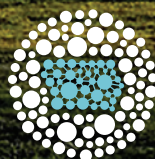




IOWA CANCER PLAN

2018-2022



Iowa Cancer
Consortium

www.canceriowa.org



George Weiner, M.D.
President, Board of Directors,
Iowa Cancer Consortium

Dear people of Iowa,

As President of the Iowa Cancer Consortium Board of Directors, it is my honor and pleasure to introduce the 2018-2022 Iowa Cancer Plan. This is the fourth such plan developed by the Consortium beginning with our first plan presented to the State of Iowa in 2003.

We have made significant progress in some areas of cancer control in Iowa based on initiatives that were outlined in the prior cancer control plans. Deaths from the most common cancers - lung, colorectal, breast and prostate cancer - have dropped steadily (albeit not fast enough). There is increasing acceptance of the importance of tobacco cessation, physical fitness, screening for cancers including colorectal and breast cancer, HPV vaccination and testing for radon as ways to reduce the burden of cancer.

Yet, there is still much to be done. There are still too many preventable deaths from cancer in Iowa. We could reduce the death rate from cancer in Iowa by over one-third if we fully applied what we already know about cancer control. Some populations in Iowa have a particularly high burden of cancer, and there is more that can and should be done to address these cancer disparities. In addition, cancer research is progressing at an unprecedented rate, and we need to continue to invest in cancer research in our state. This research will provide new tools that will help reduce the burden of cancer even further through improved prevention, early detection and therapy.

This cancer plan was developed over many months by dedicated teams of experts with a broad variety of backgrounds, including public health professionals, social scientists, epidemiologists, cancer researchers, oncologists, other cancer clinicians and patient advocates.

We owe it to the people of Iowa to do everything we can to work together to further reduce the burden of cancer now and for future generations. This plan describes how.

Sincerely,

George Weiner, M.D.
President, Board of Directors, Iowa Cancer Consortium



Dear Iowans,

Development of a plan and engaging key partners is key to successful community-based interventions which focus on improving health of Iowans. For 17 years, the Iowa Cancer Consortium has led Iowa's efforts in understanding cancer's impact on Iowans, as well as the identification of interventions which reduce the impact of cancer on our residents.

As the second leading cause of death among Iowans, cancer is a significant public health issue for our state. Successful interventions require the engagement of community-based resources, healthcare providers, families, and numerous other partners.

And we have proven strategies that reduce the burden of cancer. For example, we know that avoiding tobacco use reduces cancer risk. Having regular cancer screenings can help find precancerous changes and cancers at their earliest stages when prevention and treatment can be easier and more effective. Research also suggests that getting exercise, eating fruits and vegetables, and receiving certain vaccinations also are proven strategies which not only improve health generally, but are associated with reduced cancer risk.

The development of the Iowa Cancer Plan assists public policymakers, community-based organizations, healthcare providers, and all Iowans to harness energies to focus on effective strategies ranging the continuum from prevention through treatment and survivorship. Strong partnerships and a continued investment in cancer control and prevention will ensure a future where cancer is no longer a burden for Iowans. I commend this plan to Iowans impacted and interested in reducing cancer's burden. A community informed is a community armed with the tools necessary to make Iowa the healthiest state in the country.



Sincerely,

Gerd W. Clabaugh, MPA
Director, Iowa Department of
Public Health

Dear Iowans,

I want Iowa to be the healthiest state in the nation. Key to that goal is combating the second-leading cause of death in Iowa, cancer. The Iowa Cancer Plan is a diverse and collaborative effort to establish Iowa's vision to combating cancer over the next five years.

It is important we have a comprehensive cancer control plan in place, however let us not lose sight of the thousands of Iowans whose lives have been taken by cancer. Their stories sometimes are heart wrenching and always moving. Throughout this plan, you will find stories of Iowans who have been affected by cancer.

The Iowa Cancer Plan, newly revised for 2018-2022, is a guide for cancer control practices across the state. It is also a tool for you as an Iowan. Because we are all changed by cancer, we must all work together to conquer it. You can do so much:

- Share the stories and information within this plan.
- Share your own story.
- Participate in cancer control in any way you can.
- Join the Iowa Cancer Consortium.
- Advocate for resources and encourage partnerships in the fight against cancer.

I commend the Iowa Cancer Consortium, its partners, and the passionate individuals and organizations on their collaborative efforts to reduce the burden of cancer for all Iowans. To ensure a healthier future for all Iowans, we must continue to hear one another's stories, tell our own, and most importantly, work together to conquer cancer.



Sincerely,

Kim Reynolds
Governor of Iowa

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the glossary on page 39.

DEDICATION AND ACKNOWLEDGEMENTS

The 2018-2022 Iowa Cancer Plan is dedicated to the people of Iowa whose lives have been touched by cancer. These Iowans are the faces of cancer in Iowa and inspire a collaborative effort to reduce the burden of cancer in our state.

This plan was created in a spirit of collaboration, and is the result of the work and input of many Iowans. We would like to extend a very sincere thank you to the following people for their passion and efforts in creating the 2018-2022 Iowa Cancer Plan:

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The generous individuals who shared their cancer stories

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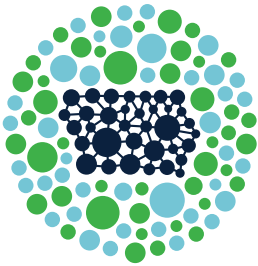
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Introduction to the Iowa Cancer Consortium



The Iowa Cancer Consortium is a statewide nonprofit coalition of health care providers, public health professionals, caregivers, researchers, cancer survivors, volunteers and advocates working together to reduce the burden of cancer in Iowa.

WHAT DOES THE CONSORTIUM DO?



There is a role at the Iowa Cancer Consortium for every Iowan. Learn more at www.canceriowa.org/membership.

- Establishes and grows partnerships between individuals and organizations, enhancing partners' abilities to address cancer issues.
- Provides a neutral setting for agencies competing for the same funding and patient base to work together to reduce duplication of efforts and advance common **cancer control** issues.
- Leverages state and federal funds to the fullest extent by using the expertise of volunteers and members.
- Provides capacity building opportunities, resources and support for **cancer control** work.
- Provides funding through a competitive grant process to programs and projects that advance priorities in the Iowa Cancer Plan.

The Iowa Cancer Consortium envisions an Iowa where cancer is not a burden. Our mission is to reduce cancer **incidence** and **mortality** in Iowa through collaborative efforts that provide services and programs directed towards comprehensive cancer prevention and control.

Above all, the Iowa Cancer Consortium is collaborative. We connect new and sometimes unlikely partners who want to make bigger impacts with their work and resources. We create partnerships that strengthen cancer prevention, screening, treatment and **quality of life** for all Iowans.

EIGHT TRAITS GUIDE THE WORK AND PARTNERSHIPS OF THE IOWA CANCER CONSORTIUM

1 The Iowa Cancer Consortium is *empowering*.

It connects stakeholders with tools, resources, knowledge and partnerships to help them succeed in their **cancer control** work

2 The Iowa Cancer Consortium is *credible*.

It recognizes that advances in cancer prevention, screening, treatment and **quality of life** are made through scientific research. It connects partners with reliable sources of information to help them succeed. It helps the public find accurate cancer information.

3 The Iowa Cancer Consortium is *open and engaging*.

It is approachable and seeks partners with diverse ideas and talents. There is a role at the Iowa Cancer Consortium for every Iowan.

4 The Iowa Cancer Consortium is *passionate*.

It is personally and professionally driven to make cancer less of a burden on families, friends, neighbors, coworkers and all Iowans.

5 The Iowa Cancer Consortium is *compassionate*.

It recognizes that every person experiences cancer differently and has a unique story to tell. It believes every cancer story has value.

6 The Iowa Cancer Consortium is *innovative*.

It thinks creatively to solve problems. It embraces new technologies and new ideas, and it helps its partners do the same.

7 The Iowa Cancer Consortium is *professional*.

It takes its work seriously and acknowledges the value of partners' contributions. It seeks input from a variety of stakeholders, and is balanced in its decisions and actions. It is competent and capable and understands the complexities of cancer and cancer issues.

8 The Iowa Cancer Consortium is *equitable*.

It believes that access to cancer services and outcomes should not depend on **race, creed, color, national origin, age, sex, disability, sexual orientation, gender identity** or any other classification.

As a leader in **cancer control**, the Iowa Cancer Consortium offers the state's cancer stakeholders access to resources, expertise, and non-competitive collaboration across traditional boundaries for a bigger impact in cancer prevention, early detection, treatment and **quality of life**.¹



Introduction to the 2018-2022 Iowa Cancer Plan

Each year, an estimated 17,400 Iowans are diagnosed with cancer and 6,200 lose their lives. Cancer remains the second-leading cause of death in Iowa.²

Iowa Cancer Plan terms defined:

PRIORITY

Major issue to be addressed in order to reduce the burden of cancer in Iowa.

GOAL

A measurable aim that addresses one or more priorities.

ACTIONS

Activities that help accomplish a specific goal.

DATA TARGETS

Data benchmarks used to measure and evaluate progress.

All Iowans have a role in reducing the state's **cancer burden**. The 2018-2022 Iowa Cancer Plan serves as a roadmap for comprehensive **cancer control** efforts in Iowa for the next five years. It is meant to help provide direction and guide

all Iowans involved in cancer to work together towards accomplishing the same goals. The Iowa Cancer Plan identifies five priorities that must be addressed in order to reduce the burden of cancer in Iowa.

THE IOWA CANCER PLAN'S FIVE PRIORITIES

1 PREVENTION

Prevent cancer from occurring whenever possible.

2 SCREENING

Detect cancer at its earliest stages.

3 TREATMENT

Improve the accessibility, availability and quality of cancer treatment services and programs.

4 QUALITY OF LIFE

Ensure the highest possible **quality of life** for all Iowans affected by cancer.

5 HEALTH EQUITY

Identify and eliminate cancer **health disparities**.

The plan is organized by goals, actions and targets. Goals are measurable aims that address one or more of the above priorities. Under each goal there are actions, or activities that help accomplish a specific goal. At the end of each goal are data targets. These targets are data benchmarks that are used to measure and

evaluate progress towards the outlined goals. Throughout the plan, specific actions are outlined that address policy, systems and environments.

These approaches are needed for long-term, sustainable improvements in comprehensive **cancer control**.

Who Should Use the Iowa Cancer Plan?

The Iowa Cancer Plan was created for all Iowans to use as a guide for **cancer control** and prevention work across the state. A diverse network of partnerships among individuals and organizations is essential for achieving the goals outlined within the plan. Having a variety of partners, such as the following, will strengthen efforts.

