENDS), and 19 percent of students reported using marijuana in the last month.[7] There are currently few data on the long-term health impacts of both products, including possible links to cancer.

E-cigarettes are a new technology that has not yet been regulated in the United States, and the liquids used to produce the aerosol have been shown to contain a wide variety of chemical compounds, some of which are known carcinogens.[8]

Marijuana, classified as an illegal controlled substance by the U.S. federal government and therefore a subject of limited scientific research to date, was legalized for commercial production and recreational use in Alaska in 2014. While the overall health effects of this product require further study, preliminary research indicates that marijuana smoke contains many of the same carcinogens as tobacco smoke, and may present similar health risks.[9] Protecting youth from potentially harmful substances should be a priority, including behaviors which may increase the likelihood that a young person will also begin using tobacco.

Figure 5. Cessation-Related Indicators Among Alaska Adult Smokers, 2013 [10]



Quitting tobacco has many health benefits, and two thirds of Alaska smokers want to quit.[11] Figure 5 illustrates the persistent gap between awareness and achievement of the need to quit, with half of current smokers attempting to quit but only six percent remaining tobacco free. Alaska's Tobacco Quit Line is a free resource for all adults, providing nicotine replacement therapy (NRT), coaching and other resources to support people trying to quit. In 2015, the Quit Line received 2,507 calls and supported 738 people through the SMS-based Text2Quit program.[12]

[7] Alaska Youth Risk Behavior Survey (YRBS), 1995 and 2015.

[8] Schober, W., et al., Use of electronic cigarettes (e-cigarettes) impairs indoor air quality and increases FeNO levels of e-cigarette consumers. *International Journal of Hygiene and Environmental Health*; 217(6):628-3 7 (2014).

[9] Moir D., Rickert W.S., Levasseur G., Larose Y., Maertens R., White P., Desjardins S. A comparison of mainstream and sidestream marijuana and tobacco cigarette smoke produced under two machine smoking conditions. *Chemical Research and Toxicology*, Feb;21(2):494-502 (2008).

[10] Alaska Behavioral Risk Factor Surveillance System (BRFSS), 2013; Alaska Tobacco Prevention and Control Program Quit Line, 2013.

[11] Alaska BRFSS, 2014.

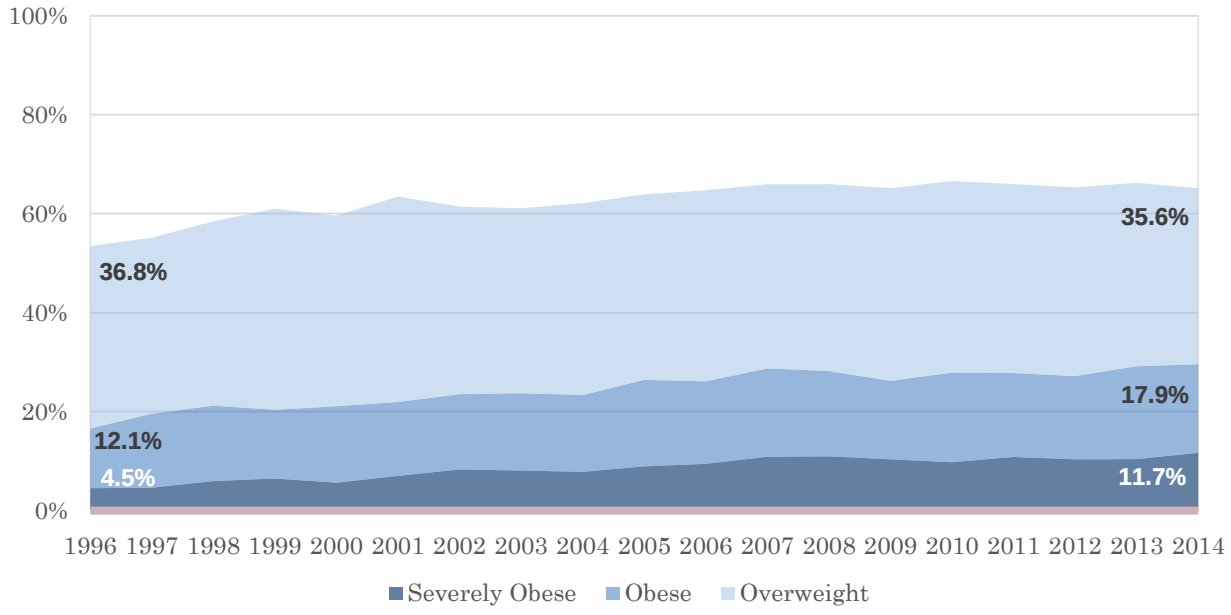
[12] Alaska Department of Health and Social Services, Division of Public Health, Section of Chronic Disease Prevention and Health Promotion, Tobacco Prevention and Control Program, *FY 2015 Annual Report*, April 2016.

In Alaska, 19 percent of current smokers are also cancer survivors (adults who have ever been told by their provider that they have cancer).[13] Tobacco is harmful to all users, but cancer survivors are particularly vulnerable to the negative health effects of smoking. Tobacco use among cancer survivors increases risk of cancer recurrence, development of new cancers, and other health complications during and after treatment, including longer recovery time after surgery, reduced efficacy of medications, and lower quality of daily life.[14] Encouraging tobacco cessation before surgery, during a cancer screening or at the time of cancer diagnosis are also pivotal intervention points for cessation success. Protecting cancer survivors from secondhand smoke exposure should also be a priority, particularly in individuals currently undergoing treatment or otherwise especially vulnerable to environmental health factors.

Obesity and Maintaining a Healthy Weight

Weight status is not a comprehensive measure of health, but can serve as an indicator for nutrition (including calorie intake, fresh food and junk food consumption, sugary drink consumption), regular physical activity, and other behaviors that impact overall health. The most common way to categorize weight status is the Body Mass Index (BMI), the ratio of a person's height and weight. Obesity, overweight, healthy weight and underweight are all defined by BMI thresholds for adults and children: BMI over 25 is considered overweight; over 30, obese; over 35, severely obese. Obesity is correlated with several cancers, including esophageal, pancreatic, colorectal, thyroid and gallbladder cancers.[15] Obesity also increases risk for chronic diseases such as diabetes, heart disease and stroke. Figure 6 shows the increasing prevalence of overweight and obesity in the last two decades, increasing from 53.4 percent in 1996 to 65.1 percent in 2014.

Figure 6. Prevalence of Overweight, Obesity and Severe Obesity among Alaska Adults, 1996-2014 [16]



[13] Alaska BRFSS, 2013; Alaska Quit Line data, 2013.

[14] Centers for Disease Control and Prevention. Surveillance of Demographic Characteristics and Health Behaviors Among Adult Cancer Survivors — Behavioral Risk Factor Surveillance System, United States, 2009. MMWR 2012;61(No. SS-1):1-23.

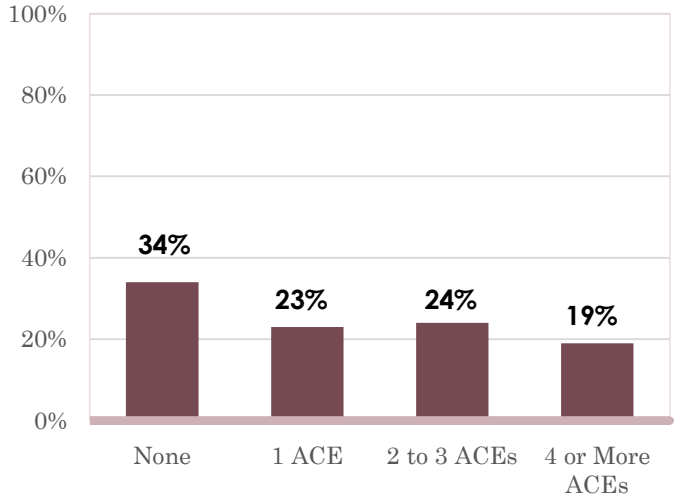
[15] Calle E., Kaaks R. Overweight, obesity and cancer: epidemiological evidence and proposed mechanisms, *Nature Reviews Cancer* 4, 579-591 (August 2004) | doi:10.1038/nrc1408.

[16] Alaska BRFSS, 1996-2014.

Adverse Childhood Experiences (ACEs)

Adverse Childhood Experiences (ACEs) are stressful or traumatic childhood experiences that may negatively impact development and lead to serious health outcomes as an adult. Typically, the higher the ACEs score, the higher the incidence of disease, risky behaviors, and negative social outcomes. ACEs research reveals a strong correlation between exposure to childhood emotional, physical, or sexual abuse, and household dysfunction and health risk behavior and disease in adulthood. Many studies suggest that cancer risk may be influenced by exposure to stressful conditions and events early in life.[18] Figure 7 summarizes the number of ACEs among Alaska adults.

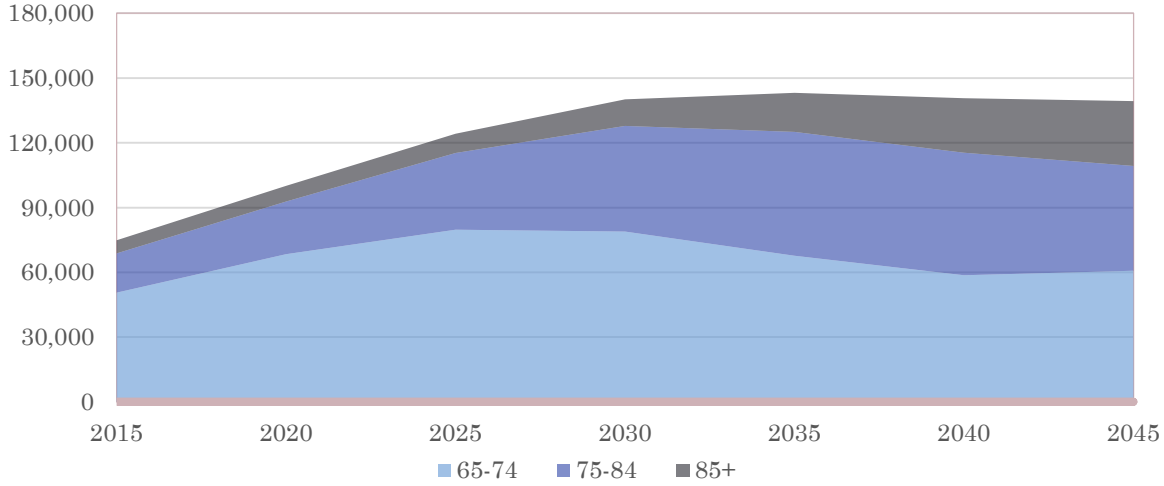
Figure 7. Distribution of Adverse Childhood Experiences (ACEs) in Alaska Adult Population, 2014 [17]



Alaska's Aging Population

Alaska's senior population is growing both in number and as a percentage of the total population. Seniors are living longer, and they are experiencing more chronic conditions. The share of Alaska's population age 65 and older is predicted to almost double in the next decade, increasing from 54,938 (7 percent) to 100,065 (13 percent) between 2010 and 2020.[19] The senior population bubble is expected to peak around 2032, though the 85 and older cohort will continue to grow, as shown in Figure 8.

Figure 8. Projected Growth of Alaska's Population Age 65 and Older, 2015 to 2045 [20]



[17] Alaska BRFSS, 2014.

[18] Brown, M. J., Thacker, L. R., & Cohen, S. A. Association between Adverse Childhood Experiences and Diagnosis of Cancer. *PLoS ONE*, 8(6), e65524 (2013). http://doi.org/10.1371/journal.pone.0065524.

[19] U.S. Census Bureau 2010 Decennial Census, Alaska Department of Labor and Workforce Development, Research and Analysis Section, 2015-2045 Population Projections.

[20] Alaska Department of Labor and Workforce Development, 2015 Population Estimates.

Cancer is caused by changes to genes that control the cell function, especially how cells grow and divide. With increased lifespan come more opportunities for genetic changes to occur in the body.[21] Almost 60 percent of all new cancers and 70 percent of cancer-related deaths impact those 65 years and older.[22] As Alaskans continue to live longer, more adults will experience cancer and other chronic diseases and continue to live with these conditions as they age.

