

Cancer in Carroll County

Mary Charlton, PhD & Audrey Gronemeyer, MPH

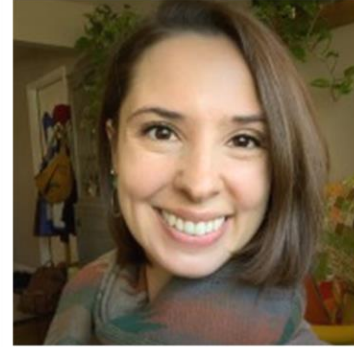
September 29, 2025

Who we are



Mary Charlton, PhD

- Professor, University of Iowa College of Public Health
- Director, Iowa Cancer Registry
- President, Iowa Cancer Consortium
- Co-Leader of the Cancer Epidemiology & Population Science Program, Holden Comprehensive Cancer Center
- Research: Rural/ Urban differences in cancer prevention, screening, & quality of care



Audrey Gronemeyer, MPH

- Research Specialist, Iowa Cancer Registry
- Assists the Registry with project management
- Coordinator for the 99 Counties Project

These slides will be posted

These slides will be posted to the Iowa Cancer Registry website:

www.iowacancerregistry.org/99



If you have questions after, please email us at ICR-99countiesproject@uiowa.edu

Media

If you are a representative of the media and would like more information on this presentation or to speak with someone from the Iowa Cancer Registry, contact ICR-Media@uiowa.edu.

Survey

We would appreciate your feedback on this presentation.

We will send & post a link to a brief survey after this presentation.