- **Cancer survivors**
- Caregivers
- Businesses and employers
- Legislators
- Community-based organizations and volunteers
- Educators
- Faith-based organizations
- Government agencies
- Health-care organizations and systems
- Media
- Payers and insurance providers
- Physicians and health-care providers
- Professional organizations
- Public health departments
- Public policy advocates
- Schools and universities
- Researchers
- All Iowans



Read on to learn more about how Iowans can get involved in implementing the Iowa Cancer Plan.

A Picture of Iowa's Cancer Incidence and Mortality Rates Over Time



The state of **cancer control** is constantly changing. The graph below depicts how cancer **incidence** and **mortality** in Iowa have changed over time. At the same time, the 2018-2022 Iowa Cancer Plan is a continuation of plans from previous years. Some of the content within this version of the Iowa Cancer Plan will be reminiscent of previous versions. While this plan does not address every issue and need existing in comprehensive **cancer control** in Iowa, the priorities, goals and

actions have been determined by the Iowa Cancer Consortium and its partners to be the leading evidence-based methods to reduce the burden of cancer in Iowa.

This graph provides a visual overview of the burden of various cancers in Iowa over time. The blue columns represent the number of new cases diagnosed in Iowa each year (**incidence**) and red columns represent the number of cancer deaths in Iowa each year (**mortality**).

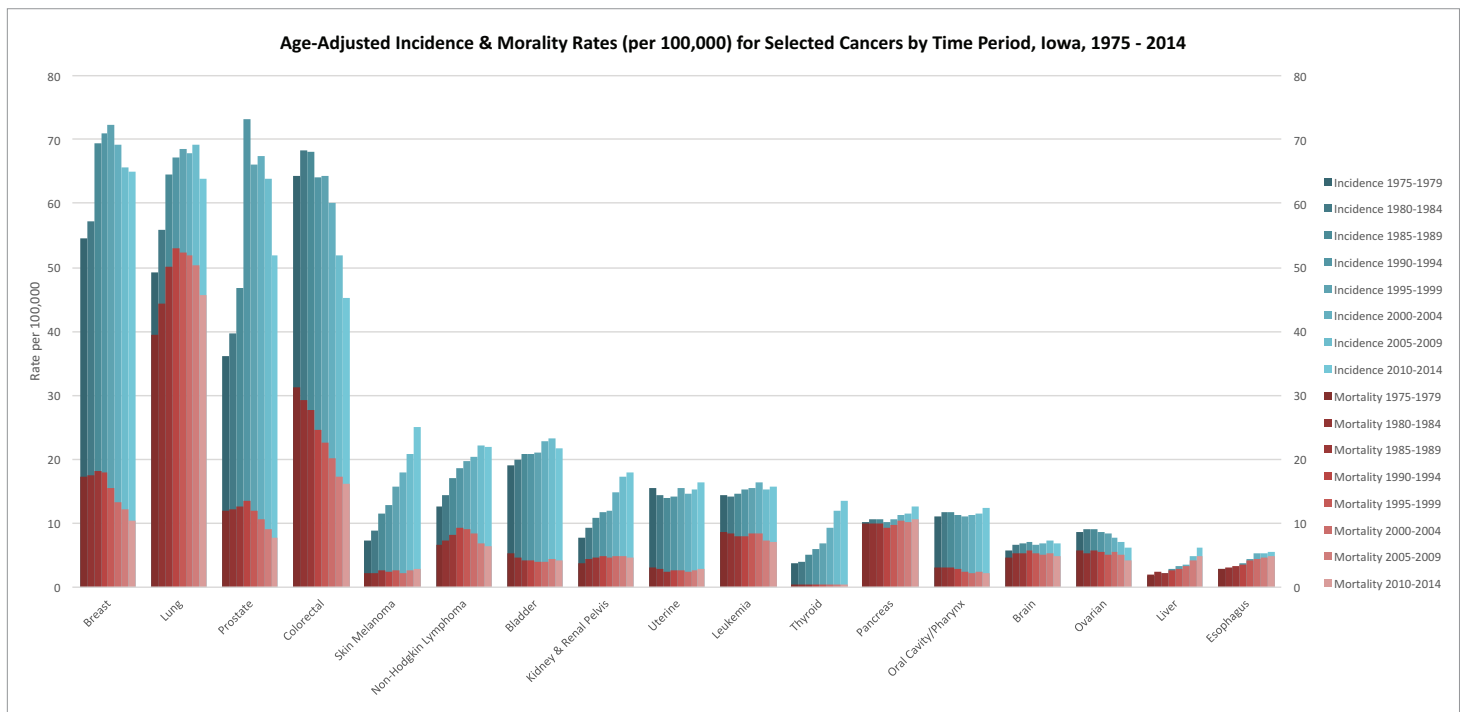


Figure 1. **Age-Adjusted Incidence & Mortality Rates (per 100,000) for Selected Cancers by Time Period, Iowa, 1975-2014** ³

Iowa Incidence and Mortality Baselines and Targets for 2022

For the clearest picture of changes in cancer **incidence** and **mortality** over time, **Surveillance, Epidemiology and End Results** Program (SEER) data from 2012-2014 was used to establish baselines.

Researchers at the Iowa Cancer Registry analyzed data from previous years to predict cancer incidence and mortality in 2022 if no **interventions** are implemented. However, because of the priorities, goals and actions outlined in the Iowa Cancer Plan, further reduction

in incidence and mortality is expected. Incidence targets were set using a percent reduction from projected 2022 rates. Mortality targets were set based on Healthy People 2020 recommendations.⁴ These adjustments are reflected in the 2022 data targets included in the chart below.

Please note that the rates in this table are **age-adjusted** to the 2000 U.S. Standard population per 100,000 population.

Cancer Type	INCIDENCE		MORTALITY	
	2012-2014 Baseline	2022 Target	2012-2014 Baseline	2022 Target
All Cancer Sites	459.5	402.0	167.3	153.9
Late Stage Female Breast	39.1	29.3	19.3	19.0
Colorectal	44.8	33.9	15.6	13.7
Cervical	7.3	3.6	2.0	1.8
Lung	63.2	49.1	45.3	41.7
Liver	6.2*	7.3*	4.8	4.4
Prostate	01.9	88.7	19.6	18.0
Skin Melanoma	25.3*	27.5*	2.9	2.7

Table 1. Iowa Cancer Plan **incidence** and **mortality** targets³

*Skin melanoma and liver cancer **incidence** has been on an upward trend. While the 2022 target is higher than the baseline, it is a reduction of the projected 2022 rate.

2018-2022 Iowa Cancer Plan Priorities

1 PREVENTION

Many cancers in Iowa can be prevented. The **National Cancer Institute** estimates that almost one third of cancers in the United States are linked to obesity, lack of physical activity and/or poor nutrition.⁵ Cancers caused by tobacco and **secondhand smoke**, excessive alcohol consumption and certain viruses are highly preventable.

Behaviors that are known to reduce the risk of developing cancer include:

- Avoiding tobacco use and **secondhand smoke**.
- Getting the recommended amount of exercise.
- Eating a variety of fruits and vegetables.
- Limiting alcohol consumption.
- Completing the **human papillomavirus (HPV)** and hepatitis B vaccination series.
- Wearing sunscreen and sun protective clothing.
- Testing for **radon** and fixing indoor radon problems if needed.



Gail Orcutt, radon-induced lung cancer survivor and cancer prevention champion.

In Iowa, rates of melanoma, breast and colorectal cancers continue to be higher than the national average. Cancers such as liver, lung and pancreatic have been on the rise in recent years. Fortunately there are proven actions that individuals, organizations and communities can take to reduce the risk of these and other types of cancers from occurring. The 2018-2022 Iowa Cancer Plan includes goals with actions that, if accomplished, are proven to lower the likelihood of certain cancers occurring.



2 SCREENING

When cancer is detected at its earliest stages, cancer treatment is often more effective and survival is more likely.

Evidence-based screening methods do not exist for all cancers. But for those that have an associated evidence-based screening method – breast, cervical, colorectal and lung – screening is a critical part of reducing the number of deaths from cancer. For example, a study published in the journal *Cancer* has reported that if 80% of the eligible population were to be screened for colorectal cancer by 2018, more than 200,000 lives could be saved nationwide.⁷

In some cases, screening tests detect cells that are not yet cancer, but that have the potential to become cancer. For example, the Pap test can detect pre-cancerous cells in the cervix. If pre-cancerous cells are found, they can be treated, stopping cervical cancer before it starts.

Many approaches are necessary for screening rates to go up and death rates to go down:

- More education is needed so that Iowans better understand cancer screening guidelines and opportunities.
- Iowans need access to a **medical home**, so they can make informed and personal decisions along with a trusted medical provider.
- Iowans need access to screening services. Barriers to health care must be addressed at a systematic and policy level.
- Screening services must be offered in inclusive, supportive and safe settings.
- When screening tests detect cancer, patients must be able to easily and readily access cancer treatment.

Making decisions about screening can be overwhelming and confusing. Multiple well-respected organizations, such as the **American Cancer Society** and the United States Preventive Services Task Force, publish screening guidelines to help individuals make decisions. Ultimately, Iowans should work with a medical provider to determine which screening methods are best for them and when screening should occur.

Many cancers do not yet have an evidence-based screening method. For those that don't, support for research to develop effective screening tests is critical.

This plan addresses individual, provider, community, clinical, policy and system approaches to increasing the early detection of cancer in the state. Components of all of these are needed to truly improve cancer **incidence** and **mortality** in Iowa.



3 TREATMENT

When cancer is found, an individual's survival and **quality of life** can depend on the availability of timely, quality treatment.

Iowans face a number of barriers to accessing lifesaving cancer treatment, including:

- Access to adequate health insurance.
- Transportation to medical facilities where quality care is available, especially in rural parts of the state.
- Financial insecurity.
- Barriers related to culture, language and/or identity.
- Competing basic needs and priorities.
- Overall availability of a qualified cancer workforce.
- Lack of awareness or understanding of the benefits of clinical trials.

Cancer research at all phases – including clinical trials – must be adequately supported so that new, emerging and more effective treatment methods are developed and utilized.

Additionally, **quality of life interventions** such as physical activity and nutrition programs can enhance and should be considered a crucial part of cancer treatment.

This plan addresses identified barriers to quality cancer treatment at the community and system levels, and recognizes the wide range of partners who must work collaboratively on a comprehensive approach to caring for Iowans.