Healthy Choices

For cancer survivors and all Alaskans, making healthy choices can help prevent and manage chronic disease, including cancer, during and after treatment. By not using tobacco, maintaining a healthy weight, exercising regularly and eating a healthy diet, a person can reduce the risk of developing some chronic diseases by up to 80 percent.[23] Recent research suggests that healthy behaviors can also reduce the risk of developing many types of cancer, including lung, colorectal and bladder cancers.[24] Figure 9 shares eight healthy choices to reduce risk for chronic diseases and improve long-term health.

Figure 9. Choose to Stay Healthy!

Cancer Incidence and Mortality

Understanding cancer's impact on the population requires close interpretation of available data. The overall cancer incidence rate (number of new cases diagnosed per 100,000 population) has generally decreased nationally and in Alaska over the last decade, with an average annual decrease of 2.7 percent over the most five years of available data (2009 to 2013). Similarly, cancer mortality (cancer-related deaths per 100,000 population) has decreased an average of three percent annually.

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[21] National Institute on Aging, Health & Aging, http://www.nia.nih.gov.

[22] Berger, N. et al. Cancer in the Elderly. *Transactions of the American Clinical and Climatological Association* 117 (2006): 147–156.

[23] Ford E.S., Bergmann M.M., Kroger J., Schienkiewitz A., Weikert C., Boeing H., "Healthy living is the best revenge." Findings from the European Prospective Investigation into Cancer and Nutrition, Potsdam Study. Arch Intern Med 2009, 169(15):1355-1362.

[24] Song M., Giovannucci E. Preventable Incidence and Mortality of Carcinoma Associated With Lifestyle Factors Among White Adults in the United States. JAMA Oncol. Published online May 19, 2016. doi:10.1001/jamaoncol.2016.0843.

Figure 10 and Figure 11 illustrate incidence and mortality, respectively, of the most commonly diagnosed cancers, as well as cervical cancer, which is highly preventable through regular screening and by vaccinating against HPV. The charts compare Alaska and U.S. rates in both incidence and mortality. Alaska's population-level trends are similar to the national average, with a lower incidence of prostate cancer and higher incidence of colorectal cancer, and slightly higher mortality due to lung cancer. The four most common cancers (breast, lung, prostate and colorectal) together account for half of all cancer-related deaths.

Figure 10. Cancer Incidence Rate, Age-Adjusted, Annual Average in Alaska and U.S., 2009-2013 [25]

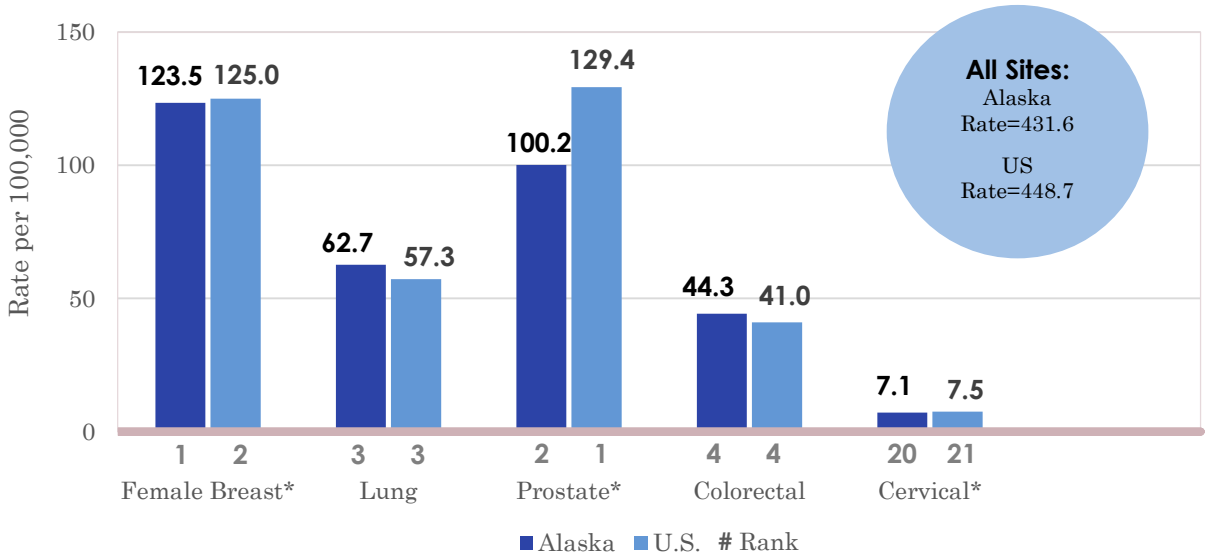
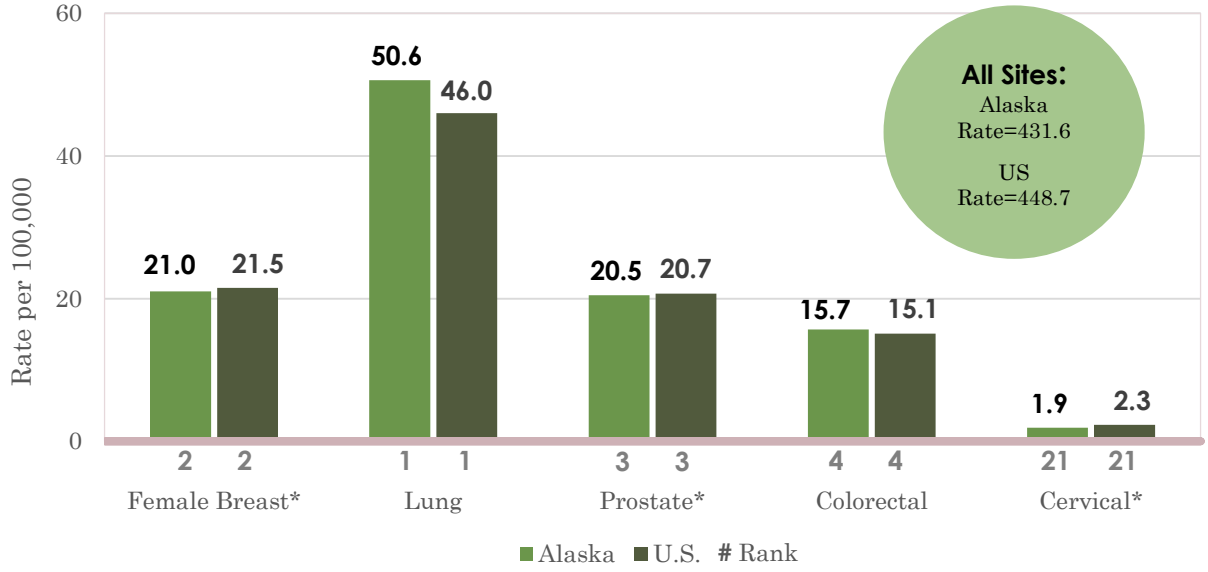


Figure 11. Cancer Mortality Rate, Age-Adjusted, Annual Average in Alaska and U.S., 2009-2013 [26]



*Prostate rate is per 100,000 men. Both Cervical and Female Breast rate is per 100,000 women.

[25] Alaska Cancer Registry, 2009-2013; U.S. SEER 2009-2013.

[26] Alaska Cancer Registry, 2009-2013; U.S. CDC-NCHS 2009-2013.

Figure 12 and Figure 13 illustrate the trends for incidence and mortality, respectively, as well as the Healthy Alaskans 2020 goal for cancer mortality.

Figure 12. Trend of Cancer Incidence Rate in Alaska, Age-Adjusted, 1996-2013 [27]

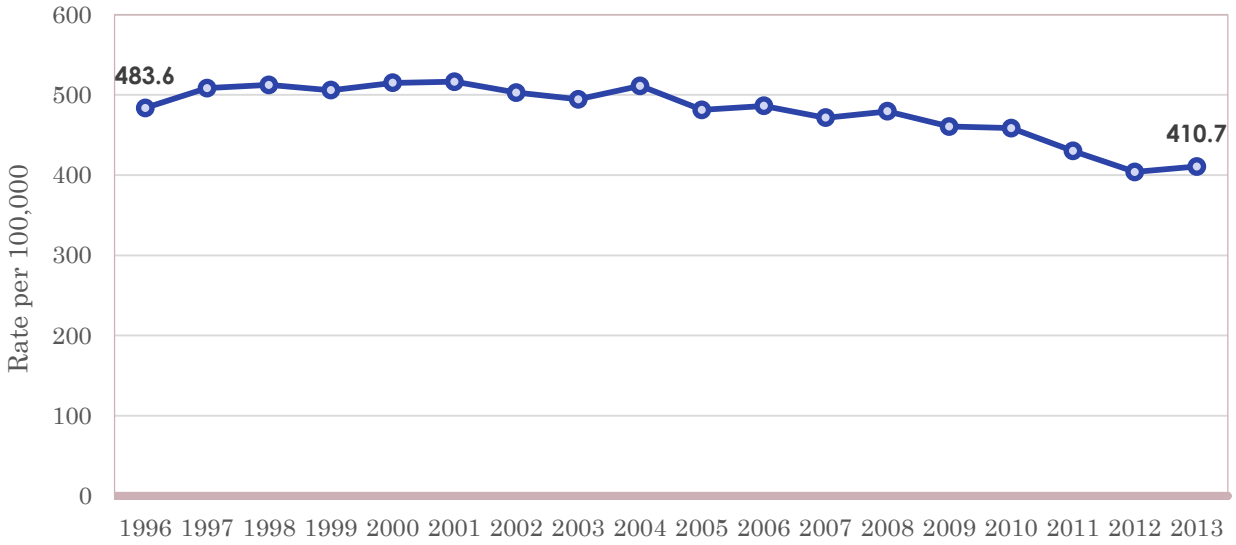
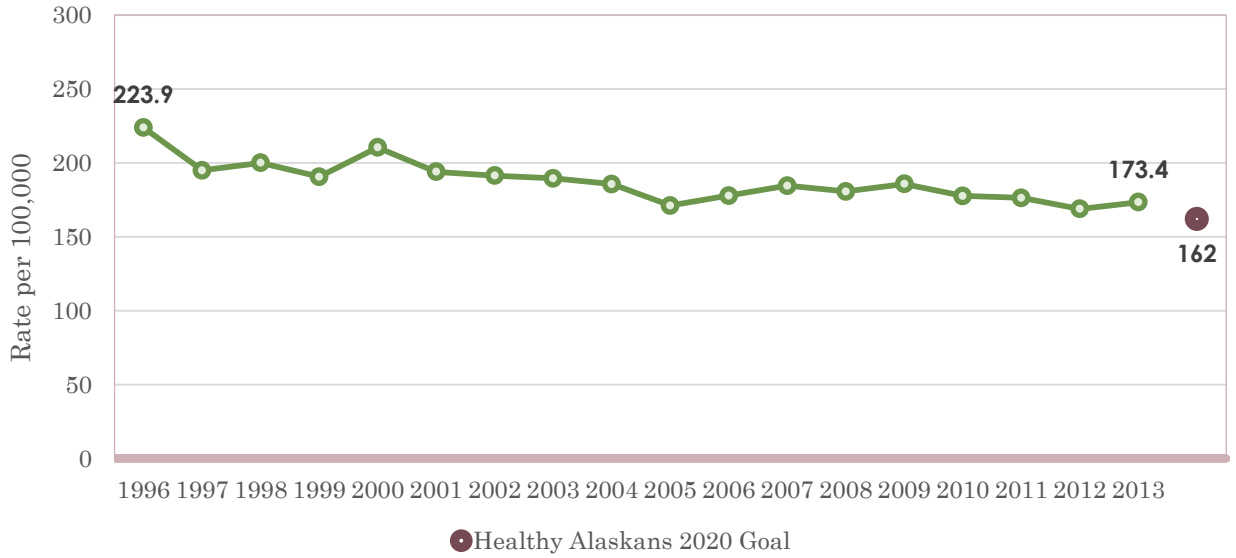


Figure 13. Trend of Cancer Mortality Rate in Alaska, Age-Adjusted, 1996-2013 [28]



While declining *rates* of incidence and mortality are positive trends, the decline obscures the fact that the *number* of new cancer cases is increasing each year, resulting in more cancer survivors in our population, particularly as our population continues to age. Survivors are living longer and have ongoing risk of reoccurring and new cancer diagnoses, resulting in an increasing cancer burden in our total population in Alaska and nationally.[29]

[27] Alaska Cancer Registry, 1996-2013.