99 Counties Project Team



Iowa Cancer
Consortium
www.canceriowa.org



IOWA
HEALTH CARE
Holden Comprehensive
Cancer Center

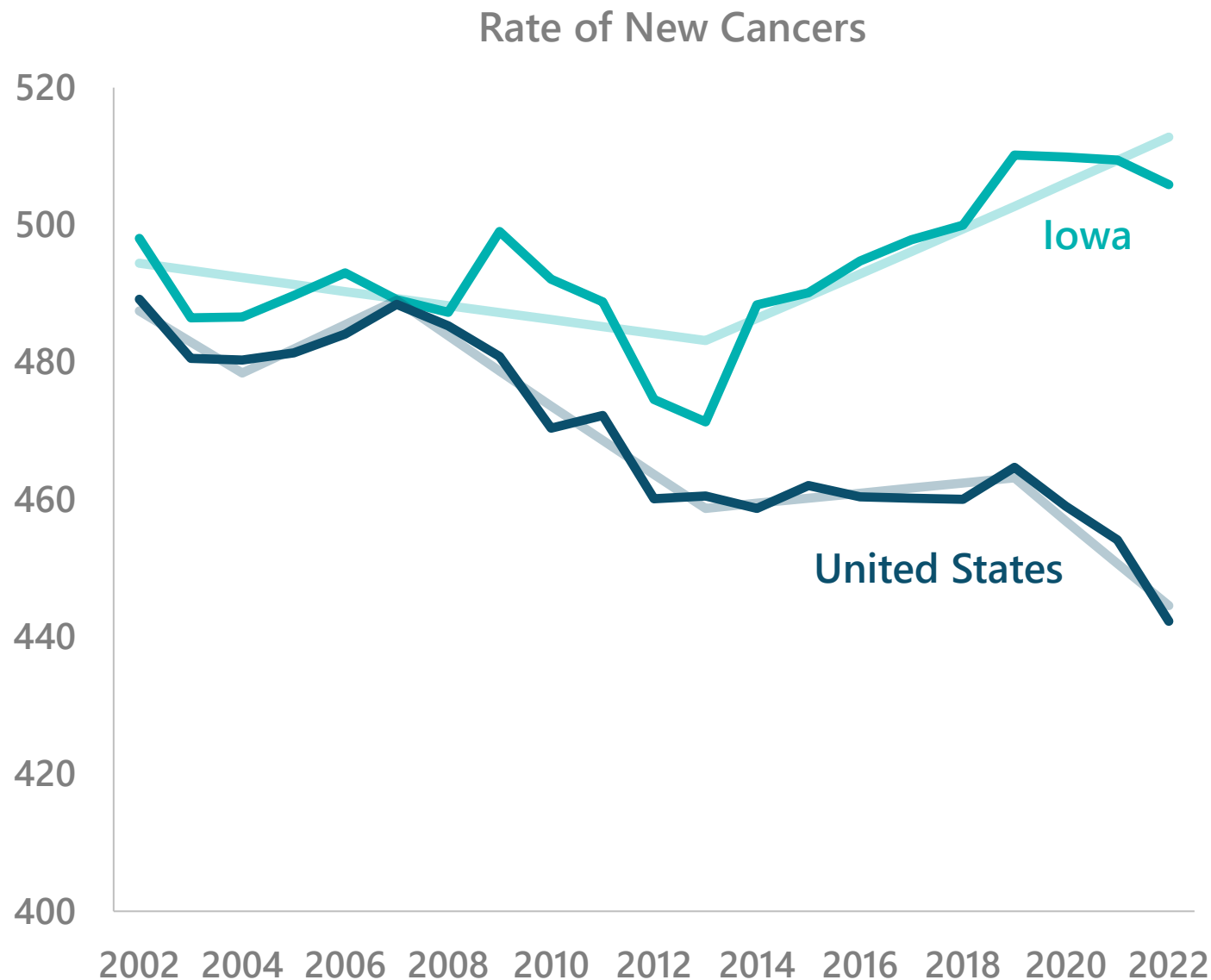
IOWA™ | Health and
Human Services

*"Statistics are people
with the tears wiped away"*