4 QUALITY OF LIFE

Scientific advances in screening and treatment have allowed those diagnosed with cancer to live longer than ever before. In the United States, more than half of those who receive a cancer diagnosis will be alive in five years.⁸

Iowa's population is growing older. An estimated 15.8% of the state's total population was age 65 or older in 2014, and that percentage continues to rise.⁹ As the size of the older population increases, so will the number of cancer diagnoses, patients and survivors.

Iowans face unique challenges following a cancer diagnosis. Treating cancer can cause a variety of short- and long-term effects that can impact not only the patient, but also those close to them.

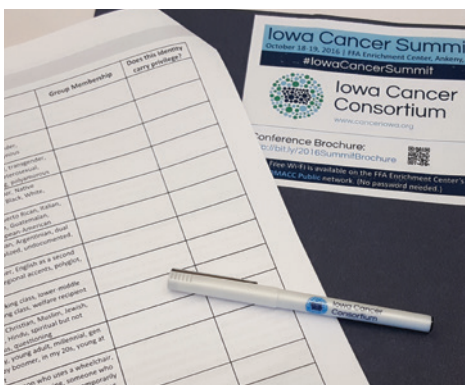
Additionally, research and advances in treatment have led to increased rates of survival for childhood, adolescent and young adult cancers. These populations face unique challenges as survivors, because less is known about **late effects** of treatment.⁷¹

In cancer, **survivorship** covers physical, **psychosocial** and economic issues, from diagnosis until the end of life. Survivorship experiences differ based on a person's unique experience. Survivorship can include:

- Issues with accessing health care and follow-up treatment.
- Changes in frequency of cancer screening.
- Late and long-term effects of treatment.
- Wellness support and services.
- Subsequent cancers.
- **Palliative care.**
- Hospice.
- Family members, friends and caregivers are also a part of the **survivorship** experience.

This plan addresses quality-of-life issues throughout a person's experience with cancer. Much of the burden of cancer is based on an individual's physical and **psychosocial** state. These populations face unique challenges as survivors.

5 HEALTH EQUITY



As demographics change in the United States and Iowa, so does the opportunity for every person to attain the highest level of health. Iowans face significant differences in access to and utilization of health care and health services.¹⁰ Many of these differences can be attributed to the social determinants of health, which are the conditions in the environment in which people are born, live, work and age. Differences in the social determinants of health and **quality of life** lead to **health disparities**.¹¹ Addressing **health disparities** can improve health and reduce the burden of cancer in Iowa.

Health disparities based on many different factors can be found throughout Iowa. Some of the most prominent include:

- Disparities based on geographic location. According to the United States Census Bureau 35.8% of Iowa can be considered rural.¹² Iowans living in rural parts of the state can face access issues based on lack of transportation and insufficient workforce. Additionally, there are 94 medically underserved areas/populations in Iowa.¹³ Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) identify geographic areas and populations with a lack of access to primary care services.
- Disparities based on cultural and/or language. By 2050, racial and ethnic minorities are predicted to make up the majority of the U.S. population.¹⁴ Iowa's population is changing, as well. Between 2000 and 2014 the Hispanic population in Iowa increased more than 110%. Similarly, the Asian population increased more than 88% and the Black population increased more than 71%.¹⁵ To ensure equitable health for all Iowans, health education, preventive services, health care, public health and other health services must be available and delivered in culturally and linguistically appropriate ways.

- Disparities based on **gender identity** and **sexual orientation**. The specific preventive and health care needs of members of the lesbian, gay, bisexual, transgender and queer (LGBTQ) community have overwhelmingly been overlooked in the past. Yet, we now know that members of this community are at an increased risk for many types of cancer. For example, LGBTQ people smoke cigarettes at a rate that is 68% higher than the rest of the population.¹⁶ Additionally, LGBTQ people face continued discrimination and stigma within health care settings.

The examples above are not exhaustive. Iowans may face **health disparities** due to their racial or ethnic group; religion; socioeconomic status; gender; age; mental health, ability status; **sexual orientation** or **gender identity**; geographic location; or other characteristics historically linked to discrimination or exclusion.⁹ These inequities will continue to increase if the underlying social determinants of health are not addressed.

The Iowa Cancer Consortium and its partners believe every Iowan should have the same opportunity to access and receive appropriate quality cancer services. By addressing disparities every goal and action will have a greater and more equitable effect.

Goal 1

Increase collaboration among organizations, coalitions, businesses and individuals to maximize cancer control resources and efforts.

ACTIONS

- A** Engage traditional and non-traditional partners in coordinated **cancer control** efforts.
- B** Increase resource sharing between **cancer control** partners.
- C** Encourage all **cancer control** partners in Iowa to use the Iowa Cancer Plan for planning, funding and advocacy.
- D** Coordinate with partners to ensure the use of consistent and accurate **cancer control** messages.
- E** Increase collaborative efforts among county public health departments.
- F** Increase the number and diversity of Iowans engaged in collaborative work through the Iowa Cancer Consortium.

DATA TARGETS

Increase the number of Iowa counties that are represented within the Iowa Cancer Consortium membership.

(Source: Iowa Cancer Consortium Wild Apricot Membership Database)



Increase the number of organizational Iowa Cancer Consortium members.

(Source: Iowa Cancer Consortium Wild Apricot Membership Database)



Increase the number of individual Iowa Cancer Consortium members.

(Source: Iowa Cancer Consortium Wild Apricot Membership Database)





Dashiell Codd

”

People in advocacy, people in research, people in public health and families need to work together...and need to understand differences and similarities. That's what's going to help us give [cancer] a voice.

Pamela Codd
Mother of Dashiell Codd
Caregiver and Advocate
Iowa City, Iowa

To view Pamela's story visit
www.canceriowa.org/stories



QUITLINE IOWA

1 800 QUIT NOW | 1 800 784 8669

*An example of an evidence-based tobacco cessation service is Quitline, which uses 2A's and an R when implementing tobacco interventions.

1. Ask about tobacco use.
2. Advise patients to quit.
3. Refer patients to Quitline Iowa.

For more information about Quitline Iowa, visit www.quitlineiowa.org or call 1-800-QUIT NOW

Goal 2

Decrease tobacco and nicotine use and exposure.

ACTIONS

- A** Educate the public, including parents, teachers, students, retailers and local leaders on the dangers of tobacco and nicotine products.
- B** Educate policy makers on the costs of tobacco and nicotine use, including loss of employee productivity and health care related expenses.
- C** Raise the minimum legal sale age of tobacco products to 21 years old.
- D** Increase referrals to and participation in evidenced-based tobacco cessation services* for all tobacco users, including **cancer survivors**.
- E** Increase the number of health care organizations using provider reminder systems to advise tobacco users to quit using tobacco.
- F** Collaborate with local Tobacco Community Partnerships to further tobacco prevention, cessation and control efforts.¹⁷
- G** Require that nicotine delivery devices, including **e-cigarettes**, be held to the same advertising, promotion and sponsorship standards as all other tobacco and nicotine products.
- H** Increase the tax on tobacco products.
- I** Maintain or increase funding to the Iowa Department of Public Health (IDPH) Division of Tobacco Use Prevention and Control to CDC-recommended levels for Iowa.^{18,19}
- J** Eliminate the casino exemption in the **Smokefree Air Act**.
- K** Increase the number of school districts, colleges/universities, workplaces, housing units and parks that implement comprehensive tobacco and nicotine-free policies.²⁰
- L** Advocate for policy that prohibits smoking in cars when minors are present.
- M** Increase the number of insurance plans covering evidence-based cessation services, **Nicotine Replacement Therapy** (NRT) and counseling.

DATA TARGETS

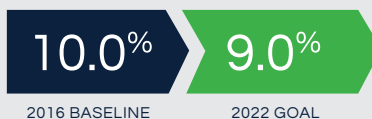
Decrease tobacco use among adults.

Percent of Current Smokers, All **Races**, Both Sexes, Ages 18+ (Source: BRFSS 2016²¹)



Decrease tobacco use among youth.

11th grade overall tobacco use rate including cigarettes, smokeless, cigars, pipes, and water pipes. (Source: Iowa Youth Survey 2016²²)



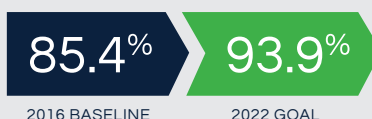
Decrease youth tobacco initiation.

Percentage of 11th grade students who have ever smoked tobacco or used any tobacco products (not including electronic cigarettes). (Source: Iowa Youth Survey 2016²²)



Increase the portion of Iowans who don't allow smoking inside their homes.

Which statement best describes the rules about smoking inside your home? 1. Smoking is not allowed anywhere inside your home. (Source: BRFSS 2016²¹)



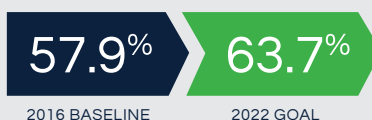
Increase adult cessation attempts.

Percent of Current Smokers Trying to Quit for a Day or More, All **Races**, Both Sexes, Ages 18+ (Source: BRFSS 2016²¹)



Increase the proportion of Iowans reporting no hours of exposure to secondhand smoke.

In a typical week at work, how many hours would you say that you are in a room or car with smoke from someone else's cigarettes, cigars, or pipe? Zero hours. (Source: BRFSS 2016²¹)



Decrease the **age-adjusted incidence** per 100,000 for lung cancer.

(Source: State Health Registry of Iowa³)



Decrease the **age-adjusted mortality** per 100,000 for lung cancer.

(Source: State Health Registry of Iowa³)



Goal 3

Increase efforts that support healthy eating, physical activity and healthy weight status.²³

ACTIONS

- A** Increase access to and availability of healthy food and beverage choices in public locations and private businesses, including grocery stores, convenience stores, schools, restaurants and workplaces.
- B** Require public and private venues including restaurants to label all food and drink products with nutritional information.
- C** Increase awareness and educate policy makers about **food swamps** and **food deserts** and their contribution to obesity.
- D** Implement policies that increase access to healthy food and decrease access to unhealthy food.
- E** Establish workplace and community policies that support breastfeeding.
- F** Improve community design and infrastructure to create environments that support increased physical activity.
- G** Support initiatives that increase opportunities for physical activity in schools and workplaces.
- H** Increase access to overweight and obesity screening and educate providers on the associated risk factors.
- I** Engage providers and patients in healthy weight management and best practices, including the role of nutrition and physical activity as part of cancer prevention, treatment and care.
- J** Support third-party reimbursement for primary care treatment of overweight and obesity from medical providers, registered dietitians and other qualified health care providers.

DATA TARGETS

Decrease proportion of adults who are overweight or obese.