[28] Ibid.

[29] American Cancer Society. *Cancer Facts & Figures 2016*. Atlanta: American Cancer Society, 2016.

The overall population data also obscure specific trends in the cancer burden for some populations, notably Alaska Native People, who comprise 15 percent of the state's population and have statistically significant differences in the risk and outcomes for certain cancers.[31] The incidence rates of lung, colorectal, stomach, and kidney and renal pelvic cancer are higher among Alaska Native People than Alaska Whites. Alaska Native People also have a higher mortality rate from lung, colorectal, stomach and prostate cancer than Alaska Whites. Figure 15 and Figure 16 illustrate disparities for Alaska Native People in the incidence and mortality rates for selected cancers. Figure 17 and Figure 18 depict differences in the same populations' rates over time, with a declining trend rate in both the cancer incidence and mortality rates overall, but a flat trend among Alaska Native People in both measures.

Figure 14. Alaska Population by Race, 2014 [30]

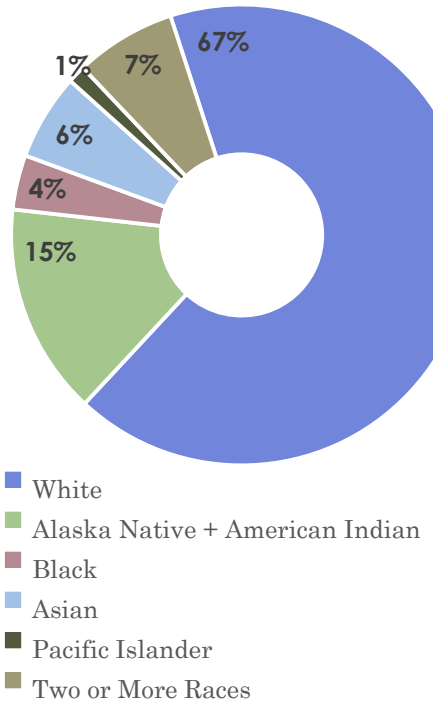
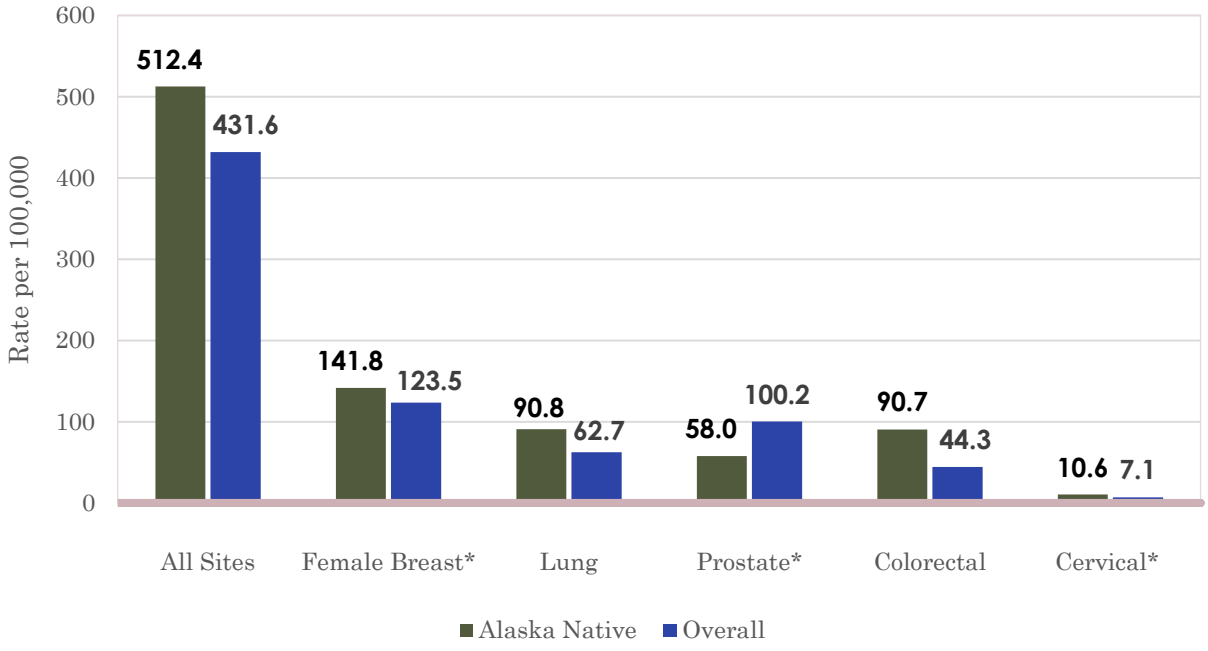


Figure 15. Cancer Incidence Rate, Age-Adjusted, in Alaska Native People and Alaska Overall Population, 2009-2013 [32]



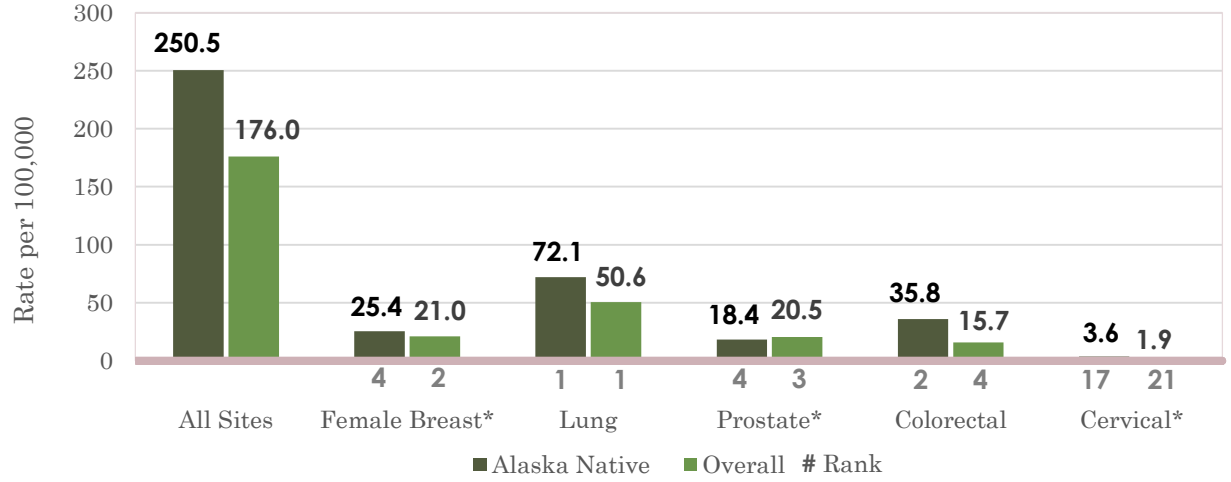
*Prostate rate is per 100,000 men. Both Cervical and Female Breast rate is per 100,000 women.

[30] Alaska Department of Labor and Workforce Development, 2014.

[31] Alaska Department of Labor and Workforce Development, July 2014 population estimate. Alaska Native population estimate includes individuals who identify as two or more races; 15% of the population identifies as Alaska Native alone.

[32] Alaska Cancer Registry, 2009-2013.

Figure 16. Cancer Mortality Rate, Age-Adjusted, in Alaska Native People and Alaska Overall Population, 2009-2013



* Prostate rate is per 100,000 men. Both Cervical and Female Breast rate is per 100,000 women.

Figure 17. Comparing Cancer Incidence Rate, Age-Adjusted, in Alaska Native People and Overall Population, 2000-2013

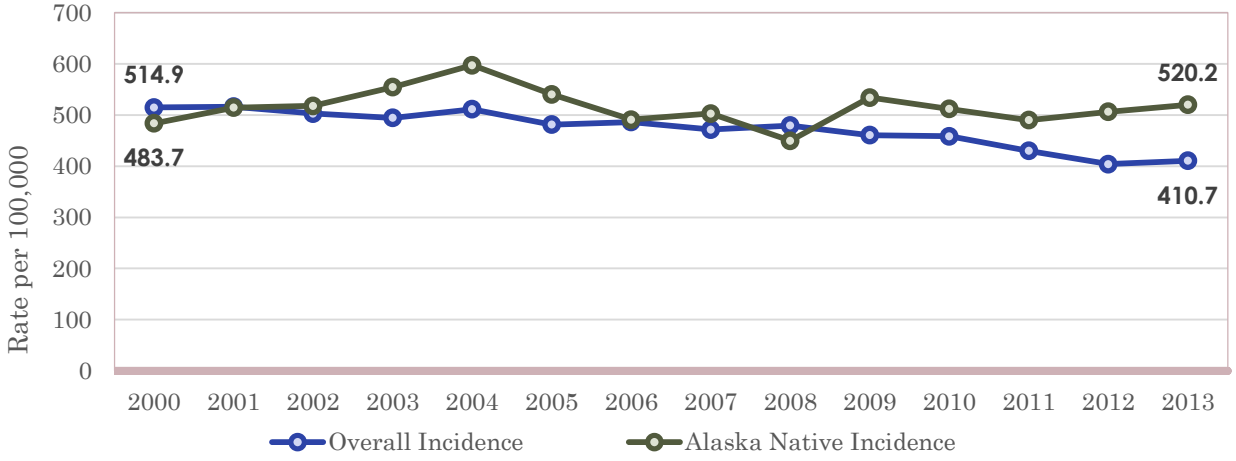
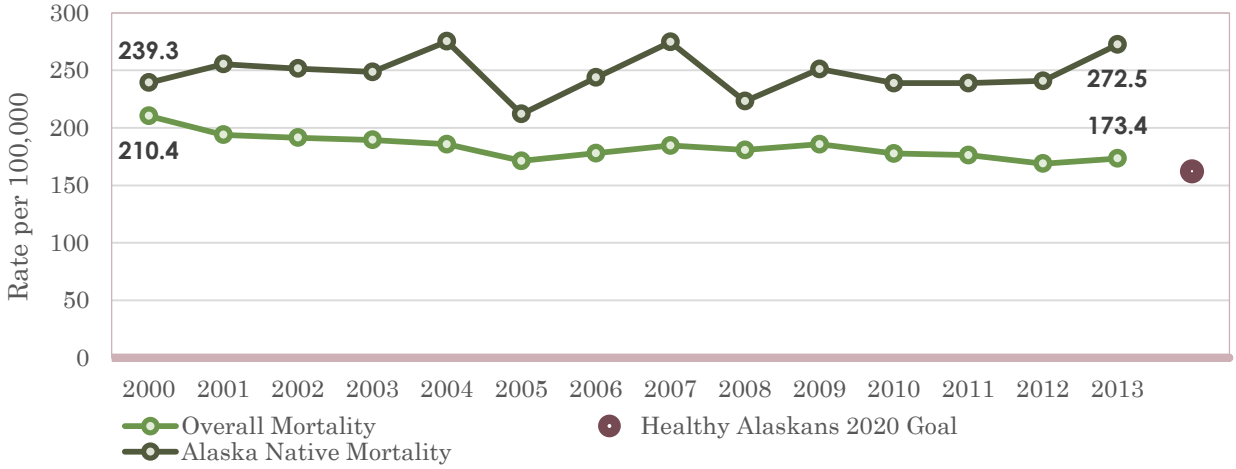


Figure 18. Comparing Cancer Mortality Rate, Age-Adjusted, in Alaska Native People and Overall Population, 2000-2013 [33]



[33] Figures 16, 17 and 18: Alaska Cancer Registry, 2009-2013 and 2000-2013.

Promoting Health in All Populations

Alaska has long been home to a diverse population, from the Alaska Native Peoples who have inhabited the land for thousands of years, to immigrants, refugees and recent arrivals to the country and the state. Additionally, many individuals are identified as belonging to specific populations or communities who may be particularly susceptible to certain types of cancer, or have other health risks or concerns that may complicate effective treatment and survivorship.