Dr. Irving Selikoff

Iowa has the **#2** highest rate of **new cancers** in the U.S.

Iowa's rate is **14% higher** than the U.S. rate

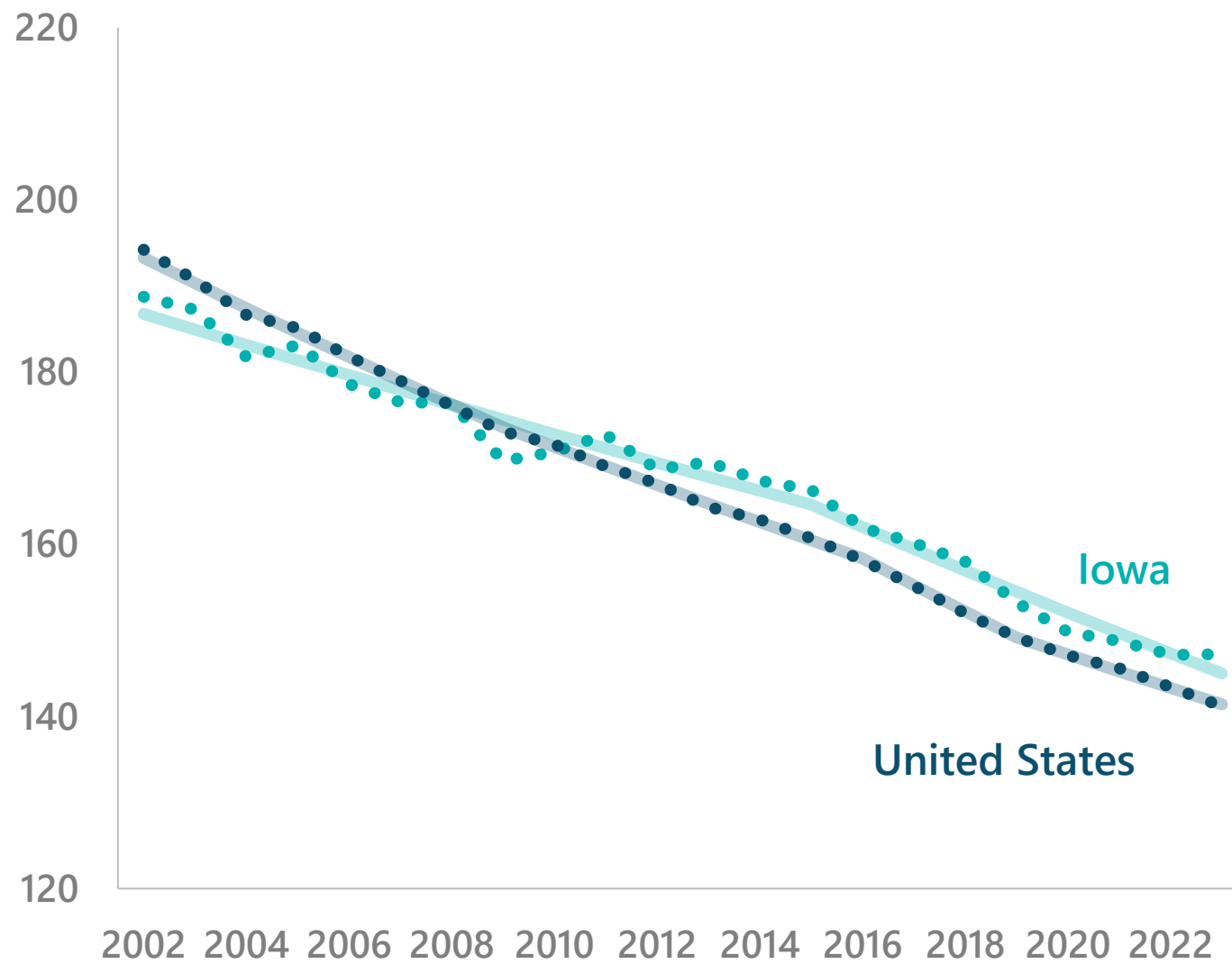


2020 data not included

Iowa has the **#23**
highest rate of
cancer deaths in
the U.S.