Overweight or obese Iowans (body mass index greater than or equal to 25.0 kg/m²), All **Races**, Both Sexes, Ages 18+ (Source: BRFSS 2016²¹)

68.7%

2016 BASELINE

61.8%

2020 GOAL

Increase proportion of adults getting recommended levels of physical activity.

Iowans Getting Recommended Level of Physical Activity, All **Races**, Both Sexes, Ages 18+. Recommended physical activity was defined as either regular physical activity 30 or more minutes per day for 5 or more days per week or vigorous activity 20 or more minutes per day for 3 or more days per week. (Source: BRFSS 2015²⁴)

48.8%

2015 BASELINE

53.7%

2020 GOAL

Decrease proportion of adults who are obese.

Obese (body mass index greater than or equal to 30.0 kg/m²), All **Races**, Both Sexes, Ages 18+ (Source: BRFSS 2016²¹)

32.0%

2016 BASELINE

28.8%

2020 GOAL

Increase level of reported fruit and vegetable consumption among adults.

Percentage of Iowans Who Consumed Five or More Fruits/Vegetables per Day, All **Races**, Both Sexes, Ages 18+ (Source: BRFSS 2015²⁴)

13.5%

2015 BASELINE

14.9%

2020 GOAL

Goal 4

Decrease excessive alcohol consumption.

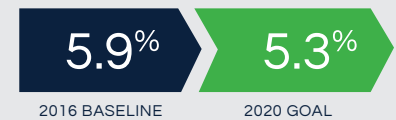
ACTIONS

- A** Increase education and awareness of the relationship between alcohol and cancer.
- B** Increase screening and treatment for **chronic heavy drinking**.²⁵
- C** Maintain limits on hours of alcohol sale in on premise settings such as bars and restaurants.²⁶
- D** Encourage the regulation of **alcohol outlet density**.²⁷

DATA TARGETS

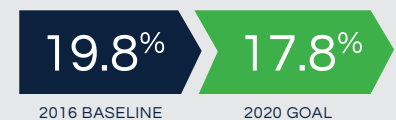
Decrease the percentage of adults in Iowa who are heavy drinkers.

The percentage of adults in Iowa who are heavy drinkers (defined as an average of greater than 14 drinks per week for men and seven drinks per week for women).
(Source: BRFSS 2015²⁴)



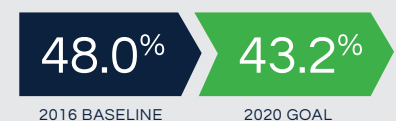
Decrease the percentage of adults in Iowa who report at least one binge drinking episode in the past 30 days.

The percentage of adults in Iowa who reported at least one binge drinking episode (defined as when a man drinks more than five drinks or a woman drinks more than four drinks on one occasion) in the past 30 days.
(Source: BRFSS 2015²⁴)



Decrease alcohol use among youth.

Percentage of 11th grade students who have ever used alcohol.
(Source: Iowa Youth Survey 2016²²)



Decrease youth alcohol initiation.

Percentage of 11th grade students currently using alcohol.
(Source: Iowa Youth Survey 2016²²)



Goal 5

Increase vaccination completion rates for all vaccines proven to reduce the risk of cancer.

ACTIONS

- A** Increase hepatitis B vaccination among high-risk populations.^{28, 29}
- B** Maintain or increase hepatitis B vaccination rates in children.³⁰
- C** Increase access and coverage to the **human papillomavirus (HPV)** vaccination series for populations recommended by the **Advisory Committee on Immunization Practices**.^{31, 32}
- D** Implement health care system strategies and office-based reminder systems to increase the number of patients who initiate and complete the HPV vaccination series.
- E** Increase public awareness of vaccines proven to reduce the risk of cancer.
- F** Support and collaborate with the Iowa Department of Public Health (IDPH) Immunization Program to increase reporting of all vaccines proven to reduce the risk of cancer in the **Immunization Registry Information System (IRIS)**.
- G** Add the HPV vaccine to physician-recommended vaccines at wellness checkups for recommended populations.
- H** Collaborate with school- and university-based clinics to offer the HPV vaccine.
- I** Encourage providers to strongly recommend the HPV vaccine as a cancer prevention vaccine.
- J** Reduce missed clinical opportunities to recommend and administer the HPV vaccine.

DATA TARGETS

Increase routine vaccination coverage levels for adolescent boys and girls aged 13 to 15.

Percentage of boys and girls aged 13-15 in the IRIS system that have up-to-date 3-1-2-1-2 coverage. (Source: Iowa Immunization Program Annual Report 2016³³)

58.0%

2016 BASELINE

63.8%

2022 GOAL

Increase number of adolescents vaccinated against hepatitis B.

Percentage of adolescent boys and girls aged 13-15 in the IRIS system who have completed the Hepatitis B vaccine doses. (Source: Iowa Immunization Program Annual Report 2016³³)

89.0%

2016 BASELINE

97.9%

2022 GOAL

Increase number of children aged 2 years vaccinated against hepatitis B.

Percentage of boys and girls aged two in the IRIS system who have completed the Hepatitis B vaccine doses. (Source: Iowa Immunization Program Annual Report 2016³³)

87.0%

2016 BASELINE

95.7%

2022 GOAL

Increase number of boys and girls aged 13 to 15 vaccinated against HPV.

Percentage of adolescent boys and girls aged 13-15 in the IRIS system who have completed the HPV vaccine doses. (Source: Iowa Immunization Program Annual Report 2016³³)

27.0%

2016 BASELINE

29.7%

2022 GOAL



Goal 6

Increase protective behaviors from sun/ultraviolet (UV) exposure.

ACTIONS

- A** Increase awareness of the harms of ultraviolet exposure.
- B** Increase availability of sunscreen at outdoor events.
- C** Increase targeted skin cancer education for Iowans who work outside.
- D** Decrease the use of tanning beds.
- E** Increase public education about the harms of exposure to ultraviolet light from tanning beds.
- F** Increase the number of schools that educate children about the risks of sun/ultraviolet exposure using evidence-based programs.
- G** Advocate for prohibiting the use of tanning beds for all Iowans under the age of 18.
- H** Promote policies that advance sun/ultraviolet safety measures such as the use of sunglasses, hats, sun shades, trees, and/or other protective means.



The American Cancer Society recommends taking the following steps to stay safe in the sun:

- Cover up.
- Use a broad-spectrum sunscreen with an SPF 30 or higher.
- Seek shade.
- Avoid tanning bed and sunlamps.

For more information on sun safety visit:
<https://www.cancer.org/healthy/be-safe-in-sun.html>

DATA TARGETS

Decrease the **age-adjusted incidence** per 100,000 for skin melanoma.

Skin Melanoma **incidence** has been on an upward trend. While the 2022 target is higher than the baseline, it is a reduction of the projected 2022 rate. (See Table 1) (Source: State Health Registry of Iowa³)

24.9

2012-2014
BASELINE

27.5

2022 GOAL

Decrease the **age-adjusted mortality** per 100,000 for skin melanoma.

(Source: State Health Registry of Iowa³)

2.9

2012-2014
BASELINE

2.7

2022 GOAL

Decrease the percentage of high school students who use an indoor tanning device such as a sunlamp, sunbed or tanning booth one or more times during the past 12 months.

Baseline and targets are not included because this data is not currently collected in Iowa. (Source: Youth Risk Behavior Survey)

TBD%

2018 BASELINE

TBD%

2022 GOAL

Decrease the percentage of high school students who most of the time or always wear sunscreen with an SPF 15 or higher when they are outside for more than one hour.

Baseline and targets are not included because this data is not currently collected in Iowa. (Source: Youth Risk Behavior Survey)

TBD%

2018 BASELINE

TBD%

2022 GOAL



To view Paula's story visit
www.canceriowa.org/stories

”

I use my story to talk to kids and teens about sun-safety and tanning bed dangers. Melanoma is highly treatable if caught in its earliest stages. In our small town, you can ask anyone if they've been to the dermatologist in the past year and they'll say 'yes.'

Paula Schnack
Cancer Survivor
Oakland, Iowa

Goal 7

Decrease exposure to radon and other environmental substances linked to cancer.

ACTIONS

- A** Increase the percentage of Iowans who test their homes for **radon** and mitigate when needed.*
- B** Educate the public, health care providers, public health officials, schools, property owners and managers and policy makers about **radon** and other environmental substances linked to cancer.
- C** Collaborate with cities and housing departments to develop initiatives that provide financial assistance for **radon** testing and mitigation.
- D** Develop and support cross-sector initiatives that increase home **radon** testing and mitigation.
- E** Require **radon** testing and mitigation in schools, multi-housing units, rental housing and new construction.
- F** Require newly constructed homes and buildings to be built using **passive radon control methods** according to the **2015 International Residential Building Code**.³⁴
- G** Support research and funding to increase the evidence for environmental cancer risks.³⁵
- H** Support initiatives that reduce environmental exposures to substances or chemicals linked to cancer.



*EPA strongly recommends that you fix your home if your test shows 4 picocuries (pCi/L) or more. If your test shows between 2 and 4 pCi/L, consider fixing.³⁶

DATA TARGETS

Decrease the **age-adjusted incidence** per 100,000 for lung cancer.

(Source: State Health Registry of Iowa³)

63.2

2012-2014
BASELINE

49.1

2022 GOAL

Decrease the **age-adjusted mortality** per 100,000 for lung cancer.

(Source: State Health Registry of Iowa³)

45.3

2016 BASELINE

41.7

2022 GOAL

Increase the percent of households who have tested for **radon** gas.

(Source: TBD)

TBD%

2016 BASELINE

TBD%

2022 GOAL

Increase the number of home mitigations performed by certified contractors.

(Source: TBD)

TBD

2016 BASELINE

TBD

2022 GOAL



My mom never really said the C word... we knew what she had because she had a lumpectomy, but we didn't know her family history at all. When Shae found out she had breast cancer, one of the things she was upset about was not knowing her family history... we need to make sure everyone knows their family history.

Cathy Ketton Founder of Splash of Color Cancer Support Group and mother of Niisha and ShanQuiesha Robinson breast cancer survivors and advocates. Waterloo, Iowa

To view Cathy, Niisha and ShanQuiesha's story visit: www.canceriowa.org/stories

Goal 8

Increase access to cancer risk assessment and genetic counseling services.

ACTIONS

- A** Increase education and awareness of **genetic counseling** and testing and their roles in providing information on cancer risk management, screening and treatment.
- B** Encourage health insurance plans to cover **cancer risk assessment** and **genetic counseling** services.
- C** Encourage providers to discuss family history with patients to inform better screening recommendations and determine if **genetic counseling** is appropriate.
- D** Increase advocacy and funding for cancer genetic research.
- E** Advocate for an increased focus on genetic/genomic education for providers through initial training and continued education.
- F** Promote **Advanced Genetics Nursing-Board Certified** (AGN-BC) and Certified Genetic Counselor (CGC) credentialing to increase access to providers trained in cancer **genetic counseling**.
- G** Advocate for the licensing of genetic counselors in Iowa.