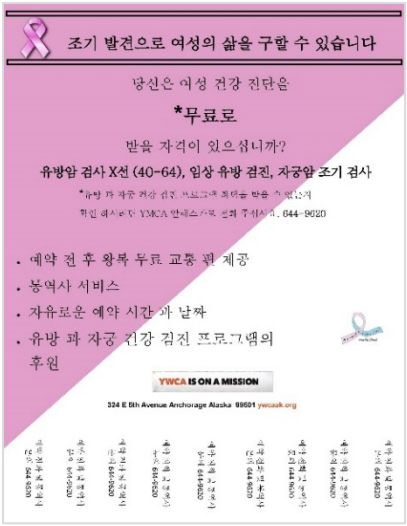
These populations include:

- Alaska Native Peoples
- LGBTQ (Lesbian, Gay, Bisexual, Transgender and Queer)
- People living with disabilities
- People of low socioeconomic status (SES)
- Immigrant, refugee and other ethnic minority populations
- Incarcerated and returning citizens

In addition to acknowledging increased risk for certain types of cancer within some populations, it is important to recognize systemic barriers for these populations in prevention, screening and early detection, treatment, and maintaining health in the long term. Some groups, including those identified above, may face additional barriers to health care access and information. Where possible, it is important to review existing processes for these unintended biases, and strive for focused outreach or additional support to these populations to increase access to health care before, during and after diagnosis. Examples of strategies to promote better access:

- Broaden cross-cultural outreach and engagement by connecting with diverse communities, empowering more people to access needed health care, and supporting advocates and health educators in diverse communities.
- Conduct health fairs and screening events at community locations, such as cultural centers, schools, faith communities and in partnership with other events reaching specific populations, such as cultural festivals, youth events and neighborhood gatherings.
- Educate health care and service providers about issues that more highly affect certain populations such as higher rates of tobacco use, genetic susceptibilities, historical and intergenerational trauma, and legal and social barriers to housing, employment and services.
- Produce materials that are culturally appropriate for many populations, including translations to other languages and images that resonate in other cultures (Figure 19).
- Promote better access to medical care through navigation services, enrollment in health insurance, and expanded options to see providers (e.g., evening and weekend hours).
- Connect survivors and their loved ones with culturally appropriate resources such as peer support groups, educational materials, and treatment alternatives.

Figure 19. Broadening Access and Outreach: Korean-language outreach material[34]



[34] Image courtesy of YWCA Alaska, 2016.

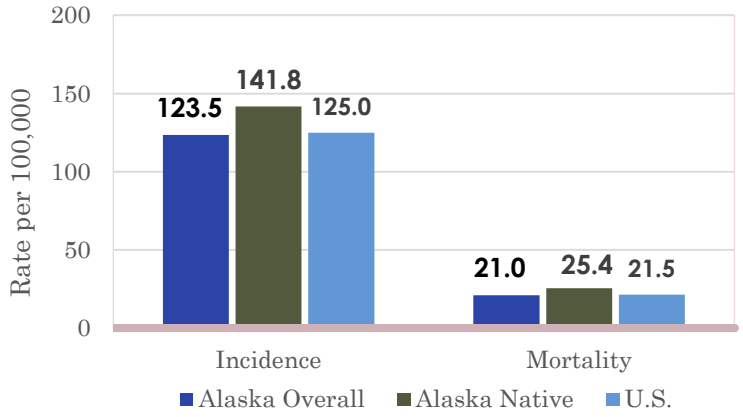
Leading Cancers, Prevention and Early Detection

There are many forms of cancer, and some are easier to diagnose, treat and manage when found early. This section provides several profiles of Alaska's leading cancers, as well as recommendations for prevention and early detection that can help reduce Alaska's cancer burden and improve health.

Breast Cancer

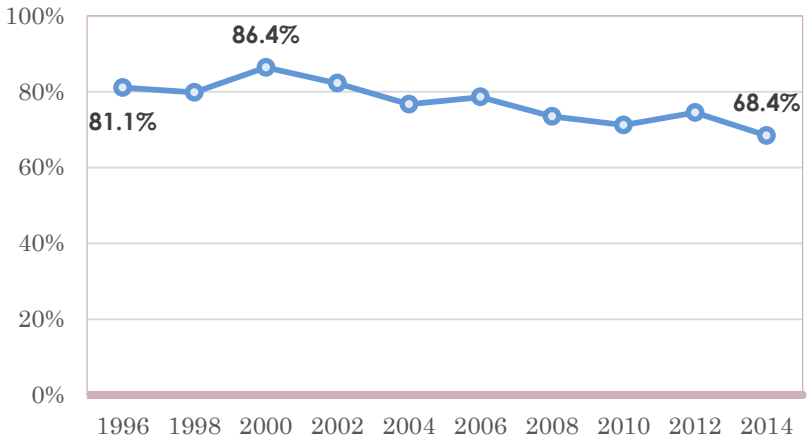
Breast cancer in women is currently the most common form of cancer in Alaska, surpassing prostate cancer in the last decade. Breast cancer typically produces no symptoms when the tumor is small and at its most treatable. It is very important for women to follow recommended screening guidelines for detecting breast cancer at an early stage. While some individuals are at higher risk for developing certain types of breast cancer, 70 percent of all women diagnosed with breast cancer had no known risk before the time of diagnosis. Mammography is the most effective means of detection for early breast cancer diagnosis, as well as a clinical breast exam by a health care provider. Figure 20 compares breast cancer in Alaska, Alaska Native People and the U.S.

Figure 20. Female Breast Cancer Incidence and Mortality, Age-Adjusted, in Alaska, Alaska Native People and U.S., 2009-2013 [35]



Alaska ranks 35th in the U.S. for breast cancer screening rates, and the rate of women age 50 to 74 receiving mammograms has declined in the last twenty years (Figure 21).[36] Lower screening rates are more common among women with lower levels of income and educational attainment.

Figure 21. Women 50-74 with Mammography in Past Two Years in Alaska, 1996-2014 [37]



Breast Cancer Screening Recommendation from the U.S. Preventive Services Task Force

Women age 50 to 74 years old should get a mammogram every two years.

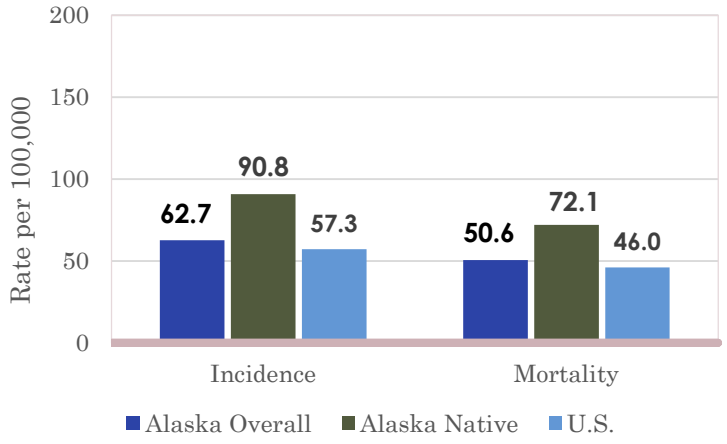
[35] Alaska Cancer Registry, 2009-2013; U.S. SEER 2009-2013; U.S. CDC-NCHS 2009-2013.
[36] Alaska BRFSS, 2000-2014.
[37] Ibid., 1996-2014.

Alaska has five CDC-funded Breast and Cervical Cancer Early Detection Programs (BCCEDP) that work to increase access to screening and detection for women who are uninsured or underinsured.[38] Since 1995, this program has provided more than 78,000 breast and cervical cancer screenings to over 26,000 medically underserved Alaska women. The five locations are: Southeast Alaska Regional Health Consortium (SEARHC) in Sitka, Southcentral Foundation in Anchorage, Arctic Slope Native Association (ASNA) in Barrow, and the Yukon-Kuskokwim Health Corporation (YKHC) in Bethel.

Tobacco Use, Lung Cancer and Related Cancers

Lung cancer is the leading cause of cancer death in the U.S., and cigarette smoking causes the majority of lung cancers. Smoking causes about 90 percent of lung cancer deaths in men and almost 80 percent in women. Compared to non-smokers, men who smoke are 23 times more likely, and women who smoke are 13 times more likely, to develop lung cancer. For smoking attributable cancers, the risk generally increases with the number of cigarettes smoked and the number of years of smoking. The risk of developing cancer decreases after quitting, though it may take years to substantially decrease. Secondhand smoke can also pose significant risk of developing cancer, even for non-smokers. Protecting Alaskans against secondhand smoke exposure by enacting clean indoor air policies is a best practice.

Figure 22. Lung Cancer Incidence and Mortality, Age-Adjusted, in Alaska, Alaska Native People and U.S., 2009-2013 [39]



While Alaska historically had substantially higher incidence of lung cancer than the U.S. overall, it has dropped to at or below the national average, from 79.5 per 100,000 in 1996 to 54.7 in 2013. Figure 22 illustrates the disparity between Alaska Native People and Alaskans overall in incidence and mortality of lung cancer, correlated in part to higher rates of tobacco use among Alaska Native People compared to the general population.

While in the past there was no early detection method for lung cancer, spiral computerized tomography (CT) is a promising method for detection of tumors in lung tissue. CT scan images may provide information about the location, size and shape of the tumor.

Another tobacco-related cancer that disproportionately affects Alaska Native People is oral cancer, correlated with smoking as well as use of smokeless tobacco such as chewing tobacco and *Iqmik*, a homemade combination of leaf tobacco and ashes from collected fungi or wood, most common in western and southwest Alaska. Many adults at risk of developing oral

Lung Cancer Screening Recommendation from the U.S. Preventive Services Task Force

Annual screening for adults age 55 to 80 years old who have a 30 pack-year smoking history and currently smoke or previously smoked within the past 15 years. Discontinue screening once a person has not smoked for 15 years.

[38] The program is also known as the Breast and Cervical Health Check (BCHC) program.

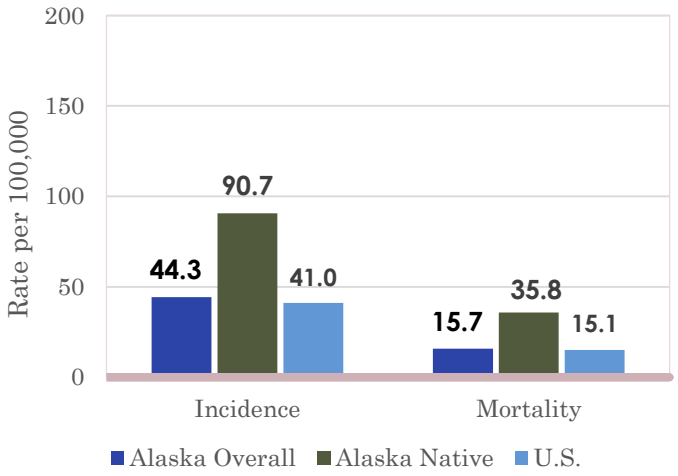
[39] Alaska Cancer Registry, 2009-2013; U.S. SEER 2009-2013; U.S. CDC-NCHS 2009-2013.

cancer do not routinely have access to dental care. In 2014, only 64% of adults had received a routine dental exam in the last year.[40] Training medical and other health professionals to conduct oral exams during non-dental care visits is an important strategy for early detection of oral cancer. Public knowledge about oral cancer and self-exams is limited and individuals delay professional advice even when they become aware of a lesion.

Colorectal Cancer

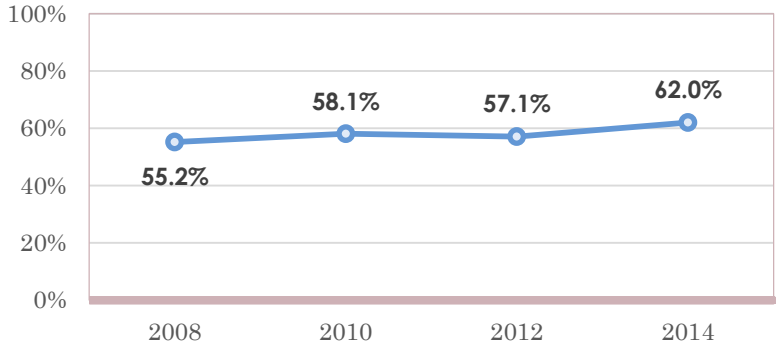
Colorectal cancer is an almost entirely preventable disease. In its early stages, colorectal cancer causes no or few symptoms but it is one of the few cancers which can be prevented through screening: adenomatous polyps, from which colon cancers develop, can be identified early and removed. Survival rates are as high as 90percent when colorectal cancer is detected at an early stage. Risk factors include obesity, alcohol use, tobacco use, and poor nutrition.