Iowa's rate is
3% higher than
the U.S. rate

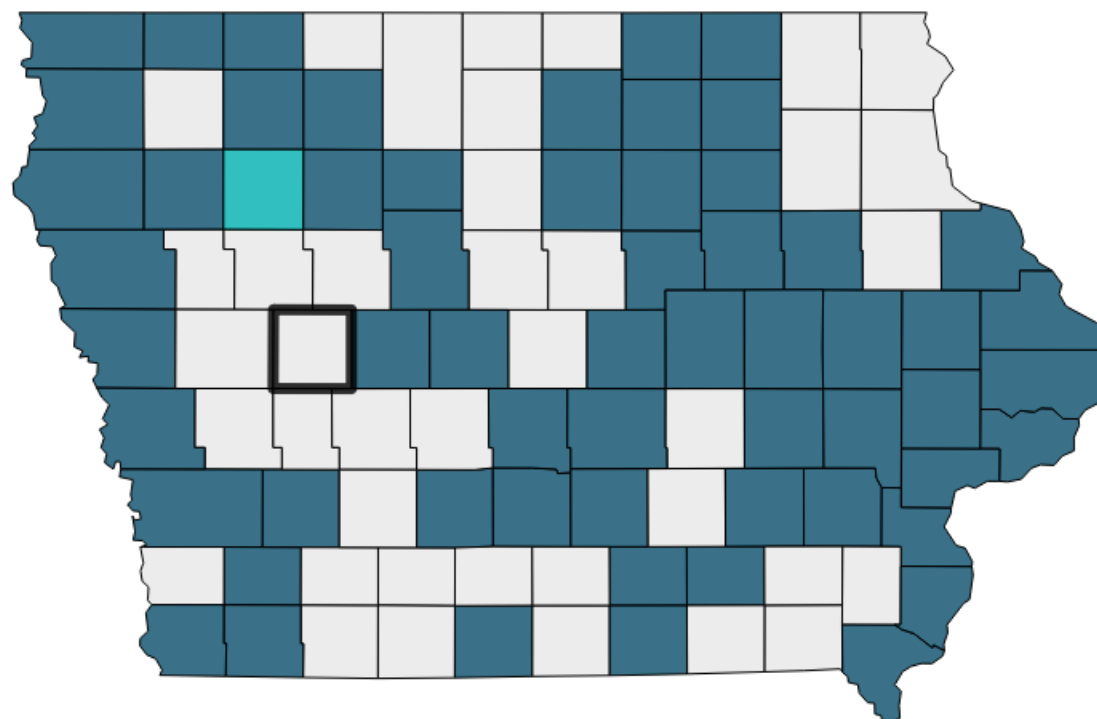
Rate of Cancer Deaths



Over half of Iowa's counties have a higher incidence rate than the U.S.

59 Counties with rate **OVER** the national average

1 County with rate **BELOW** the national average



■ Above National Average
■ Below National Average
■ Similar to National Average

About the Project

Goal: to enhance community engagement & education around cancer prevention and control across all of Iowa's 99 counties.



Present county-specific cancer data



Listen



Provide
Resources



Recommend
actions

There are Many Cancer Control Partners in Iowa

State Government



Governor

- Implement state laws
- Advance and pursue policies and programs

Iowa Legislature

- Propose and vote on legislation
- Appropriate money to state agencies and programs
- Create and modify Iowa laws



Bureau of Chronic, Congenital and Inherited Conditions

Comprehensive Cancer Control Program

Cancer prevention, screening, survivorship

Care for Yourself
(Breast & Cervical
Cancer Program)

Colorectal Cancer
Screening Program

Bureau of Environmental Health Services

- Track environmental health-related diseases
- Assist local boards of health

Local (County) Public Health Services/Boards of Health

- Address health priorities and health disparities
- Promote healthy living
- Protect against environmental hazards
- Assure access to health services

Unity Point, MercyOne, Great River, Avera, Mayo, Methodist, Gundersen, Sanford and numerous independent **health systems, hospitals and clinics across Iowa**

Provide cancer prevention, screening, treatment, and survivorship services



Iowa Cancer
Consortium

Advocate, collaborate, plan



Iowa Cancer Action Network

Advocate for better policies

ACS Iowa

Help with cancer treatment and recovery



Holden Comprehensive
Cancer Center

Iowa's only NCI Designated
Cancer Center

Health Care, research,
education



STATE HEALTH REGISTRY OF IOWA

Data, support research &
education

UI Research Centers



Cancer Prevention and Control Research Network



Center for Health Effects of
Environmental Contamination



Iowa Cancer Registry Goals



Assemble & report data on new cancers, cancer deaths, & survival



Respond to **data requests** from organizations & individuals



Support studies for cancer prevention, research & education

Federal Funding for Cancer Control in Iowa

- The Iowa Cancer Registry is funded in part with Federal funds from the **National Cancer Institute (National Institutes of Health)**, Department of Health and Human Services, under Contract No. HHSN261201800012I
- The Cancer in Iowa: 99 Counties Project is specifically funded by Federal funds from the **National Cancer Institute** through grant award: 5R01CA254628-04S2, and through National Cancer Institute funds provided to the University of Iowa Holden Comprehensive Cancer Center (P30CA086862)
- The Iowa Cancer Consortium acknowledges the **Centers for Disease Control and Prevention (CDC)** for its funding support under cooperative agreement NU58DP007103 awarded to the Iowa Department of Health and Human Services (Iowa HHS).