DATA TARGETS

Increase the number of licensed Genetic Counselors in Iowa.

Currently the state of Iowa does not license genetic counselors; the target established is based on the number of certified genetic counselors at time of print. (Source: National Society of Genetic Counselors³⁷)



Goal 9

Increase understanding of and adherence to recommended cancer screening guidelines.

ACTIONS

- A** Educate the public about the importance of cancer screening guidelines.*
- B** Increase screening rates among populations who are eligible.
- C** Increase access to recommended cancer screenings.
- D** Encourage workplaces to educate employees about regular cancer screenings.
- E** Promote and support programs that provide free or low-cost recommended screenings to people who are **uninsured** or **underinsured**.
- F** Encourage providers, clinics and systems to use evidence-based strategies, such as system-based patient reminder tools, to increase cancer screenings.



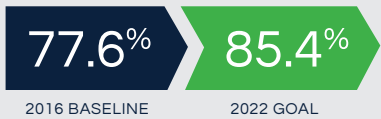
* Two sources of evidence-based cancer screening guidelines are:

1. The **American Cancer Society**
www.cancer.org/healthy/find-cancer-early/cancer-screening-guidelines/american-cancer-society-guidelines-for-the-early-detection-of-cancer.html
2. The **United States Preventive Services Taskforce**⁷²
www.uspreventiveservicestaskforce.org/BrowseRec/Index

DATA TARGETS

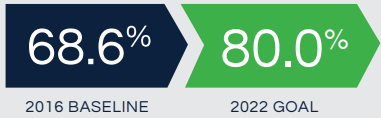
Increase the percent of women between 50-74 years of age who have had a mammogram in the past two years.

(Source: BRFSS 2016²¹)



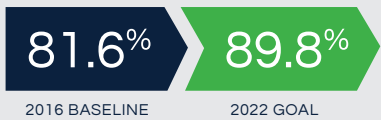
Increase the percent of people age 50-75 years of age who had a colorectal screening test.

Proportion of people 50-75 years of age with stool test in past year OR colonoscopy within past 10 years OR sigmoidoscopy within past five years. (Source: BFRSS 2016²¹)



Increase the percent of women age 21 years and older who had a Pap test within the past three years.

Proportion of women 21 years of age and older who have had a Pap test in past three years. (Source: BFRSS 2016²¹)





”

I've had people tell me they're not going to get a colonoscopy. If you knew somebody who has died from [colorectal cancer] and you know they could have been screened...all of a sudden that prep is not such a big deal...because it can literally change your life.

David McCluskey
Cancer Survivor
West Des Moines, Iowa

To view David's story visit
www.canceriowa.org/stories

Goal 10

Increase access to quality cancer care and services.

ACTIONS

- A** Increase availability of culturally and linguistically appropriate cancer education materials.
- B** Increase access to transportation and lodging resources available to cancer patients and their families.
- C** Increase available clinical hours for cancer screenings, treatment and other services.
- D** Increase availability of **telemedicine** services and infrastructure.
- E** Increase access to genetic tumor testing to identify the most appropriate treatment for patients.
- F** Increase availability of targeted therapy treatment options.
- G** Provide free or reduced-cost cancer services for **underinsured** or **uninsured** Iowans.
- H** Increase patient access to copay and financial counseling assistance.
- I** Increase in-person translation services available to all patients and families requesting them.



DATA TARGETS

Increase the percentage of survivors living 5 years after their initial cancer diagnosis.

Percentage of people who survived at least 5 years after their cancer diagnosis, Iowa, 2007-2010 (Source: State Health Registry³⁾)

66.4%

2007-10 BASELINE

73.0%

2022 GOAL

Maintain the number of American College of Surgeons approved cancer programs in Iowa.

(Source: American College of Surgeons Commission on Cancer³⁸)

14

PROGRAMS

2016 BASELINE

14

PROGRAMS

2022 GOAL

Decrease the percentage of Iowans with no health insurance.

(Source: U.S. Bureau of the Census, Health Insurance Coverage in the United States: 2015 Current Population Reports. 2016³⁹)

5%

2015 BASELINE

0%

2022 GOAL

See table 1 for more **incidence** and **mortality** data targets.



”

I had to travel three and a half hours for treatment. We had to plan trips [to the hospital] as smart as we could. It takes a lot out of you and those expenses add up.

Meg Beshey
Cancer Survivor
Fort Dodge, Iowa

To view Meg's story visit
www.canceriowa.org/stories

Goal 11

Increase the number of oncology and other health care providers trained and practicing in Iowa.

ACTIONS	DATA TARGETS
A Advocate for competitive salaries in Iowa for oncology and other health care providers involved in cancer control. B Support continuing education opportunities for oncology and other health care providers involved in cancer control. C Increase the number of research scientists, including basic researchers and other professionals involved in population science research. D Increase the number of health systems that reimburse tuition for health care providers practicing in Iowa. E Increase the number of oncology and other health care providers in cancer control who move to Iowa to practice. F Support self-care practices for health care providers, including resiliency training and physical and mental well-being.	Increase the number of community health workers, cancer patient navigators and cancer care coordinators in the workforce. (Source: TBD) TBD 2016 BASELINE TBD 2022 GOAL



*Several groups in Iowa including the NCI Community Oncology Program (NCORP) and The University of Iowa Holden Comprehensive Cancer Center participate in the NCI's **National Clinical Trials Network** (NCTN). Population-based and observational clinical research studies are also being conducted across the state of Iowa. Data from some of these studies allows for monitoring the burden of cancer in the state.

In addition to the activities above, the Holden Comprehensive Cancer Center does basic cancer research and conducts first-in-human clinical trials.

This research was valuable in identifying the **cancer control** priorities described in this plan.

For more information on the NCTN, visit www.cancer.gov/research/areas/clinical-trials/nctn

For more information on NCORP, visit www.ncorp.cancer.gov

For more information on NCI-designated cancer centers, visit www.cancer.gov/research/nci-role/cancer-centers

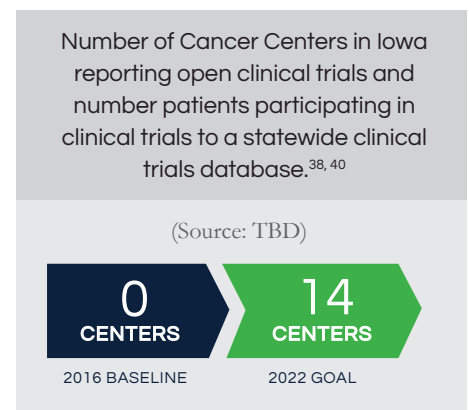
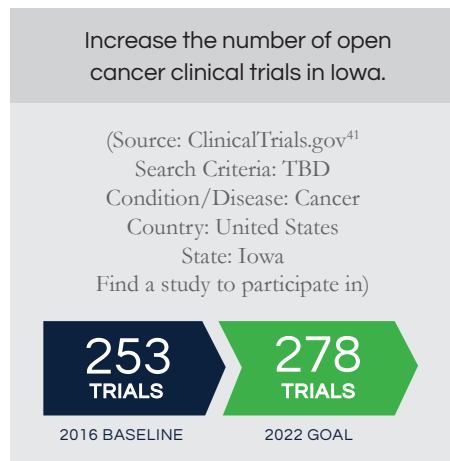
Goal 12

Increase awareness of and participation in cancer research, including clinical trials, focused on cancer prevention, early detection and treatment.

ACTIONS

- A** Support all phases of cancer research across the state including laboratory research, clinical trials and population research.*
- B** Expand reach of community oncology practices clinical research programs through increasing the reach of NCI clinical trial networks.
- C** Link clinical research efforts of Iowa's NCI-designated Holden Comprehensive Cancer Center at the University of Iowa with collaborating practices throughout the state for access to emerging treatment and **interventions** offered through clinical trials.
- D** Develop and disseminate education campaigns to inform the public about research, including clinical trials.
- E** Create a statewide clinical trials database.
- F** Increase accessibility of cancer clinical trials to all cancer patients.
- G** Support policies and systems changes that expand access to and use of cancer clinical trials.
- H** Build or sustain **coalitions** with key stakeholders to enhance support for cancer research and the availability of cancer clinical trials.
- I** Increase collaboration between researchers to better translate research findings into practice.

DATA TARGETS



Goal 13

Increase access to and awareness of quality-of-life services available to cancer patients during and after cancer treatment.

ACTIONS

- A** Increase financial assistance programs and resources for cancer patients, families and caregivers.
- B** Educate health care providers on financial resources available to patients.
- C** Educate the public and providers on the benefits of advance care plans.
- D** Educate health care providers, patients, caregivers and the community on the benefits of **hospice care**.
- E** Educate health care providers, patients, caregivers and the community on the benefits of starting **palliative care** at the time of a cancer diagnosis.
- F** Encourage payers to provide coverage for transportation and mental health care for cancer patients, families and caregivers.
- G** Increase access to **palliative care** services for all cancer patients and increase access to hospice services for patients facing end of life.
- H** Increase awareness and use of **survivorship care plans**.
- I** Increase patient and caregiver awareness of and access to **psychosocial**, wellness, financial, sexual, spiritual, rehabilitation and community-based support services.
- J** Train health care providers on how to communicate difficult information, including end-of-life conversations.
- K** Educate health care providers on the importance of early and regular conversations with patients on goals of care, including patients' cultural preferences.
- L** Educate health care providers, patients, families and communities on the specific and unique needs of **cancer survivors**, including sexual health, physical activity, nutrition, fertility, depression and anxiety.
- M** Encourage providers to recognize and address unique needs of childhood, adolescent and young adult cancer population including **survivorship**, late effects of treatment, employment, education and financial barriers.
- N** Implement best practices for transition from active cancer treatment to post-treatment care and hospice services.
- O** Increase resources and support for the unique needs of caregivers.

DATA TARGETS

Increase the number of Iowa hospitals with a **palliative care** program.

(Source: Center to Advance Palliative Care 2015, America's Care of Serious Illness: A State-by-State Report Card on Access to Palliative Care in Our Nation's Hospitals.⁴²)



Maintain the state grade for pain policies.

(Source: Pain & Policy Studies Group 2013, Achieving Balance in State Pain Policy: A Progress Report Card⁴³)



”

It's hard to have to realize that the person who had been your foundation and had been taking care of you your whole life; now you have to do that for them. But it's something I was so glad I was able to do for my mom.