Figure 23. Colorectal Cancer Incidence and Mortality, Age-Adjusted, in Alaska, Alaska Native People and U.S., 2009-2013 [41]



Colorectal cancer is the fourth most commonly diagnosed cancer and third-highest cause for cancer deaths for Alaskans. Incidence and mortality rates are more than twice as high in the Alaska Native population, as shown in Figure 23. The Alaska Native Tribal Health Consortium Cancer Control Program has made addressing colorectal cancer a priority among Alaska Native People.

Figure 24. Adults 50-75 Who Completed Recommended Colorectal Screenings, 2008-2014 [42]



In 2004, 51 percent of all Alaskans and 50 percent of Alaska Native People over age 50 reported having had colorectal screening by either sigmoidoscopy or colonoscopy. Since 2008, the Alaska BRFSS adjusted its survey to measure against current screening recommendations: adults 50 through 75 years of age who report having a fecal occult blood test (FOBT) within 1 year,

Colorectal Cancer Screening Recommendation from the U.S. Preventive Services Task Force

Adults age 50 to 75, Alaska Native adults age 40 or older, African American adults age 45 or older: screen using high-sensitivity fecal occult blood testing (FOBT) annually, sigmoid-oscopy every 5 years, or colonoscopy every 10 years.

[40] Alaska BRFSS, 2014.
[41] Alaska Cancer Registry, 2009-2013; U.S. SEER 2009-2013; U.S. CDC-NCHS 2009-2013.
[42] Alaska BRFSS, 2014.

or a sigmoidoscopy within the 5 years and with an FOBT within 3 years, or a colonoscopy within the past 10 years. An FOBT is a home-based test that detects the presence of blood in stool, signaling possible need for further testing. Flexible sigmoidoscopy and colonoscopy are performed by physicians, who are generally only available at the tertiary care centers and intermittently at regional hubs in Alaska, requiring significant travel for residents of rural areas to receive these types of screening.

Figure 24 indicates an increase over time in the screening rates among Alaska adults. The State of Alaska and the Alaska Native Tribal Health Consortium have worked to improve screening rates and improve early detection of colorectal cancer through the Alaska Colorectal Cancer (CRC) Partnership, particularly for Alaska Native People who continue to be disparately impacted by this cancer.

HPV, Cervical Cancer and Related Cancers

Cervical cancer is primarily caused by infection with certain types of the Human Papillomavirus (HPV). HPV has also been linked to oral, head and neck cancers in men and women (Figure 25).[44] HPV is transmitted sexually and present in both men and women; vaccination prior to an individual's initiation of sexual activity can significantly limit the spread of the virus. The incidence rates for cervical cancer in Alaska remain low, but vaccination of adolescents and early detection in adults can be life-saving by avoiding cases of cervical, head and neck cancers. Figure 26 depicts current vaccination rates.

An HPV vaccine was approved in June 2006 by the U.S. Food and Drug Administration (FDA) and has since been shown very effective in preventing cervical cancer caused by two specific HPV types. Currently the Advisory Committee on Immunization Practices (ACIP) recommends that the HPV vaccine series, which includes additional strains of HPV, be routinely administered to all adolescents, boys and girls, 11 to 12 years of age.

Figure 25. Cancers Caused by HPV in Alaska, 2004-2013 [43]

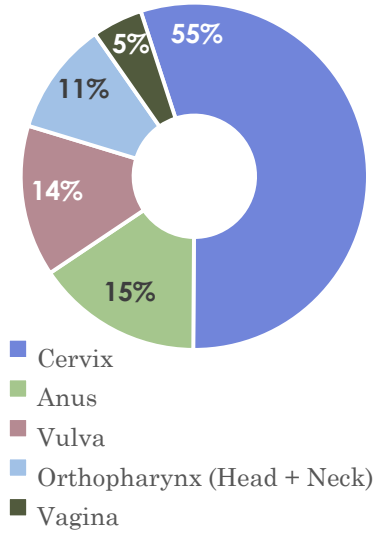
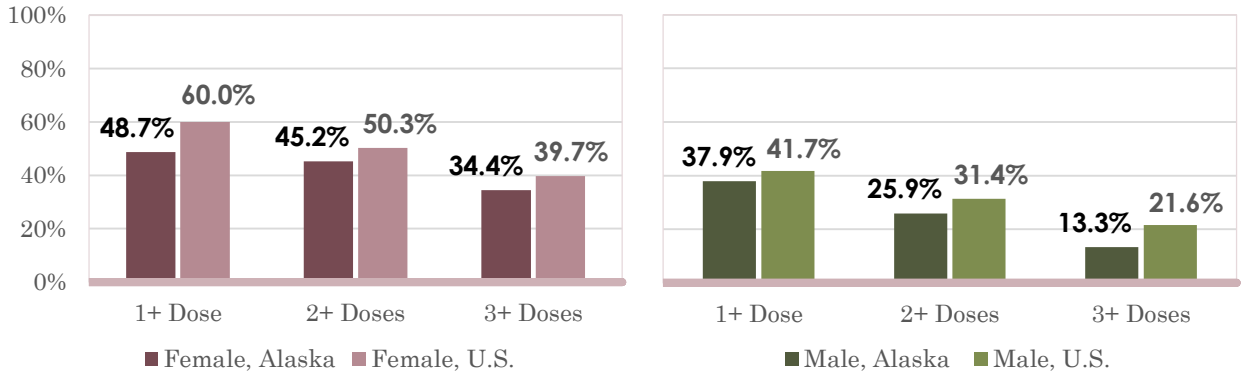


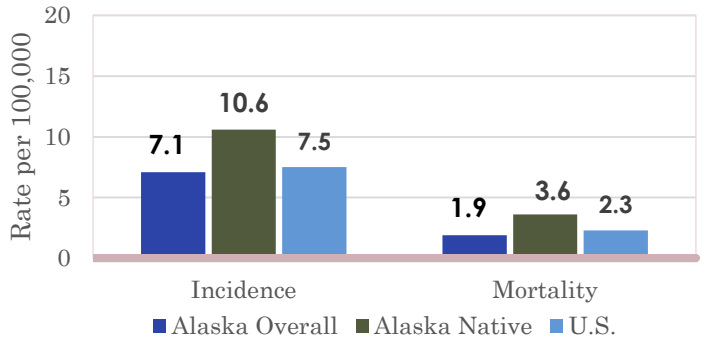
Figure 26. HPV Vaccination Rates of Female and Male Adolescents, Alaska and U.S., 2014 [45]



[43] Alaska Cancer Registry, 2004-2013.
[44] Syrjänen, S. The role of human papillomavirus infection in head and neck cancers. *Annals of Oncology* (2010) 21 (suppl 7): vii243-vii245. doi: 10.1093/annonc/mdq454.
[45] Alaska VacTrAK reporting database, 2014; Reagan-Steiner, et al. National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years, United States, 2014, CDC MMWR Weekly July 31, 2015 / 64(29);784-792.

The success of low cervical cancer rates (Figure 27) is related to the higher rates of screening that occur through the five BCCEDPs providing services in Alaska, as well as intensive screening throughout the Alaska Native Health System.

Figure 27. Cervical Cancer Incidence and Mortality, Age-Adjusted, in Alaska Overall, Alaska Native People and U.S.[46]

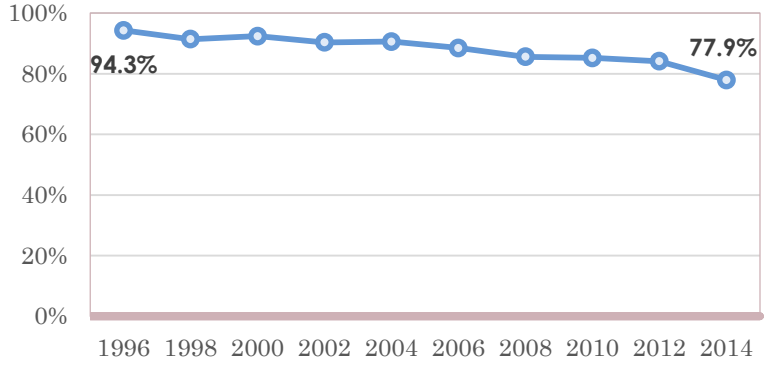


HPV Vaccination Recommendation from the Advisory Committee on Immunization Practices

All adolescents, boys and girls, age 11 and 12 receive HPV vaccination series.

Women age 21 to 65 should receive a Pap test (cervical cytology) at least every three years to increase early detection and reduce incidence of cervical cancer. However, as with screenings for breast cancer, cervical screenings have declined in the last decade (Figure 28).

Figure 28. Women 21-65 who received Pap test (Cervical Cytology) in Past 3 Years, 1996-2014 [47]



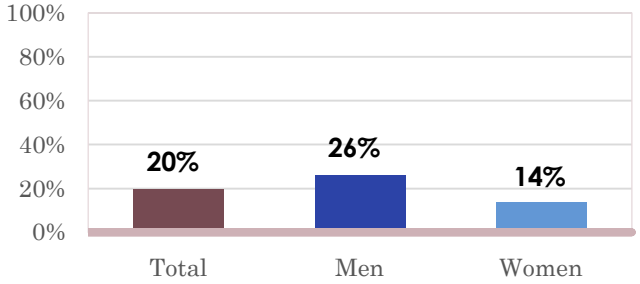
Cervical Cancer Screening Recommendation from the U.S. Preventive Services Task Force

Women age 21 to 65 years old should get a Pap test (cervical cytology) at least every three years.

Liver Cancer

Cancers that start in the liver are called liver cancer (primary liver cancer). The most common liver cancer is hepatocellular carcinoma, which occurs in the tissue of the liver. Men have a threefold higher liver cancer rate than women.[49] Overall, liver cancer incidence rates are highest among non-Hispanic American Indian/Alaska Native People, followed by non-Hispanic Asian/ Pacific Islanders and Hispanics.

Figure 29. Binge Drinking among Alaska Adults, 2014 [48]



[46] Alaska Cancer Registry, 2009-2013; U.S. SEER 2009-2013; U.S. CDC-NCHS 2009-2013.

[47] Alaska BRFSS, 1996-2014.

[48] Ibid, 2014.

[49] Ryerson AB, et al. Annual report to the nation on status of cancer, 1975–2012, featuring increasing incidence of liver cancer. *Cancer* (2016).

Studies have found the following risk factors for liver cancer:

- Infection with Hepatitis B virus (HBV) or Hepatitis C virus (HCV), including possible infection related to any level of intravenous drug use, including past one-time use
- Binge drinking
- Cirrhosis or scarring of the liver
- Obesity and diabetes

The current Hepatitis C screening recommendation includes middle-age and older adults. Recent Alaska data also show a parallel to the current national trend of HCV-infected persons increasing in young adults with a history of intravenous drug use, a population at greater risk who should also seek screening.[50]

Hepatitis C Screening Recommendation from the U.S. Preventive Services Task Force

Adults at high risk for HCV infection should be screened. All adults born between 1945 and 1965 should receive one-time HCV screening.

Heavy alcohol use has significant long-term impacts on liver function. Binge drinking can cause cirrhosis of the liver and may lead to liver cancer. Binge drinking is defined as having five or more drinks on a single occasion for men, or at least four drinks for women. Patterns of alcohol use among Alaska adults vary by age and region, but binge drinking is much more common in men, as shown in Figure 29.

[50] Mori, K and Provo, G. Increase in Hepatitis C Cases among Young Adults: Alaska, 2011–2015. State of Alaska Epidemiology Bulletin. August 25, 2016, no. 19.

Goal 1: Educate the public, providers, payers, and policymakers about cancer and its impact on Alaskans.

Objective 1.1: Broaden meaningful engagement in cancer control among the full diversity of gender, age, cultural, religious and linguistic groups in Alaska by investing in focused outreach and health education.

Strategy 1. Continue to broaden and deepen partnerships with Alaska organizations: Conduct a gap analysis of partnerships and engage with unrepresented groups.