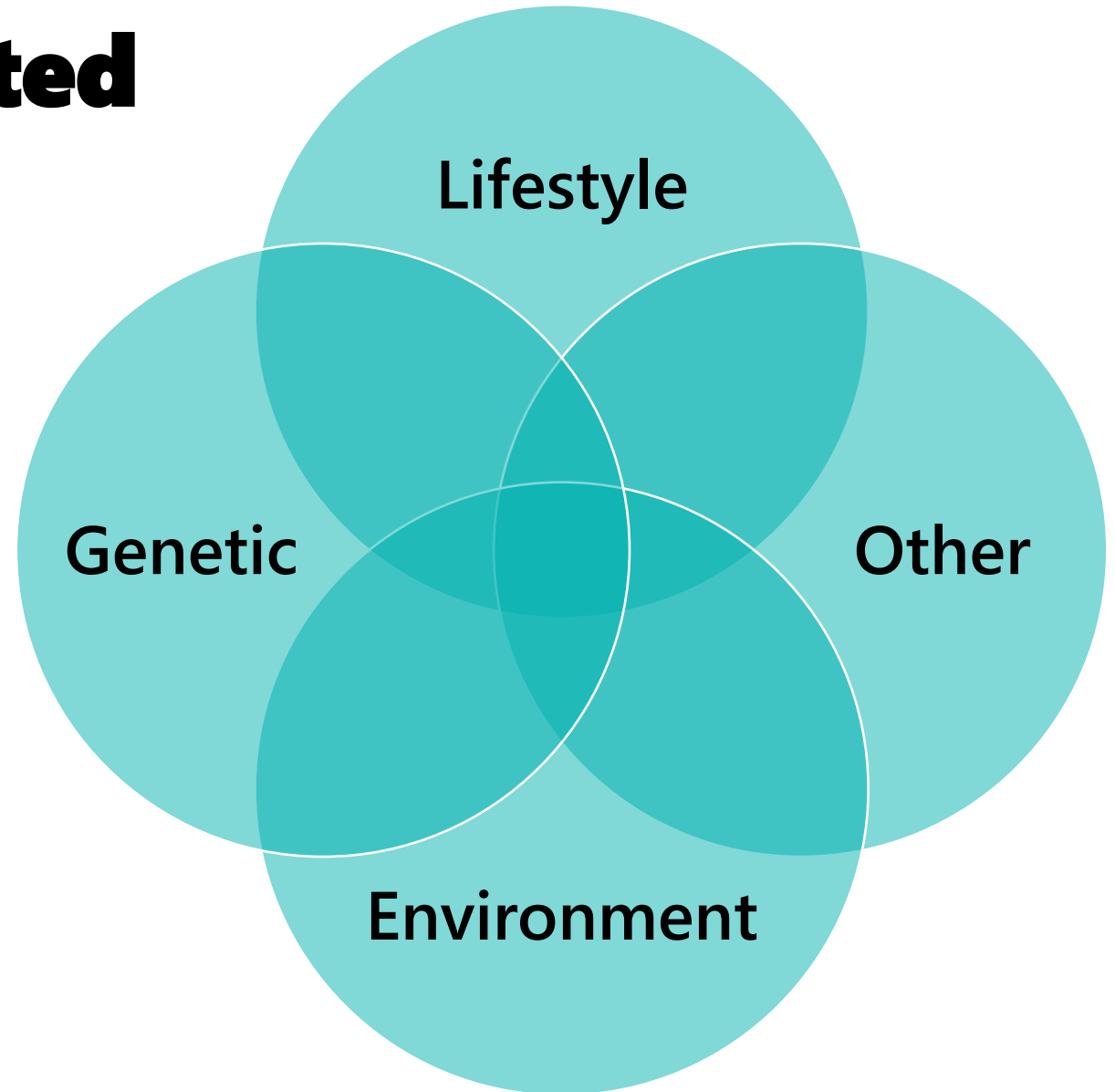
The contents of this presentation are solely the responsibility of the authors and do not necessarily represent the official views of CDC or the National Institutes of Health/National Cancer Institute.