Jill Lightfoot
Caregiver and Physician
Bettendorf, Iowa

To view Jill's story visit
www.canceriowa.org/stories

Goal 14

Improve the health equity of cancer control interventions and services.

ACTIONS

- A** Identify and change institutional and structural systems that promote or reinforce activities, behaviors, attitudes and/or biases that contribute to inequitable cancer outcomes.
- B** Promote the use of evidence-based strategies and activities to reduce bias, discrimination and racism in health care settings.
- C** Support initiatives that provide training and education about the impact of discrimination and racism on Iowans navigating health care, including topics related to **cultural humility**, privilege and power dynamics.
- D** Increase representation and engagement of marginalized people in the development and implementation of **cancer control** activities.
- E** Increase the number of culturally specific health care settings.⁴⁴
- F** Increase the use of health literate practices in all **cancer control** activities.⁴⁵
- G** Address social determinants of health in project and **intervention** planning.

DATA TARGETS

Increase number of Iowa Cancer Consortium member organizations who predominately serve minority populations to inform culturally-specific **cancer control** and prevention activities.⁴⁶

(Source: Iowa Cancer Consortium Wild Apricot Membership Database)



Goal 15

Increase access to cancer-related data, and educate Iowans on ways to apply data to cancer control activities.

ACTIONS

- A** Promote analysis of current data-collection systems to better identify existing data gaps and disparities within Iowa communities.
- B** Encourage data sharing across organizations that track risk factors and diseases linked to cancer.
- C** Educate **cancer control** partners on available data sources and methods of interpreting data to inform **cancer control** programs and initiatives.
- D** Standardize the collection and reporting of **race**, ethnicity, preferred language and country of origin for cancer-related datasets.⁴⁷
- E** Engage under-represented communities in identifying critical data gaps.³⁰

DATA TARGETS

Number of Iowa Cancer Plan goals that have meaningful measures of success.

(Source: Iowa Cancer Plan 2018-2022)



Evaluation Plan

The Iowa Cancer Consortium, along with its partners, recognize that evaluation is an important part of measuring progress towards reducing the burden of cancer.

The Consortium has developed a five year evaluation plan to measure the impact of the 2018-2022 Iowa Cancer Plan. The data targets within the plan provide a simple way of evaluating progress. However, some goals have no associated data measure, which creates a unique challenge in measuring progress. Targets for these goals have been created that call for the identification, collection and reporting of data that can be used as baselines in the future.

The Iowa Cancer Plan will be evaluated following guidelines recommended in the CDC's Comprehensive **Cancer Control** Branch Program Evaluation Toolkit which outlines three main focus areas:

- **Partnerships:** the quality, contributions and impacts of your comprehensive **cancer control coalition**.
- **Plan:** the quality and implementation of the statewide comprehensive **cancer control** plan.
- **Program:** the extent to which **interventions** outlined in your comprehensive **cancer control** plan are executed and yield intended results.⁴⁸

The Iowa Cancer Consortium is dedicated to working with all Iowans to reduce the burden of cancer in Iowa. By continually evaluating the progress of the 2018-2022 Iowa Cancer Plan, comprehensive **cancer control** efforts can be improved along with the health and **quality of life** of all Iowans.

Glossary

2015 INTERNATIONAL RESIDENTIAL BUILDING CODE:

Created by The International Code Council to set standards and codes used to construct residential and commercial buildings. This document outlines **radon mitigation** standards, primarily for new building construction.²⁶ For more information, visit: https://up.codes/viewer/general/int_residential_code_2015/chapter/F#F

AGE-ADJUSTED: Also known as age standardization. It is a technique used to allow populations to be compared when the ages of populations being compared are different.

ADVANCE CARE PLANNING: Making decisions about the care a person would prefer if they were eventually unable to speak for themselves. These decisions are based on personal values, preferences and discussions. For more information, visit <https://www.nhpco.org/advance-care-planning>.

ADVANCED GENETICS NURSING-BOARD CERTIFIED (AGN-BC): Credentials given to licensed professional nurses with special education and training in genetics.

ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES (ACIP): A group of medical and public health experts who develop recommendations on the use of vaccines in the United States. The recommendations stand as public health guidance for safe use of vaccines and related biological products.⁵⁰ For more information, visit <https://www.cdc.gov/vaccines/acip/about.html>.

ALCOHOL OUTLET DENSITY: Applying licensing or zoning regulations to reduce the number of businesses who can sell alcohol in a given area.

AMERICAN CANCER SOCIETY: A global grassroots organization of 2 million volunteers whose mission is to save lives, celebrate lives, and lead the fight for a world without cancer.⁵¹ To learn more visit www.cancer.org

BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS): “The nation’s premier system of health-related telephone surveys that collect state data about United States residents regarding their health-related risk behaviors, chronic health conditions and use of preventive services.”⁵² For more information, visit <https://www.cdc.gov/brfss/index.html>.

CANCER BURDEN: A measure of the **incidence** of cancer within the population and an estimate of the financial, emotional or social impact it creates.

CANCER CARE PLAN: A plan of professional clinical activities developed to describe the treatment regimen and arrangements for a person with cancer.

CANCER CONTINUUM: Also called the **Cancer Control Continuum**. The term describes the delivery of care throughout prevention, detection/screening, diagnosis, treatment, **survivorship** and end of life. An individual may move forward and back along the continuum several times before staying in survivorship or progressing to end of life.

CANCER CONTROL: A public health approach aimed at reducing the burden of cancer in a population. This is done using evidence-based and cost-effective **interventions** throughout the **cancer continuum** to ultimately reduce suffering to patients and their families.

CANCER RISK ASSESSMENT: Usually divided into two major categories: assessment of familial or genetic risk and assessment of environmental factors that may be causally related to cancer. Evaluation of familial risk should include both maternal and paternal lineages, with specific attention to cancers that co-exist in known hereditary cancer syndromes. Evaluation of environmental factors should focus on assessment of known modifiable factors, such as smoking, obesity, diet and physical activity.⁵³

CANCER SURVIVOR: Anyone affected by cancer, including the individual diagnosed, family, friends and caregivers.

COALITION: A group or groups of people who have joined together for a common purpose.

CHRONIC HEAVY DRINKING: Having more than four drinks on any day for men and more than three drinks on any given day for women. It is also defined as greater than 14 drinks per week for men and seven drinks per week for women.¹⁸ For more information, visit <https://www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/Is-your-drinking-pattern-risky/Whats-At-Risk-Or-Heavy-Drinking.aspx>

CLINICAL TRIAL: A type of research study that tests how well new medical approaches work in people. These studies test new methods of screening, prevention, diagnosis or treatment of a disease.

COMPLETE STREETS: Streets designed to enable safe access for all users. They may include bike lanes, sidewalks, bus lanes, frequent and safe crossing opportunities and median islands.

CREED: A system of religious beliefs.

CULTURAL HUMILITY: “Ability to maintain an interpersonal stance that is other-oriented (or open to the other) in relation to aspects of cultural identity that are most important to the [person].”⁵⁴ For more information, visit <http://www.apa.org/pi/families/resources/newsletter/2013/08/cultural-humility.aspx>.

E-CIGARETTES: Electrical devices that mimic the act of smoking tobacco and create an inhaled mist. Also known as electronic cigarettes, they are marketed as a smoking-cessation tool, but may have negative health effects.

EVIDENCE-BASED PUBLIC HEALTH: The development, implementation and evaluation of effective programs and policies in public health. This is done through the application of principles of scientific reasoning. Evidence-based public health includes the appropriate use of behavioral science theory and program planning models.

FOOD DESERT: Areas in the country where there is limited access to affordable and nutritious foods.

FOOD SWAMP: A place where unhealthy foods are readily available and there is a disproportionate amount of advertising for unhealthy foods.

GENDER IDENTITY: One’s innermost concept of self as male, female, a blend of both or neither – how individuals perceive themselves and what they call themselves. One’s gender identity can be the same or different from their sex assigned at birth.⁵⁵ For more information, visit <http://www.hrc.org/resources/sexual-orientation-and-gender-identity-terminology-and-definitions>.

GENETIC COUNSELING: A communication process between a specially trained health professional and a person concerned about the genetic risk of disease. The person’s family and personal medical history may be discussed, and counseling may lead to **genetic testing**.⁵⁶

GENETIC TESTING: “The use of a laboratory test to look for genetic variations associated with a disease. The results of a genetic test can be used to confirm or rule out a suspected genetic disease or to determine the likelihood of a person passing on a mutation to their offspring.”⁵⁷

HEALTH DISPARITIES: “A particular type of health difference that is closely linked with social, economic and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; **sexual orientation** or **gender identity**; geographic location; or other characteristics historically linked to discrimination or exclusion.” For more information, visit <https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities>.

HEALTH EQUITY: “The attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices and the elimination of health and health care disparities.”⁴² For more information visit <https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities>.

HEALTH LITERACY: “The degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.”³⁰ For more information, visit: <https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication>

HEALTH POLICY: Decisions, plans and actions that are undertaken to achieve specific health care goals within a society. An explicit health policy can achieve several things: it defines a vision for the future which in turn helps to establish targets and points of reference for the short and medium term. It outlines priorities and the expected roles of different groups; and it builds consensus and informs people.⁵⁹ For more information, visit http://www.who.int/topics/health_policy/en/.

HOSPICE CARE: Providing humane and compassionate care focusing on the **quality of life** rather than the length of life, it includes care for people in the last phases of incurable disease so that they may live as fully and comfortably as possible.⁶⁰ For more information, visit <https://www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team/hospice-care/what-is-hospice-care.html>.

HUMAN PAPILLOMAVIRUS (HPV): There are more than 100 types of HPV that can infect the genital areas, mouths, and throats of males and females. Nearly all cervical cancers are caused by HPV.

IMMUNIZATION REGISTRY INFORMATION SYSTEM

(IRIS): A computerized tracking program that documents immunizations for children, adolescents and adults who are seen in a variety of public and private health care provider sites throughout the state. The IRIS program is able to document individual immunizations, track vaccine usage and vaccine distribution.⁶¹ For more information, visit <https://idph.iowa.gov/immtnb/immunization/iris>

INCIDENCE: The occurrence, rate or frequency of disease.

INTERVENTION: An action taken to improve a situation. In this plan, intervention usually refers to an action taken by public health or health care professionals to improve health.

LATE EFFECTS: Health problems that occur months or years after cancer treatment is completed.⁷¹ For more information, visit <https://www.cancer.gov/types/childhood-cancers/late-effects-pdq>.