Strategy 2. Customize outreach for specific cultural, religious and linguistic groups including Asian and Pacific Rim cultures, Pacific Island communities, people who are refugees and others with limited access to health promotion and health care.

Strategy 3. Focus outreach on caregivers and family members of cancer survivors.

Strategy 4. Identify other groups for outreach who are at higher risk for developing cancer, including people with diabetes and other chronic diseases, people with behavioral health issues and tobacco users.

Strategy 5. Increase health promotion in small, rural communities, particularly those with low cancer screening rates.

Strategy 6. Assess the feasibility with the redesign and expansion of Alaska's Medicaid program of developing Community Health Educators and peer workers who are connected to local communities and can provide effective health promotion and prevention.

Strategy 7. Expand outreach to people who are in prison, those living in institutions and those engaged in reentry programs and supported living environments.

Partnerships formed with organizations representing priority groups for health promotion and outreach.

Baseline (2016)	**3**
2020 Goal	**10**

Source: ACCP Survey

Community Health Educators and peer educators working in key communities.

Baseline	**Unknown**
2020 Goal	**Unknown**

Source: ACCP Survey

Goal 1: Educate the public, providers, payers and policymakers about cancer and its impact on Alaskans.

Objective 1.2: Increase engagement with primary care providers.

Strategy 1. Work with Federally Qualified Health Centers to include a system for ensuring early detection screenings, case management, and patient reminders systems.

Strategy 2. Increase screening for tobacco use and cessation support in primary care settings.

Strategy 3. Provide support for continuing medical education related to ongoing primary care for cancer survivors, following the end of treatment.

Partnerships formed with Federally Qualified Health Centers.

Baseline (2015)	**6**
2020 Goal	**29**

Source: ACCP Records

Adults screened for tobacco use and referred to cessation support.

Baseline	**Unknown**
2020 Goal	**Unknown**

Source: UDS Data

Objective 1.3: Increase health promotion activities related to Healthy Eating, Active Living (HEAL) to prevent cancer, promote wellness during cancer treatment and prevent recurrence of cancer.

Strategy 1. Increase public education on the connection between cancer and obesity, and the preventative and protective value of good nutrition and regular physical activity.

Strategy 2. Increase physical activity among Elders, older Alaskans and youth through fun social activities such as Zumba, Tai Chi and Yoga and group weight loss challenges such as "Lose to Win."

Strategy 3. Support community cancer events such as Relay for Life and survivorship events to promote health fairs, wellness and cancer prevention activities across Alaska.

Strategy 4. Educate communities about local subsistence plants and foods that are protective against cancer and other healthy foods and activities.

Strategy 5. Educate families and Elders about low cost healthy food preparation.

Cancer and the Affordable Care Act

The implementation of the Patient Protection and Affordable Care Act, commonly referred to as the Affordable Care Act (ACA) in 2010, made significant changes to the health care landscape. The ACA notably banned health plans from setting lifetime dollar limits on coverage, ensured immediate coverage for people in every state who have been uninsured for six months or more and have cancer or another pre-existing condition, and prohibited health plans from denying coverage to children up to age 19 with pre-existing conditions. These much-needed improvements, along with many policy changes to the insurance industry, have increased accessibility and treatment options for many people who previously had limited access to healthcare coverage. As of June 2016, Alaska is one of 26 states (and the District of Columbia) that have expanded eligibility for Medicaid under the ACA. Future refinements or possible replacements of ACA should build on these gains.

Goal 1: Educate the public, providers, payers and policymakers about cancer and its impact on Alaskans.

Objective 1.4: Continue to monitor the development of stricter indoor tanning rules and regulations by the Food and Drug Administration and educate the public about associated health risks.

Strategy 1. Increase public education on the health risks associated with indoor tanning, particularly the increased risk of developing melanoma.

Strategy 2. Focus outreach and education to parents and schools to educate children and teens about the health risks associated with indoor tanning, particularly the lifetime effects of increased exposure to ultraviolet radiation.

Media campaigns to educate about the health risks associated with indoor tanning.

Baseline (2015)	**0**
2020 Goal	**2**

Source: ACCP Survey

Penny Palmquist, Breast Cancer Survivor

Penny's breast cancer journey began in 1963 when her mother was diagnosed with breast cancer, which was treated with radical mastectomy. In 1965 a cancerous lymph node was removed and was followed with radiation treatment. In early 1966 she died before reaching her 44th birthday.

After a routine mammogram in 2004, followed by a biopsy, Penny was diagnosed with Stage 1, ILC (Invasive Lobular Cancer). The treatment was lumpectomy surgery, followed by 36 radiation treatments, six months of Herceptin and five years of the aromatase inhibitor Arimidex.

Penny is now a 12-year survivor, and has become an advocate for those with breast cancer. Through the American Cancer Society, she volunteers with the Cancer Action Network, Making Strides Against Breast Cancer, and Reach to Recovery.

Penny is a trained advocate through the National Breast Cancer Coalition (NBCC). NBCC works to promote finding a preventative vaccine to end breast cancer. For the last six years she has traveled annually to Washington, D.C. to meet with researchers and other advocates to learn about the latest research, and to lobby Congress to help fund that research.

Penny is a 2015 graduate of the NBCC Project LEAD Academy: "My goal is to become a peer reviewer on breast cancer research. This would allow me to give input to their research from a survivor's perspective."

Goal 2: Prevent cancer from occurring.

Objective 2.1: Reduce the impact of tobacco and inhaled marijuana use and exposure on Alaska's cancer incidence and mortality.

Strategy 1. Support the goals and activities of Alaska's Tobacco Prevention and Control Program and the Alaska Tobacco Control Alliance.

Strategy 2. Support efforts to provide education on health risks associated with exposure to secondhand smoke in workplaces.

Strategy 3. Monitor the development of regulations for marijuana use in Alaska, in order to reduce use and exposure among young people.

Strategy 4. Educate the public about the health effects from e-cigarette use, particularly among young people.

Percentage of adults who do not smoke.

Baseline (2014)	**79.7%**
2020 Goal	**83%**

Source: Alaska BRFSS

Percentage of high school students who do not use tobacco (includes cigarettes, cigars, and smokeless tobacco). Met. Continue to monitor

Baseline (2015)	**81.6%**
2020 Goal	**80%**

Source: Alaska YRBS

Current tobacco use among cancer survivors.

Baseline (2014)	**18%**
2020 Goal	**15%**

Source: Alaska BRFSS

Current youth e-cigarette use.

Baseline (2015)	**17.7%**
2020 Goal	**Unknown**

Source: Alaska YRBS

Goal 2: Prevent cancer from occurring.

Objective 2.2: Reduce the impact of poor nutrition, physical inactivity and the increasing obesity rates on Alaska's cancer incidence and mortality.

Strategy 1. Educate and advocate for the removal of soda vending machines from schools and replacing with water and 100% juice products.

Strategy 2. Engage large and small employers to implement evidence-based worksite programs to promote physical activity.

Strategy 3. Promote policies that increase opportunities for healthy nutrition in underserved communities such as farmers' markets and community gardens.

Strategy 4. Support the goals and activities of Alaska's Obesity Prevention and Control Program, specifically childhood obesity prevention efforts in the Alaska Alliance for Healthy Kids Strategic Plan to Address Childhood Obesity in Alaska (2013).

Strategy 5. Support the goals and activities identified in the Alaska in Action Statewide Physical Activity and Nutrition Plan (2005).

Children grades K to 8 who are overweight or obese.

Baseline (2015)	**30.7%**
2020 Goal	**30%**

Source: Alaska SWSSS

Adults 18 years and older who are overweight or obese.

Baseline (2014)	**66.2%**
2020 Goal	**63%**

Source: Alaska BRFSS

Adults who report meeting recommended levels of aerobic physical activity in the past 30 days.

Baseline (2013)	**55%**
2020 Goal	**61%**

Source: Alaska BRFSS

Objective 2.3: Reduce the impact of alcohol abuse on Alaska's cancer incidence and mortality.

Strategy 1. Increase the knowledge of the general public and healthcare providers of the increased cancer risk for individuals who engage in excessive and binge alcohol consumption.

Strategy 2. Support efforts by the Alaska Department of Health and Social Services and the Alaska Medicaid Program to integrate behavioral health services with primary care and to increase access to Substance Use Disorder treatment for all Alaskans who need it.

Adults who engage in binge drinking.

Baseline (2014)	**20.2%**
2020 Goal	**20%**

Source: Alaska BRFSS

Goal 2: Prevent cancer from occurring.

Objective 2.4: Reduce the impact of Human papillomavirus (HPV) and Hepatitis C on Alaska's cancer incidence and mortality.

Strategy 1. Increase the knowledge of the general public and healthcare providers of the connection between HPV and cancer, particularly its relationship to cervical cancer and head and neck cancers.

Strategy 2. Increase the HPV vaccine series completion rate among Alaska youth ages 11 to 13 by encouraging healthcare providers to send reminder messages to adolescents and/or parents regarding required and recommended immunizations, including the HPV vaccine.

Youth 11 to 17 years old who complete the HPV vaccine series.

Baseline (2014)	**34% female, 13% male**
2020 Goal	**80%**

Source: Alaska VacTRAK

Strategy 3. Increase the knowledge of the general public and healthcare providers of the connection between Hepatitis C and liver cancer.

Strategy 4. Increase screening for Hepatitis C among selected populations including those born from 1945 through 1965.

Objective 2.5: Reduce the impact of environmental carcinogens on Alaska's cancer incidence and mortality.

Strategy 1. Increase testing of household drinking water wells.

Strategy 2. Increase testing of Alaska homes for radon.

Julie Wrigley, Colorectal Cancer Survivor

Julie Wrigley felt uncomfortable and bloated, and thought there might be something wrong with her digestion. Thinking it was a food allergy, the Anchorage attorney and mother of three removed several foods from her diet, but that didn't help. She visited a number of doctors, including her primary care doctor who asked about her family's medical history.

"I realized I didn't know that answer," she said. "Both of my parents are alive, but I never asked them those questions directly."

Asking those questions revealed that her father had polyps removed from his colon. When Wrigley mentioned that, her doctor recommended a baseline colonoscopy. A 40-year-old marathon runner and vegetarian at the time, Wrigley questioned the test, believing it was only for older people. The colonoscopy diagnosed Stage 3 colon cancer that required significant surgery and 12 rounds of chemotherapy.

Wrigley's lesson? Know your family's medical history. "Listen to your body and do something about it," she said. "And listen to your doctor."

Goal 3: Detect cancer at its earliest stages.

Objective 3.1: Increase access to primary care and medical homes for all Alaskans, particularly for cancer survivors.

Strategy 1. Support implementation of primary care case management and assignment to primary care providers for all Medicaid enrollees.

Strategy 2. Support Federally Qualified Health Centers to recruit patients and provide medical homes.

Adults with a primary care provider.

Baseline (2014)	**81.7%**
2020 Goal	**100%**

Source: Alaska BRFSS

Objective 3.2: Keep current with changes in screening guidelines.

Strategy 1. Annually monitor the United States Preventive Services Task Force guidelines on cancer screening.

Strategy 2. Provide education to primary care providers on changes in screening guidelines.

Objective 3.3: Increase early identification of people at risk for developing cancer due to genetic susceptibility or inherited predisposition.

Strategy 1. Increase use of genetic screening and counseling for all people diagnosed with breast cancer.

Strategy 2. Increase number of adults offered family genetic screening and counseling for Lynch Syndrome to identify risk for developing colorectal cancer.

Adults who receive genetic counseling after cancer diagnosis.

Baseline	**Unknown**
2020 Goal	**Unknown**

Source: ACCP Survey

Goal 3: Detect cancer at its earliest stages.

Objective 3.4: Reduce the mortality rate of women from breast cancer in Alaska.

Strategy 1. Continue to support the Alaska's Breast & Cervical Health Check programs to provide access to screening and treatment for women not eligible for Medicaid.

Strategy 2. Continue mapping and identification of areas with low screening rates and focus resources to increase rates in those areas.

Strategy 3. Coordinate resources such as mobile mammography units for efficiency.

Strategy 4. Engage Federally Qualified Health Centers and Quality Improvement initiatives to increase breast cancer screening rates

Strategy 5. Encourage provider-based reminder, follow up and case management systems.