Background on Cancer

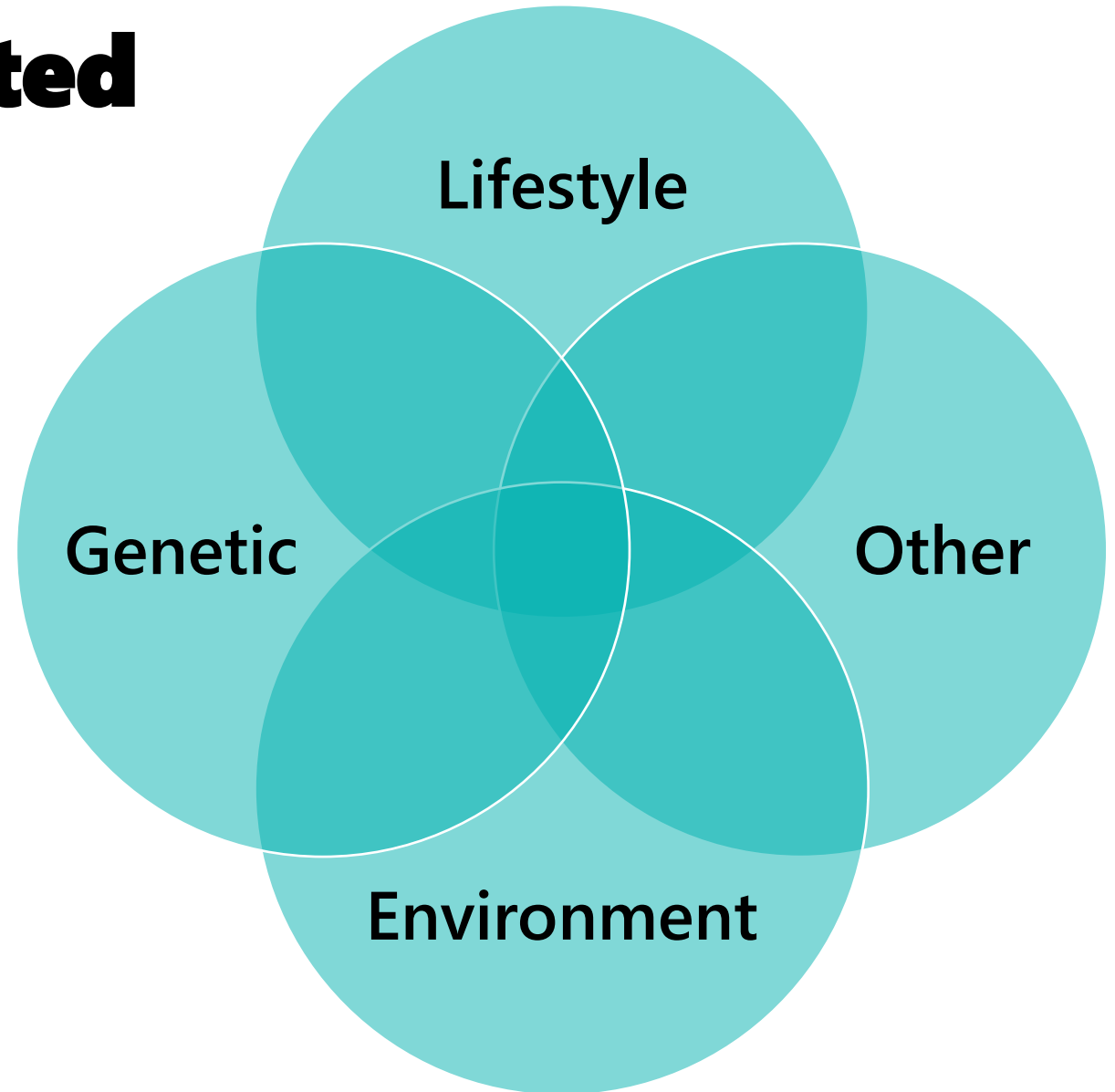
Cancer is Complicated

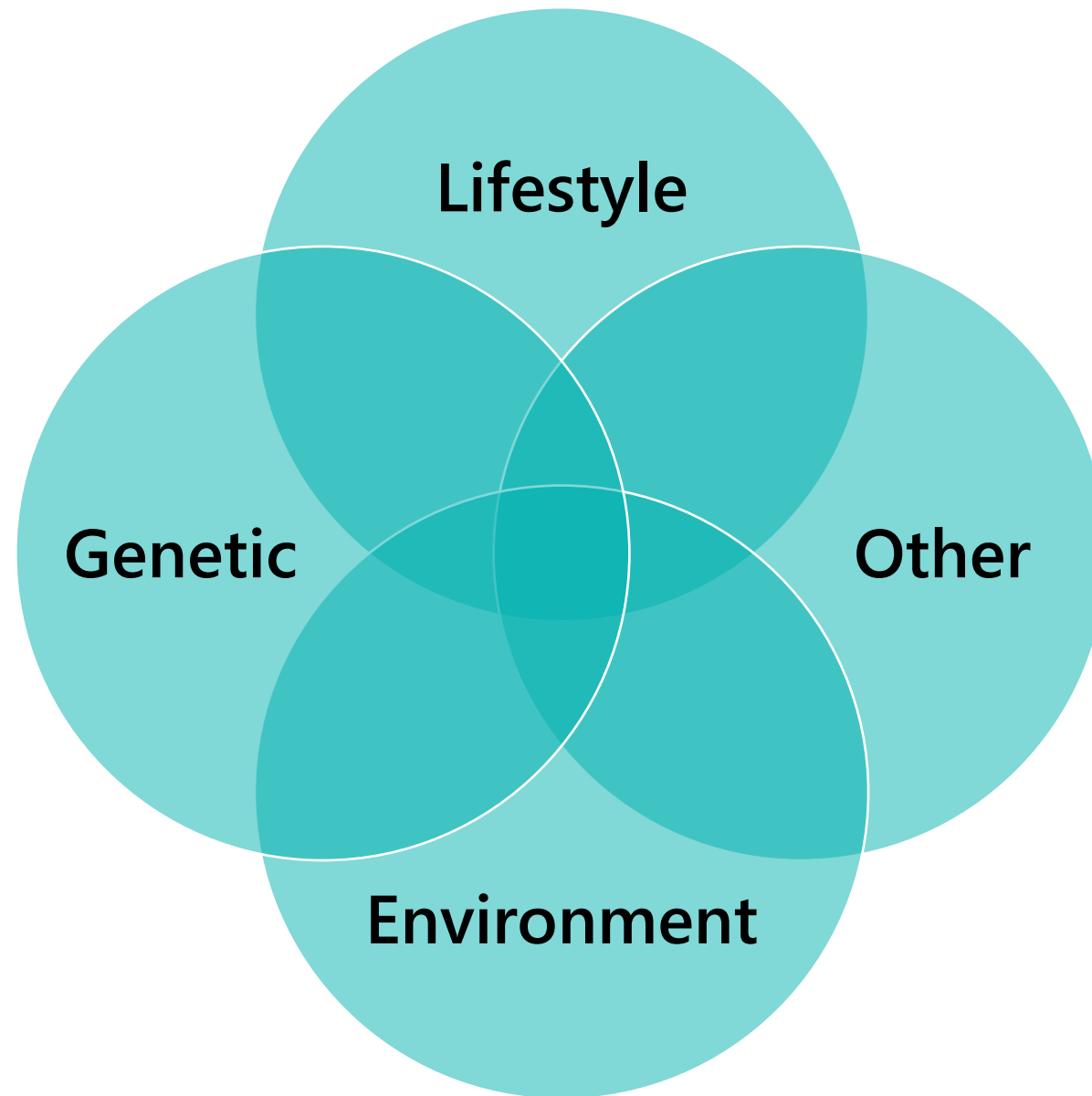
There is no one cause of cancer; it is a combination of different **genetic, lifestyle, and environmental** risk factors that change the function of cells