MEDICAL HOME: An approach to providing comprehensive primary care. It is a health care setting that facilitates partnerships between patients, physicians and caregivers. Also known as a Patient-Centered Medical Home.

MISSED CLINICAL OPPORTUNITY: “A clinical encounter where the patient received at least one adolescent vaccination, but not another.”⁶² For more information, visit <http://www.sciencedirect.com/science/article/pii/S240585211630012X>.

MORTALITY: “The relative frequency of deaths in a specific population.”⁶³

NATIONAL CANCER INSTITUTE (NCI): The National Cancer Institute is part of the National Institutes of Health (NIH), which is part of the federal government. NCI offers many services for **cancer survivors** including the Cancer Information Service.

NATIONAL CLINICAL TRIALS NETWORK (NCTN):

Previously known as the NCI **Clinical Trials** Cooperative Group Program, the NCTN is a **National Cancer Institute (NCI)** program that gives funds and other support to cancer research organizations to conduct cancer clinical trials. The NCTN helps these organizations develop new clinical trials and manage their regulatory, financial, membership, and scientific committees. It also helps with statistics and data management, Institutional Review Boards (IRBs), and patient tissue sample collection and storage. This support allows researchers to conduct trials that focus on specific cancers and patient populations and new treatment methods.⁶⁴ For more information, visit <https://www.cancer.gov/research/areas/clinical-trials/nctn>.

NCI COMMUNITY ONCOLOGY RESEARCH PROGRAM

(NCORP): A national network of cancer care investigators, providers, academia and other organizations that brings cancer prevention clinical trials and cancer care delivery research (CCDR) to people in their communities.⁶⁵ For more information, visit <https://ncorp.cancer.gov/>

NCI-DESIGNATED COMPREHENSIVE CANCER CENTER:

A designation given to a cancer center from the **National Cancer Institute's** Cancer Centers Program. NCI-Designated Cancer Centers are recognized for their scientific leadership, resources, and the depth and breadth of their research in basic, clinical and/or population science. Comprehensive Cancer Centers demonstrate an added depth and breadth of research, as well as substantial transdisciplinary research that bridges these scientific areas.⁶⁶ For more information, visit <https://www.cancer.gov/research/nci-role/cancer-centers>

NICOTINE REPLACEMENT THERAPY (NRT): The use of chewing gum, patches, sprays, inhalers or lozenges that contain nicotine, but do not contain other harmful chemicals in tobacco. NRT helps tobacco users quit using tobacco and can help relieve some withdrawal symptoms associated with efforts to quit using tobacco.

PALLIATIVE CARE: Care given to improve the **quality of life** of patients who have a serious or life-threatening disease. The goal of palliative care is to prevent or treat as early as possible the symptoms of a disease, side effects caused by treatment of a disease, and psychological, social, and spiritual problems related to a disease or its treatment. Also called comfort care, supportive care and **symptom management**.

PASSIVE RADON CONTROL METHODS: Typically installed during the construction of new homes, a passive **radon** control system is a vent pipe extending from the sub-slab gravel up through the roof. It uses natural pressure differentials and air currents to mitigate radon.

PSYCHOSOCIAL: Describes the psychological, social and spiritual aspects of human activity.

QUALITY OF LIFE: The overall enjoyment of life, including an individual's sense of wellbeing and ability to carry out various activities.

QUITLINE IOWA: A statewide toll-free evidence-based smoking-cessation hotline.⁶⁷ For more information, call 1-800-QUIT-NOW (1-800-784-8669), or visit <https://www.quitlineiowa.org/>.

RACE: A socially constructed classification of humans into groups based on physical traits, ancestry, genetics, social relations or the relations between those groups.

RADON: A radioactive gas found in outdoor and indoor air at various concentrations. It is the second leading cause of lung cancer after smoking and the number-one leading cause of lung cancer among non-smokers.

RADON MITIGATION: Any process or action that is done to reduce radon levels in a building or home.

SECONDHAND SMOKE: A mixture of two forms of smoke that come from burning tobacco: side stream smoke and mainstream smoke. Side stream smoke comes from the end of a lighted cigar, pipe, or cigarette. Mainstream smoke is exhaled by a smoker.

SEXUAL ORIENTATION: An inherent or fixed emotional, romantic or sexual attraction to other people.³⁹ For more information, visit <http://www.hrc.org/resources/sexual-orientation-and-gender-identity-terminology-and-definitions>.

SMOKEFREE AIR ACT: In 2008, the Iowa legislature passed a law to protect employees and the general public from **secondhand smoke**. The act prohibits smoking in almost all public places, enclosed areas within places of employment, and some outdoor areas. For more information, visit <https://smokefreeair.iowa.gov/>.

SMOKING CESSATION: Discontinuing the practice of smoking.

SURVEILLANCE, EPIDEMIOLOGY AND END RESULTS (SEER): A **National Cancer Institute** (NCI) cancer statistics program that provides information on cancer data in an effort to reduce the **cancer burden** among the United States population. For more information, visit <https://seer.cancer.gov/>⁶⁹

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

SURVIVORSHIP CARE PLAN: The **survivorship** care plan describes any ongoing issues that need to be addressed, and describes the cancer care the patient received. In other words, the Survivorship Care Plan includes the treatment plan and treatment summary, as well as information on follow-up care and ongoing concerns.⁷⁰ For more information, visit <https://www.journeyforward.org/what-is-cancer-survivorship-care-planning>.

SYMPTOM MANAGEMENT: Care given to improve the **quality of life** of patients who have a serious or life-threatening disease. The goal of symptom management is to prevent or treat as early as possible the symptoms of a disease, side effects caused by treatment of a disease, and psychological, social, and spiritual problems related to a disease or its treatment. Also called comfort care, **palliative care** and supportive care.

TELEMEDICINE: The use of telecommunications technology to diagnose and treat patients remotely.

UNDERINSURED: Having inadequate health insurance coverage.

UNINSURED: Not covered by health insurance.

UNITED STATES PREVENTIVE SERVICES TASKFORCE (USPSTF): An independent panel of experts in primary care and prevention that systematically reviews the evidence of effectiveness and develops recommendations for clinical preventive service.⁷² For more information, visit <https://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/index.html>



References

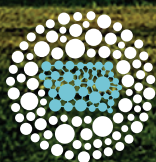
1. Iowa Cancer Consortium. Iowa Cancer Consortium Brand Identity Guildelines. (2017, August 18). Retrieved August 18, 2017, from <http://canceriowa.org/ICC/files/a1/a15b1f58-71e1-458f-911b-d1bd27e5a0c7.pdf>
2. Iowa Cancer Registry. 2017 Cancer in Iowa. (2017, March). Retrieved August 22, 2017, from www.public-health.uiowa.edu/shri/wp-content/uploads/2016/12/Cancer_in_Iowa_2017.pdf
3. State Health Registry of Iowa. (2017). Cancer **incidence** and **mortality** rates in Iowa (SEER*Stat 8.3.4).
4. U.S. Department of Health and Human Services. (n.d.). Cancer. Retrieved August 31, 2017, from www.healthypeople.gov/2020/topics-objectives/topic/cancer/objectives
5. **National Cancer Institute**. Cancer Trends Progress Report. (n.d.). Retrieved August 18, 2017, from <https://progress-report.cancer.gov/prevention>
6. Centers for Disease Control and Prevention. United States Cancer Statistics: Data Visualizations. (n.d.). Retrieved August 18, 2017, from <https://nccd.cdc.gov/USCSDDataViz/rdPage.aspx>
7. Meester, R. G. S., Doubeni, C. A., Zauber, A. G., Goede, S. L., Levin, T. R., Corley, D. A., Jemal, A. and Lansdorp-Vogelaar, I. (2015), Public health impact of achieving 80% colorectal cancer screening rates in the United States by 2018. *Cancer*, 121: 2281–2285. doi:10.1002/cncr.29336
8. U.S. Department of Health and Human Services. Cancer. (n.d.). Retrieved August 18, 2017, from www.healthypeople.gov/2020/topics-objectives/topic/cancer
9. Iowa State Government. Latest Iowa Population Estimates from the U.S. Census Bureau. (n.d.). Retrieved August 18, 2017, from www.statelibraryofiowa.org/archive/2015f/15j/062615-popestimates
10. Artiga, A. 1. (2017, August 17). Retrieved August 18, 2017, from www.kff.org/disparities-policy/issue-brief/disparities-in-health-and-health-care-five-key-questions-and-answers/#-footnote-195310-17
11. U.S. Department of Health and Human Services. Social Determinants of Health. (n.d.). Retrieved August 18, 2017, from www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health
12. Iowa State Government. Iowa Quick Facts. (n.d.). Retrieved August 18, 2017, from www.iowadatacenter.org/quickfacts
13. U.S. Department of Health and Human Services. Data by Geography - Iowa. (n.d.). Retrieved August 18, 2017, from <https://datawarehouse.hrsa.gov/Tools/DataByGeographyResults.aspx?geoTyp=State&geoCd=19>
14. Kagawa-Singer, M., Valdez Dadia, A., Yu, M. C. and Surbone, A. (2010), Cancer, Culture, and **Health Disparities**: Time to Chart a New Course?. *CA: A Cancer Journal for Clinicians*, 60: 12–39. doi:10.3322/caac.20051
15. Krob, G., & Iowa Data Center. (2016, June). Iowa's Changing Demographics. Retrieved August 30, 2017, from www.legis.iowa.gov/docs/publications/SI/794317.pdf
16. LGBT Health Link. (n.d.). Cancer in LGBT Communities. Retrieved August 30, 2017, from www.lgbthealthlink.org/FactSheets/LGBTCommunities
17. American Lung Association in Iowa. Home. (n.d.). Retrieved August 18, 2017, from www.tobaccofreepartnership.com/
18. Centers for Disease Control and Prevention. (2014, April 24). Best Practices for Comprehensive Tobacco Control Programs—2014. Retrieved August 30, 2017, from www.cdc.gov/tobacco/stateandcommunity/best_practices/
19. American Lung Association. (2017). State Grades. Retrieved August 30, 2017, from www.lung.org/our-initiatives/tobacco/reports-resources/sotc/state-grades/
20. Iowa Department of Public Health. Smoke Free Homes. (n.d.). Retrieved August 18, 2017, from <https://smokefree-homes.iowa.gov/secondhand-smoke/tobacco-free-and-nicotine-free-places/k-12-schools-and-colleges>
21. Iowa Department of Public Health. (2017) Health in Iowa Annual Report, from the **Behavioral Risk Factor Surveillance System**, 2016. Des Moines, IA. Received ahead of print.
22. Iowa Department of Public Health, Iowa Department of Human Rights, & Iowa Consortium for Substance Abuse Research and Evaluation. (2017). 2016 Iowa Youth Survey. Retrieved September 09, 2017, from www.iowayouthsurvey.iowa.gov/images/2016_State/IYS%202016%20State%20Report.pdf