Strategy 6. Implement mass and small media campaigns to remind and educate women on the importance of early breast cancer detection programs.

Women age 50 to 74 who had a mammogram in the past two years.

Baseline (2014)	**68.4%**
2020 Goal	**75%**

Source: Alaska BRFSS

Women age 50 to 74 in poverty (under 250% FPL) who had a mammogram in the past two years.

Baseline (2014)	**49.8%**
2020 Goal	**55%**

Source: Alaska BRFSS

Female Breast cancer rate of late stage diagnosis.

Baseline (2013)	**36.8** [51]
2020 Goal	**35**

Source: Alaska Cancer Registry

Objective 3.5: Reduce the mortality rate of men from prostate cancer in Alaska.

Strategy 1. Increase the use of informed decision making regarding prostate cancer screening in Alaska.

Strategy 2. Develop, test and evaluate the impact and reach of educational materials specific to Alaskans about prostate health and early detection of prostate cancer.

Strategy 3. Support prostate health education, to include best practice standards, to the full range of health care practitioners.

Objective 3.6: Reduce mortality rates of oral, head and neck cancers in Alaska.

Strategy 1. Increase the number of oral health providers that screen for oral cancer.

Strategy 2. Educate the public on the causal link between alcohol, smoking and oral cancers.

Strategy 3. Educate the public on the causal link between HPV and head and neck cancers.

Oral and pharyngeal cancer rate of late stage diagnosis.

Baseline	**6.4**
2020 Goal	**6.0**

Source: Alaska Cancer Registry

[51] All rates from the Alaska Cancer Registry are noted as per 100,000 population.

Goal 3: Detect cancer at its earliest stages.

Objective 3.7: Reduce the mortality rate of women from cervical cancer in Alaska.

Strategy 1. Continue to support the Breast & Cervical Health Check programs in Alaska to provide access to screening and treatment for those women who are rarely or have never been screened.

Women age 21 to 65 with an intact cervix who had a Pap test in the past three years.

Baseline (2014) **77.9%**
2020 Goal **87%**
Source: Alaska BRFSS

Women age 21 to 65 in poverty (below 250% FPL) with an intact cervix who had a Pap test in the past three years.

Baseline (2014) **66.1%**
2020 Goal **70%**
Source: Alaska BRFSS

Cervical cancer rate of late stage diagnosis.

Baseline (2013) **1.9**
2020 Goal **1.0**
Source: Alaska Cancer Registry

Objective 3.8: Reduce the mortality rate from colorectal cancer in Alaska.

Strategy 1. Launch a pilot project to test the effectiveness of providing home screening kits to patients.

Strategy 2. Continue media campaigns for colorectal early detection cancer screening.

Strategy 3. Continue to deploy "Nolan the Colon" and other model colons to increase community education about colorectal cancer screening and prevention.

Strategy 4. Engage with pharmacists to consider a Flu-FIT campaign that pairs influenza vaccines with FIT tests and cross-promotes both.

Strategy 5. Educate the public and providers on current recommendations for appropriate screenings.

Strategy 6. Encourage providers to establish case management and patient reminder systems.

Strategy 7. Convene the Colorectal Cancer Roundtable to work with work sites, private groups and associations to educate their employees and constituencies about the vital importance of early detection of colorectal cancer.

Strategy 8. Work with Federally Qualified Health Centers to implement a system for early detection screenings, case management, and patient reminders.

Adults age 50 to 75 who had a colorectal screening.

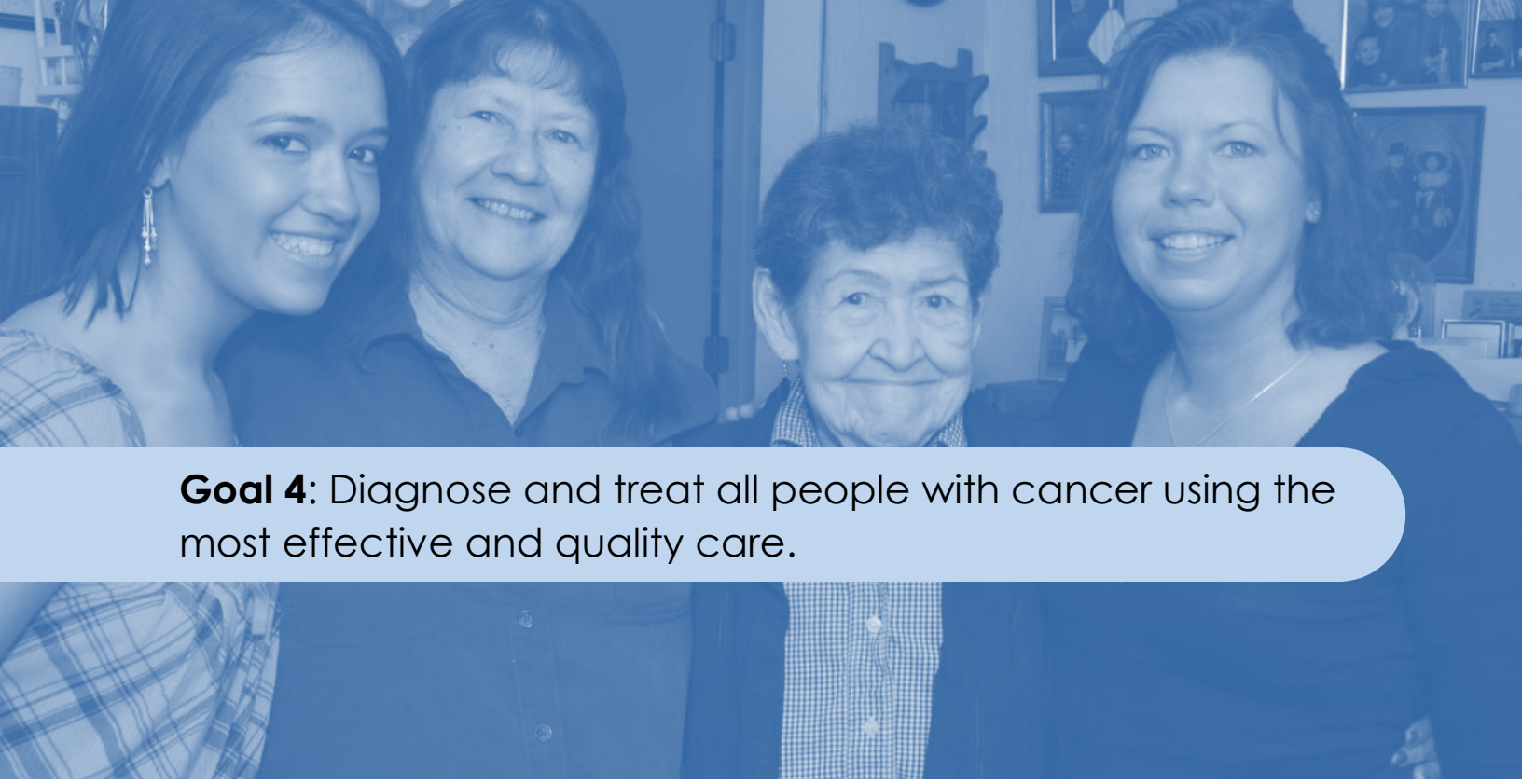
Baseline (2014) **63.1%**
2020 Goal **75%**
Source: Alaska BRFSS

Alaska Native adults age 50 to 75 who had a colorectal screening.

Baseline (2014) **66.4%**
2020 Goal **75%**
Source: Alaska BRFSS

Colorectal cancer rate of late stage diagnosis.

Baseline (2013) **23.7**
2020 Goal **20**
Source: Alaska Cancer Registry



Goal 4: Diagnose and treat all people with cancer using the most effective and quality care.

Objective 4.1: Provide the highest quality of cancer care and support for all patients and their families.

Strategy 1. Increase patient navigation and engagement and informed decision-making, particularly about long-term side effects from cancer treatment; use providers other than physicians for this.

Strategy 2. Offer resources to increase cessation of tobacco use among cancer survivors.

Strategy 3. Reduce the financial burden on cancer survivors by promoting hire of financial counselors, patient navigators, oncology social workers and allied professionals to assist navigate support programs to access insurance and co-pay assistance programs for chemotherapy and treatment access.

Strategy 4. Increase support for caregivers of all ages to bolster support groups, respite, palliative care, and in-home services.

Strategy 5. Increase discussion of surgical reconstruction options at initial counseling with breast cancer survivors.

Strategy 6. Increase discussion of fertility options, particularly for young cancer survivors, at time of diagnosis and during treatment decisions.

Strategy 7. Increase engagement with childhood cancer survivors and their families.

Strategy 8. Increase engagement with young cancer survivors.

Strategy 9. Increase engagement with LGBTQ cancer survivors and provide training for welcoming oncology offices.

Strategy 10. Support research on needs of Alaska young adult cancer survivors to better understand support needed during treatment and long term survivorship.

Adult cancer survivors who called the Alaska Quit Line.

Baseline (2014)	**129**
2020 Goal	**200**

Source: Alaska Quit Line data

Adult cancer survivors who receive financial counseling and support.

Baseline	**Unknown**
2020 Goal	**Unknown**

Source: ACCP Survey

Number of patient navigators providing support for cancer survivors and their families.

Baseline (2016)	**10**
2020 Goal	**15**

Source: ACCP Survey

Goal 4: Diagnose and treat all people with cancer using the most effective and quality care.

Objective 4.2: Increase the awareness of and access to clinical trials for Alaskans close to home.

Strategy 1. Provide educational talks to the public about clinical trials using ENACCT speakers' bureau.

Objective 4.3: Increase access to health and wellness programs during cancer treatment and post-treatment.

Strategy 1. Increase the use of nutrition, exercise, physical therapy and oncology rehabilitation, during and after cancer treatment.

Strategy 2. Increase use of mental health therapy in hospital and outpatient settings to support patients and families.

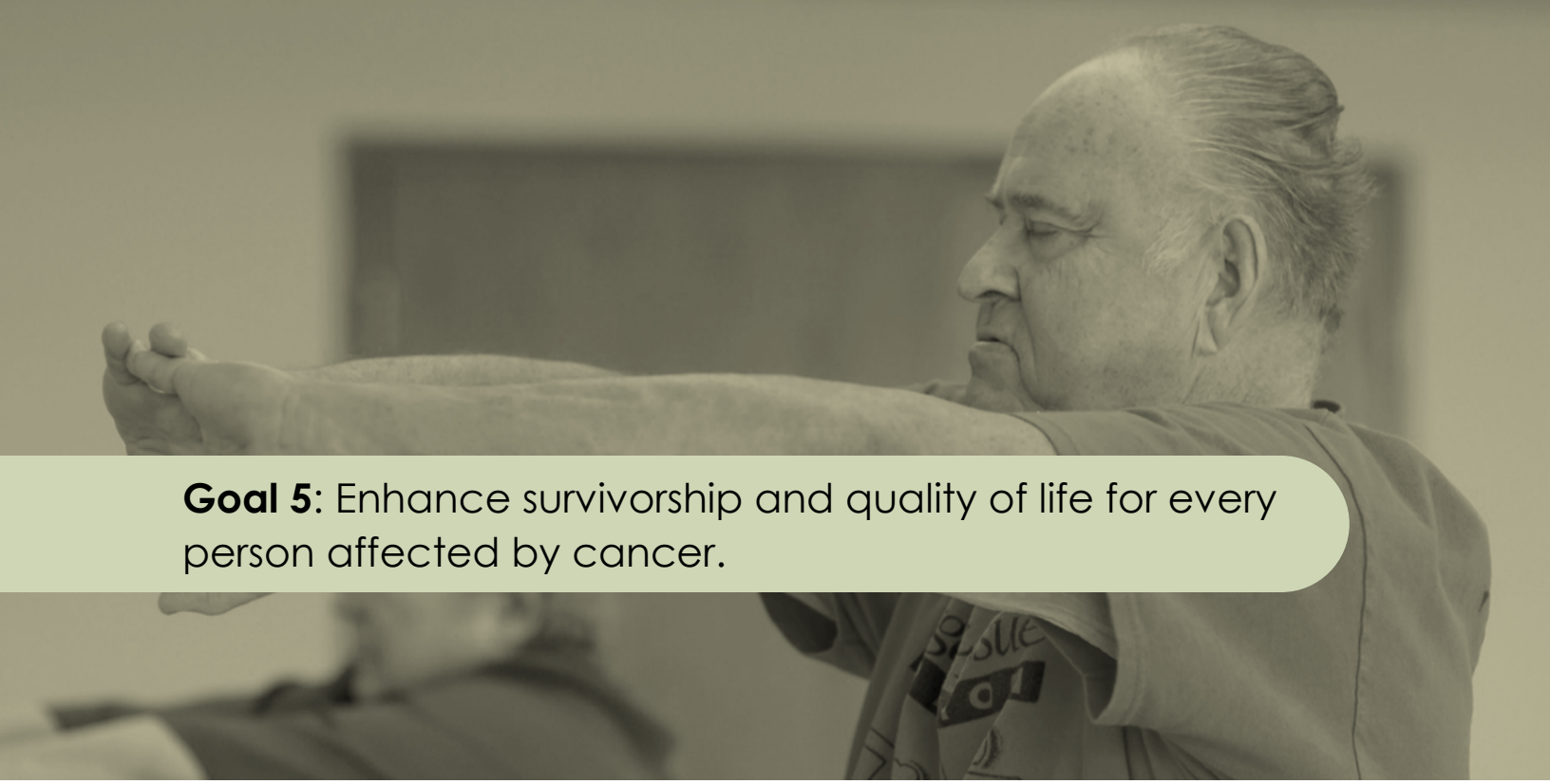
Strategy 3. Share evidence of effectiveness for using integrative medicine and complementary therapies during cancer treatment to improve outcomes and reduce negative symptoms.