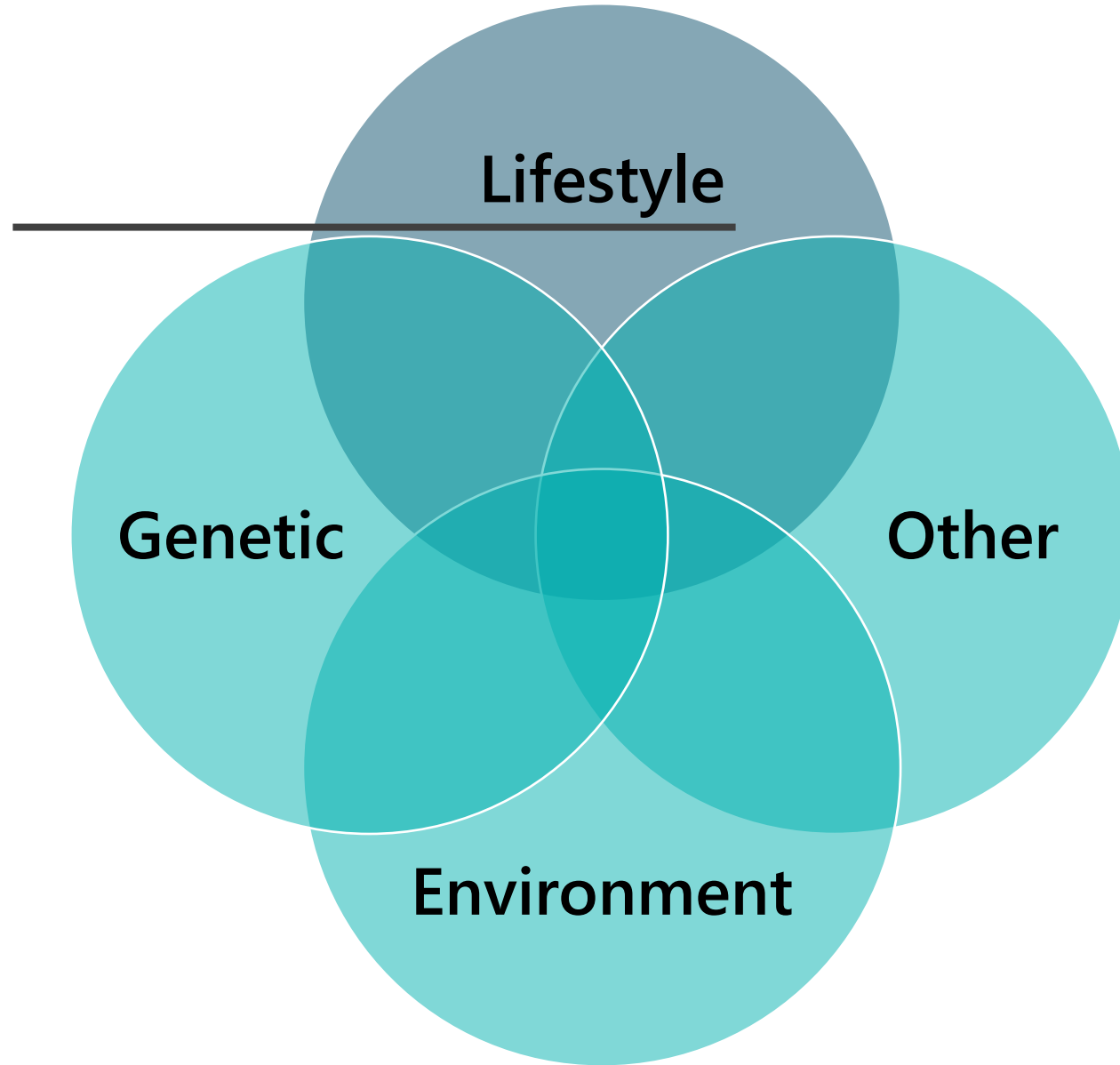
Cancer is Complicated

Risk factors are things that increase your chances of getting cancer