23. Iowa Department of Public Health. Iowa Department of Public Health: Obesity Statewide Strategic Plan. (n.d.). Retrieved August 18, 2017, from https://idph.iowa.gov/Portals/1/userfiles/38/Obesity%20Statewide%20Strategy%2C%20Final_v6_29_16.pdf
24. Iowa Department of Public Health. (2016, November). Health in Iowa Annual Report, from the **Behavioral Risk Factor Surveillance System**, 2015. Des Moines, IA. Retrieved September 01, 2017, from <http://idph.iowa.gov/Portals/1/Files/BRFSS/2015%20Annual%20BRFSS%20Report.pdf>
25. U.S. Department of Health and Human Services. What's at-risk or heavy drinking? - Rethinking Drinking - NIAAA. (n.d.). Retrieved August 24, 2017, from www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/Is-your-drinking-pattern-risky/Whats-At-Risk-Or-Heavy-Drinking.aspx
26. U.S. Department of Health and Human Services. Alcohol – Excessive Consumption: Maintaining Limits on Hours of Sale. (2016, November 22). Retrieved August 18, 2017, from www.thecommunityguide.org/findings/alcohol-excessive-consumption-maintaining-limits-hours-sale
27. U.S. Department of Health and Human Services. Alcohol – Excessive Consumption: Regulation of **Alcohol Outlet Density**. (2017, August 18). Retrieved August 18, 2017, from www.thecommunityguide.org/findings/alcohol-excessive-consumption-regulation-alcohol-outlet-density
28. U.S. Department of Health and Human Services. Immunization and Infectious Diseases. (n.d.). Retrieved August 18, 2017, from www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives
29. U.S. Department of Health and Human Services. (2006, October 11). Hepatitis B. Retrieved August 18, 2017, from www.vaccines.gov/diseases/hepatitis_b/index.html
30. U.S. Department of Health and Human Services. Immunization and Infectious Diseases. (n.d.). Retrieved June 13, 2017, from www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives
31. Centers for Disease Control and Prevention. Immunization Schedules. (2017, March 06). Retrieved June 13, 2017, from www.cdc.gov/vaccines/schedules/hcp/child-adolescent.html
32. Centers for Disease Control and Prevention. **Human Papillomavirus** (HPV). (2017, July 14). Retrieved June 13, 2017, from www.cdc.gov/hpv/parents/vaccine.html
33. Iowa Department of Public Health. (2017, June 22). 2016 Immunizations in Iowa Immunization Program Annual Report. Retrieved September 1, 2017, from <https://idph.iowa.gov/Portals/1/userfiles/39/2016%20Immunization%20Program%20Annual%20Report%20Final%206-22-17%20%281%29%20%281%29.pdf>
34. Searchable platform for building codes. (n.d.). Retrieved August 18, 2017, from https://up.codes/viewer/general/int_residential_code_2015/chapter/F#F
35. National Institutes of Health. Cancer-Causing Substances. (n.d.). Retrieved August 18, 2017, from www.cancer.gov/about-cancer/causes-prevention/risk/substances
36. Environmental Protection Agency. Publications about **Radon**. (2017, August 17). Retrieved August 18, 2017, from www.epa.gov/radon/publications-about-radon
37. National Society of Genetic Counselors. (n.d.). In Person - Find a Genetic Counselor. Retrieved September 15, 2017, from www.nsgc.org/page/student_physician-contact Search Criteria: State: Iowa
38. American College of Surgeons. (n.d.). Cancer Programs. Retrieved September 01, 2017, from www.facs.org/search/cancer-programs?state=IA
39. Barnett, J., & Vornovitsky, M. (2016, September). Health Insurance Coverage in the United States: 2015 Current Populations Report. Retrieved September 1, 2017, from www.census.gov/content/dam/Census/library/publications/2016/demo/p60-257.pdf
40. American College of Surgeons. (n.d.). Requesting a Cancer Program Category Change. Retrieved September 15, 2017, from www.facs.org/quality-programs/cancer/coc/apply/categories
41. National Institutes of Health. (n.d.). ClinicalTrials.gov. Retrieved September 15, 2017, from <https://clinicaltrials.gov/>
42. Center to Advance **Palliative Care**, & National Palliative Care Research Center. (2015). America's Care of Serious Illness 2015 State-By-State Report Card on Access to Palliative Care in Our Nation's Hospitals. Retrieved September 1, 2017, from <https://reportcard.capc.org/wp-content/uploads/2015/08/CAPC-Report-Card-2015.pdf>

43. University of Wisconsin School of Medicine and Public Health Carbone Cancer Center. (2014, July). Achieving Balance in State Pain Policy A Progress Report Card (CY 2013). Retrieved September 1, 2017, from www.painpolicy.wisc.edu/sites/www.painpolicy.wisc.edu/files/prc2013.pdf
44. **Health Equity:** Culturally Specific Healthcare Settings. (2016, October 05). Retrieved August 18, 2017, from www.thecommunityguide.org/findings/health-equity-culturally-specific-healthcare-settings
45. National Institutes of Health. (n.d.). Clear Communication. Retrieved August 25, 2017, from www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication
46. Polite, B. N., MD, MPP, Adams-Campbell, L. L., PhD, Brawley, O. W., MD, Bickell, N., MD, Carethers, J. M., MD, Flowers, C. S., MD, . . . Paskett, E. D., PhD. (2017). Charting the Future of Cancer **Health Disparities** Research: A Position Statement From the American Association for Cancer Research, the **American Cancer Society**, the American Society of Clinical Oncology, and the **National Cancer Institute**. Retrieved September 18, 2017, from <http://ascopubs.org/doi/full/10.1200/JCO.2017.73.6546>
47. Minnesota Cancer Alliance. (2016). Cancer Plan Minnesota 2025. Retrieved August 24, 2017, from <http://mncanceralliance.org/cancer-plan-minnesota-2025>
48. Centers for Disease Control and Prevention. (2013, September 09). National Comprehensive **Cancer Control** Program (NCCCP). Retrieved August 24, 2017, from www.cdc.gov/cancer/ncccp/prog_eval_toolkit.htm
49. National Hospice and **Palliative Care** Organization. **Advance Care Planning**. (2017, May 30). Retrieved August 24, 2017, from www.nhpco.org/advance-care-planning
50. Centers for Disease Control and Prevention. About ACIP. (2012, August 16). Retrieved August 24, 2017, from www.cdc.gov/vaccines/acip/about.html
51. **American Cancer Society**. American Cancer Society-Home. (n.d.). Retrieved August 24, 2017, from www.cancer.org/
52. Centers for Disease Control and Prevention. **Behavioral Risk Factor Surveillance System**. (2017, May 08). Retrieved August 24, 2017, from www.cdc.gov/brfss/index.html
53. Korde, L. A., & Gadalla, S. M. (2009). **Cancer Risk Assessment** for the Primary Care Physician. *Primary Care*, 36(3), 471–488. <http://doi.org/10.1016/j.pop.2009.04.006>
54. Waters, A., MA, & Asbill, L., MA. (2013, August). Reflections on **Cultural Humility**. Retrieved August 24, 2017, from www.apa.org/pi/families/resources/newsletter/2013/08/cultural-humility.aspx
55. Human Rights Campaign. (2017). **Sexual Orientation and Gender Identity** Definitions. Retrieved August 24, 2017, from www.hrc.org/resources/sexual-orientation-and-gender-identity-terminology-and-definitions
56. **National Cancer Institute**. (n.d.). NCI Dictionary of Cancer Terms. Retrieved August 24, 2017, from www.cancer.gov/publications/dictionaries/cancer-terms?cdrid=44961
57. National Institute of Health. (n.d.). National Human Genome Research Institute. Retrieved August 24, 2017, from www.genome.gov/glossary/index.cfm?id=88
58. U.S. Department of Health and Human Services. (2014). Disparities. Retrieved August 24, 2017, from www.healthypeople.gov/2020/about/foundation-health-measures/Disparities
59. World Health Organization. (n.d.). **Health policy**. Retrieved August 24, 2017, from www.who.int/topics/health_policy/en/
60. **American Cancer Society**. (n.d.). What is **hospice care**? Retrieved August 24, 2017, from www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team/hospice-care/what-is-hospice-care.html
61. Iowa Department of Public Health. (n.d.). **Immunization Registry Information System (IRIS)**. Retrieved August 24, 2017, from <https://idph.iowa.gov/immmtb/immunization/iris>
62. Kepka, D., Spigarelli, M. G., Warner, E. L., Yoneoka, Y., McConnell, N., & Balch, A. (2016). Statewide analysis of missed opportunities for **human papillomavirus** vaccination using vaccine registry data. *Papillomavirus Research*, 2, 128–132. doi:10.1016/j.pvr.2016.06.002
63. **Mortality**. (n.d.). Retrieved August 25, 2017, from www.dictionary.com/browse/mortality
64. **National Cancer Institute**. (n.d.). NCI's **National Clinical Trials Network**. Retrieved August 25, 2017, from www.cancer.gov/research/areas/clinical-trials/nctn
65. **National Cancer Institute**. (n.d.). **NCI Community Oncology Research Program (NCORP)**. Retrieved August 31, 2017, from <https://ncorp.cancer.gov/>
66. **National Cancer Institute**. (n.d.). NCI-Designated Cancer Centers. Retrieved August 31, 2017, from www.cancer.gov/research/nci-role/cancer-centers

67. **Quitline Iowa.** (n.d.). Quitline Iowa Home Page. Retrieved August 25, 2017, from www.quitlineiowa.org/
68. Iowa Department of Public Health. (n.d.). **Smokefree Air Act.** Retrieved August 25, 2017, from <https://smokefreeair.iowa.gov/>
69. **National Cancer Institute.** (n.d.). **Surveillance, Epidemiology and End Results** Program. Retrieved September 01, 2017, from <https://seer.cancer.gov/>
70. Journey Forward. **Survivorship Care Plan.** (n.d.). Retrieved August 25, 2017, from www.journeyforward.org/what-is-cancer-survivorship-care-planning
71. National Cancer Institute. (n.d.). **Late Effects** of Treatment for Childhood Cancer. Retrieved October 04, 2017, from <https://www.cancer.gov/types/childhood-cancers/late-effects-pdq>
72. **U.S. Department of Health and Human Services.** (2014, November 17). Clinical Guidelines and Recommendations. Retrieved October 04, 2017, from <https://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/index.html>





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