Clinical Trials

A cancer clinical trial is a medical research study in which people that have been diagnosed with cancer volunteer to participate in new methods of prevention, screening, diagnosis, or treatment. Clinical trials are one way of discovering new drugs and advancing treatment options for current and future patients. Each clinical trial offers its own opportunities and risks. To join in a clinical trial, a patient must have met strict eligibility criteria, such as type or stage of cancer or demographic criteria on age, gender and other medical conditions.

For more information on available clinical trials in Alaska, visit:

1. http://dhss.alaska.gov/dph/Chronic/Documents/Cancer/assets/ClinicalTrials.pdf
2. http://alaska.providence.org/services/c/cancer/forpatients/research
3. http://alaskaregional.com/service/cancer-care-center
4. http://www.bannerhealth.com/Services/Cancer
5. http://www.akmedicalspecialties.com/Our-Centers/Alaska-Clinical-Research-Center.aspx



Goal 5: Enhance survivorship and quality of life for every person affected by cancer.

Objective 5.1: Increase offerings of support groups statewide.

Strategy 1. Increase outreach and engagement for specific groups to include support groups and offerings tailored to men, Alaska Native People, people who speak languages other than English, and innovative approaches such as the "Laughter Club."

Strategy 2. Increase survivorship workshops around the state.

Strategy 3. Host at least one survivorship conference or program each year.

Strategy 4. Increase completion of survivorship plans at the end of treatment.

Strategy 5. Increase support groups for caregivers and supportive care efforts for children, youth and families impacted by cancer.

Objective 5.2: Educate public, patients, caregivers and providers about palliative care.

Strategy 1. Offer preparation course for Registered Nurses certification testing annually.

Strategy 2. Increase the use of advance directives, Comfort One, Medical Orders for Scope of Treatment (MOST), and other advanced care planning tools for effective end of life care planning.

Number of certified Hospice and Palliative Care Nurses.

Baseline (2016)	**15**
2020 Goal	**30**

Source: Hospice and Palliative Care Nurses Association

Cancer and Palliative Care

Palliative care is support given to improve the quality of life of a person and his or her family who has been diagnosed with a serious or life-threatening disease, such as cancer. The provision of palliative care spans the continuum of a person's cancer experience, from diagnosis to treatment, and in some cases end-of-life care. The goal of palliative care is to relieve pain and suffering as early after diagnosis as possible and provide a range of supportive services that enhance comfort. The majority of insurance plans, including Medicare and Medicaid, cover all or part of palliative care.

Goal 5: Enhance survivorship and quality of life for every person affected by cancer.

Laura Revels, Two-time Cancer Survivor and Advocate

Laura with children Taija and Sage Revels

"The arts help to bring ritual back into our lives. By incorporating story, art, dance and singing, it invites people to talk about cancer in a way that is not so threatening. Once we start opening and giving that invitation for people to talk about it, then from there, we can start taking steps to what we can do next."

~ Laura Revels, Dancing with NED since 2008

I am a Tlingit originally from Southeast Alaska, and have been involved with Tribal Health for about 16 years, with the last 8 years in cancer education, and storytelling. I am a single parent, beader, storyteller, and cancer advocate-survivor. I am passionate about how health education and information is communicated, especially for Indigenous People. I continually explore ways to use technology and traditional methods, such as storytelling, to share knowledge, and relay wellness and prevention education.

There are some things in life we do not have control over, but we can change how we think about them. We can adapt, persevere and overcome. The second time I was diagnosed with cancer, within a span of 3 years, I was scared, and had to go through a year of cancer treatments. While going through treatments, I also saw how cancer affected others, and I became inspired to see how our arts and stories could help to deal with cancer and its treatments. Which lead me to become a digital storyteller trainer, and I started helping others to share their story. I also started using our traditional arts, such as beading and carving, to help share stories, to begin healing, and to build awareness about cancer. I believe in the power of storytelling, and wholeheartedly agree with Maya Angelou, who said it best when she said, "There is no greater agony than bearing the untold story inside you." Here's to changing the story of cancer in our communities!

Objective 5.3: Ensure awareness of and access to comprehensive pain assessment and management services for all cancer patients in Alaska.

Strategy 1. Address barriers and challenges to palliative care and pain management for rural residents and increase the use of telehealth.

Strategy 2. Educate the public and providers regarding effectiveness of non-pharmacological pain management and increase the use of these techniques among cancer patients experiencing pain.

Objective 5.4: Increase availability and use of hospice services.

Strategy 1. Provide the highest quality of grief support for patients and their families.

Strategy 2. Increase public dialogue about death and dying.

Goal 6: Maintain high quality surveillance data and incorporate the latest research and best practices into cancer prevention and treatment.

Objective 6.1: Increase the knowledge of policy, systems and environmental approaches to addressing the cancer burden in Alaska using evidence based best practices.

Objective 6.2: Maintain high quality cancer registry and disseminate timely reports of surveillance data.

Strategy 1. Track and monitor cancer care access and outcomes following Medicaid expansion.

Strategy 2. Increase adoption of Electronic Medical Records and connectivity to the Alaska Health Information Exchange to coordinate data collection and submittal to cancer registries and the central registry and to increase data collection from physicians.

Create and disseminate four timely reports on the burden of cancer in Alaska.

Baseline 0
2020 Goal 4
Source: ACCP Records

Create and disseminate a report on Alaska cancer survivors.

Baseline 0
2020 Goal 1
Source: ACCP Records

Cancer and Epidemiology

Cancer epidemiology plays an integral role in the prevention and control of the disease. It pinpoints how often the disease occurs in different groups of people and the factors correlated with incidence and mortality. Epidemiology has helped to identify ways to reduce cancer risk, such as receiving regular preventive and routine medical care, avoiding tobacco, avoiding or limiting alcohol use, protecting against sun exposure, eating a healthy diet, maintaining a healthy weight, and being physically active. Research has also demonstrated the importance of screening in early diagnosis and improving the outcome of many cancers, including cervical and colorectal cancer.

Goal 6: Maintain high quality surveillance data and incorporate the latest research and best practices into cancer prevention and treatment.

Objective 6.3: Annually evaluate the Alaska Comprehensive Cancer Plan with the Alaska Comprehensive Cancer Partnership and workgroups to determine the success of implementation.

Objective 6.4: Annually review and evaluate a systems change agenda for cancer prevention and control in Alaska.

Strategy 1. Annually convene a policy committee meeting in the fall to determine priorities for educating policymakers in the coming year.

Objective 6.5: Continue to increase data collection and monitoring efforts for minority populations who may experience health disparities.

Strategy 1. Increase use of LGBTQ data collected by the Alaska Behavioral Risk Factor Surveillance Survey (BRFSS).

Mike Zoske, Two-time Cancer Survivor and Advocate

Mike was diagnosed in 1999 with prostate cancer. After his biopsy, Mike's doctor called him at home and asked that he come into his office the following morning. As many cancer survivors can recall, the night before his diagnosis was restless.

Mike and his doctor discussed the treatment options available and decided on Brachy Therapy. On June 18, 1999 Mike's medical team inserted 61 titanium seeds into his prostate. Since then, he has participated in five clinical studies, two of which he "flunked out" because his prostate-specific antigen (PSA) levels increased during the study period. Mike was aware of these increases because he originally had a PSA test and digital rectal exam (DRE), which exposed his prostate cancer at an early stage.

Screening and early diagnosis helped Mike and his family enjoy a good life together. He is a proponent of PSA testing and digital rectal exams because of their ability to catch prostate issues at an early stage. As Mike says, "Do not let yourself be one of the 38,000 men who die annually because of not having an exam!" If you or a loved one has been diagnosed, Mike recommends Us TOO, a local men's cancer support group that he has volunteered with for years that promotes education and information.

Appendix

List of Acronyms, Abbreviations and Definitions

ABVS	Alaska Bureau of Vital Statistics
ACG	American College of Gastroenterology
ACIP	Advisory Committee on Immunization Practices
ACoS	American College of Surgeons
ACCP	Alaska Comprehensive Cancer Partnership
ACR	Alaska Cancer Registry
Age-Adjusted	Age-Adjusted to the year 2000 U.S. Standard Population
AHELP	Alaska Health Education Library Project
ACS CAN	American Cancer Society Cancer Action Network
ANTHC	Alaska Native Tribal Health Consortium
BCCEDP	Breast and Cervical Cancer Early Detection Program
BCHC	Breast and Cervical Health Check Program
BRFSS	Behavioral Risk Factor Surveillance System
BSE	Breast Self-Examination
Cancer Rate	Cancer rates are per 100,000 people
CBE	Clinical Breast Examination
CCC	Comprehensive Cancer Control
CCCP	Comprehensive Cancer Control Program
CDC	Centers for Disease Control and Prevention
CHA/P	Community Health Aide/Practitioner
CPCP	Alaska Cancer Prevention and Control Program
CRC	Colorectal Cancer
CT	Computerized Tomography
DHSS	Alaska Department of Health and Social Services
DRE	Digital Rectal Exam
EARTH	Education And Research Toward Health Study
ENACCT	Education Network to Advance Cancer Clinical Trials
FDA	Federal Drug Administration
FOBT	Fecal Occult Blood Test
FPL	Federal Poverty Level
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HPV	Human Papilloma Virus
IOM	Institute of Medicine

List of Acronyms, Abbreviations and Definitions

MRI	Magnetic Resonance Imaging
NAACCR	North American Association of Central Cancer Registries
NBCCEDP	National Breast and Cervical Cancer Early Detection Program
NCCCP	National Comprehensive Cancer Control Program
NCHS	National Center for Health Statistics, Centers for Disease Control and Prevention
NCI	National Cancer Institute
NIH	National Institutes of Health
NPCR	National Program of Cancer Registries
OANHR	Office of Alaska Native Health Research
PCBs	Polychlorinated biphenyls
PSA	Prostate-specific Antigen
SEARHC	Southeast Alaska Regional Health Consortium
SEER	Surveillance, Epidemiology, and End Results Program, National Cancer Institute
SHS	Secondhand Smoke
STD	Sexually Transmitted Disease
SWSSS	Student Weight Status Surveillance System
TPC	Alaska Tobacco Prevention and Control Program
UDS	Uniform Data System
USPSTF	United States Preventive Services Task Force
UV	Ultraviolet
YRBS	Youth Risk Behavioral Survey

Alaska Comprehensive Cancer Control Plan 2016 - 2020

December 2016

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Funding for this publication was provided by the Centers for Disease Control and Prevention (CDC), Cooperative Agreement Number 5 NU58DP003856-05-00. This publication was produced by the Alaska Department of Health and Social Services and Agnew::Beck Consulting.