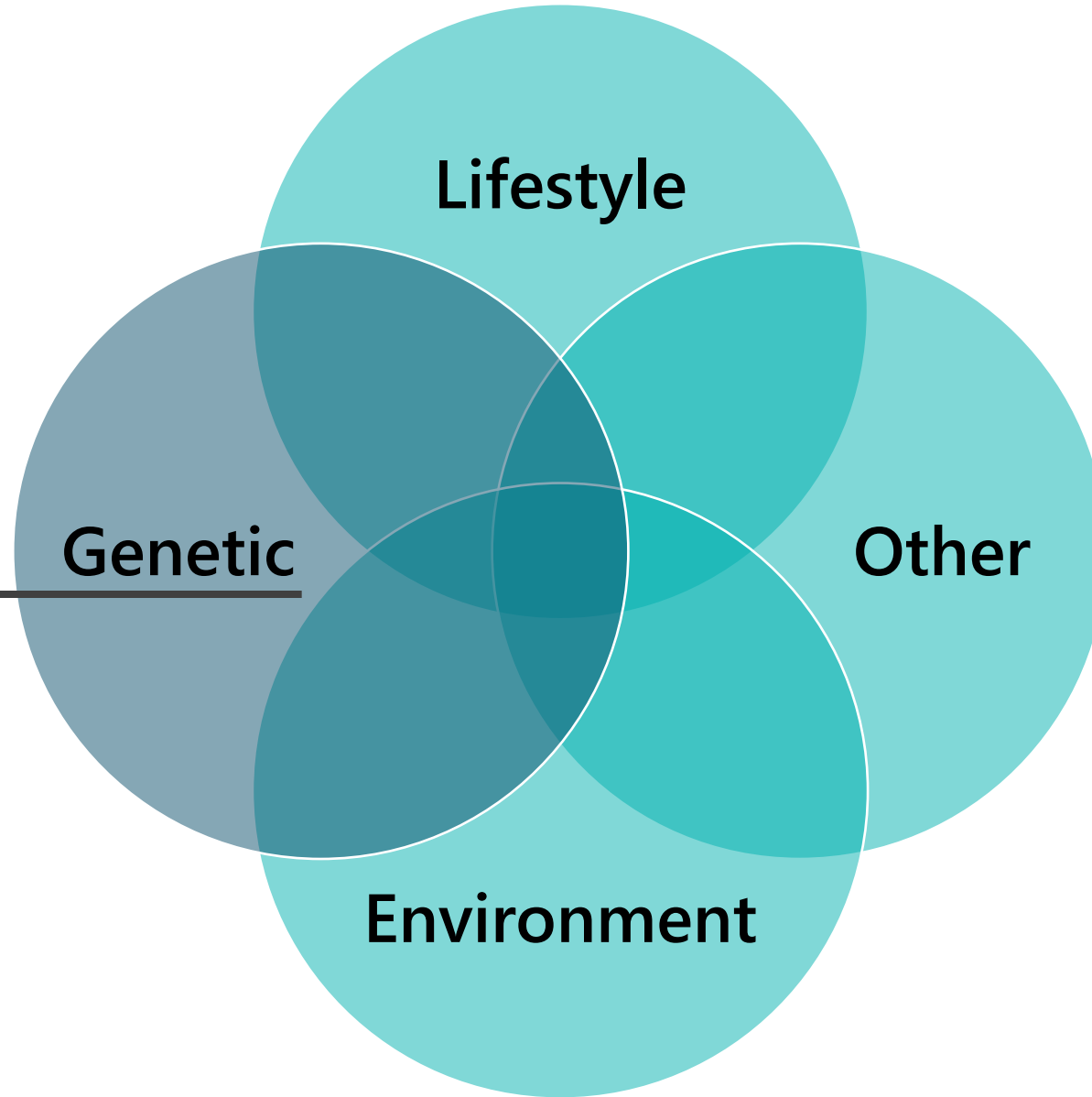


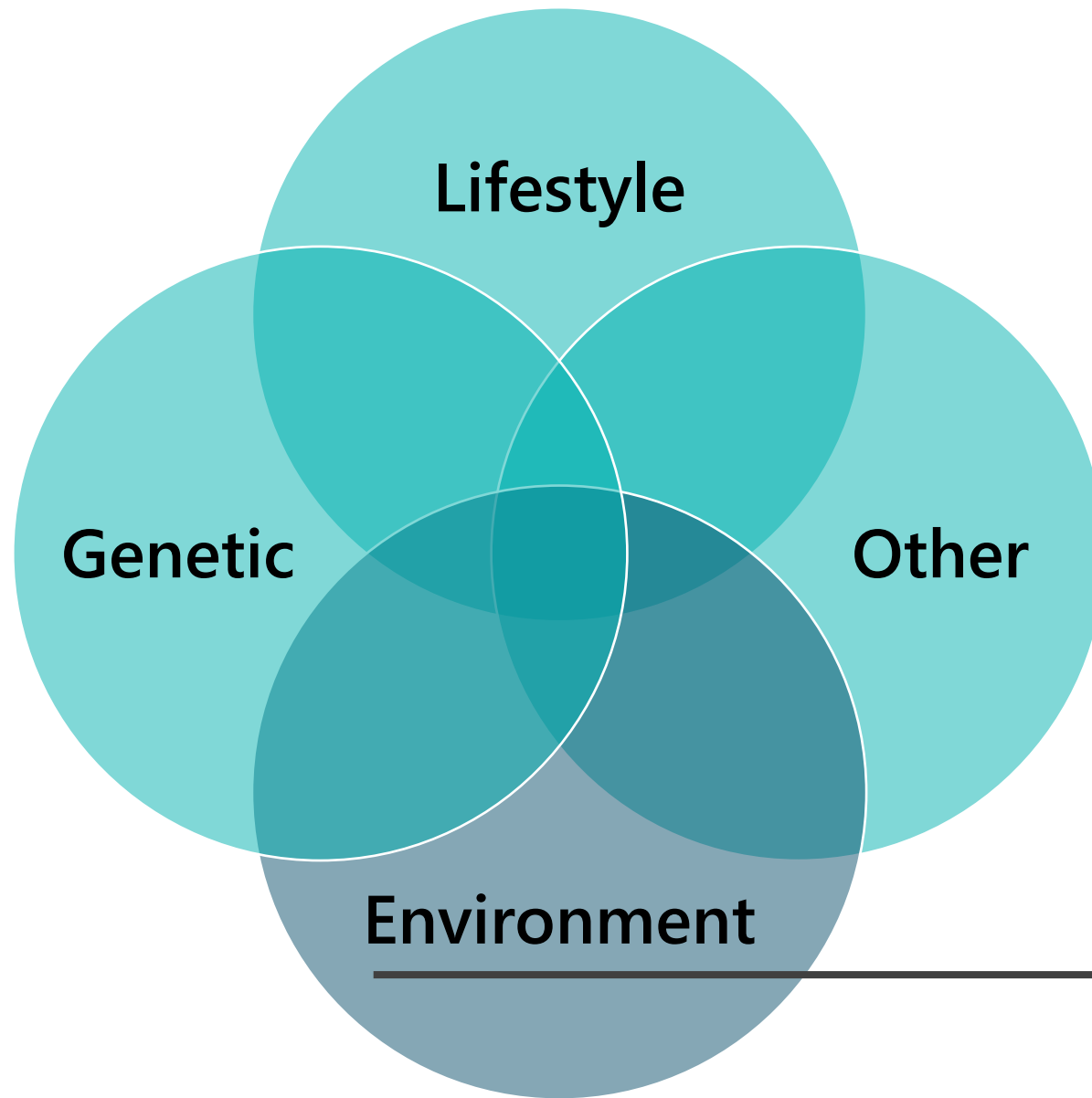


- Tobacco
- Alcohol
- Unhealthy diet
- Not being physically active
- Sunburns

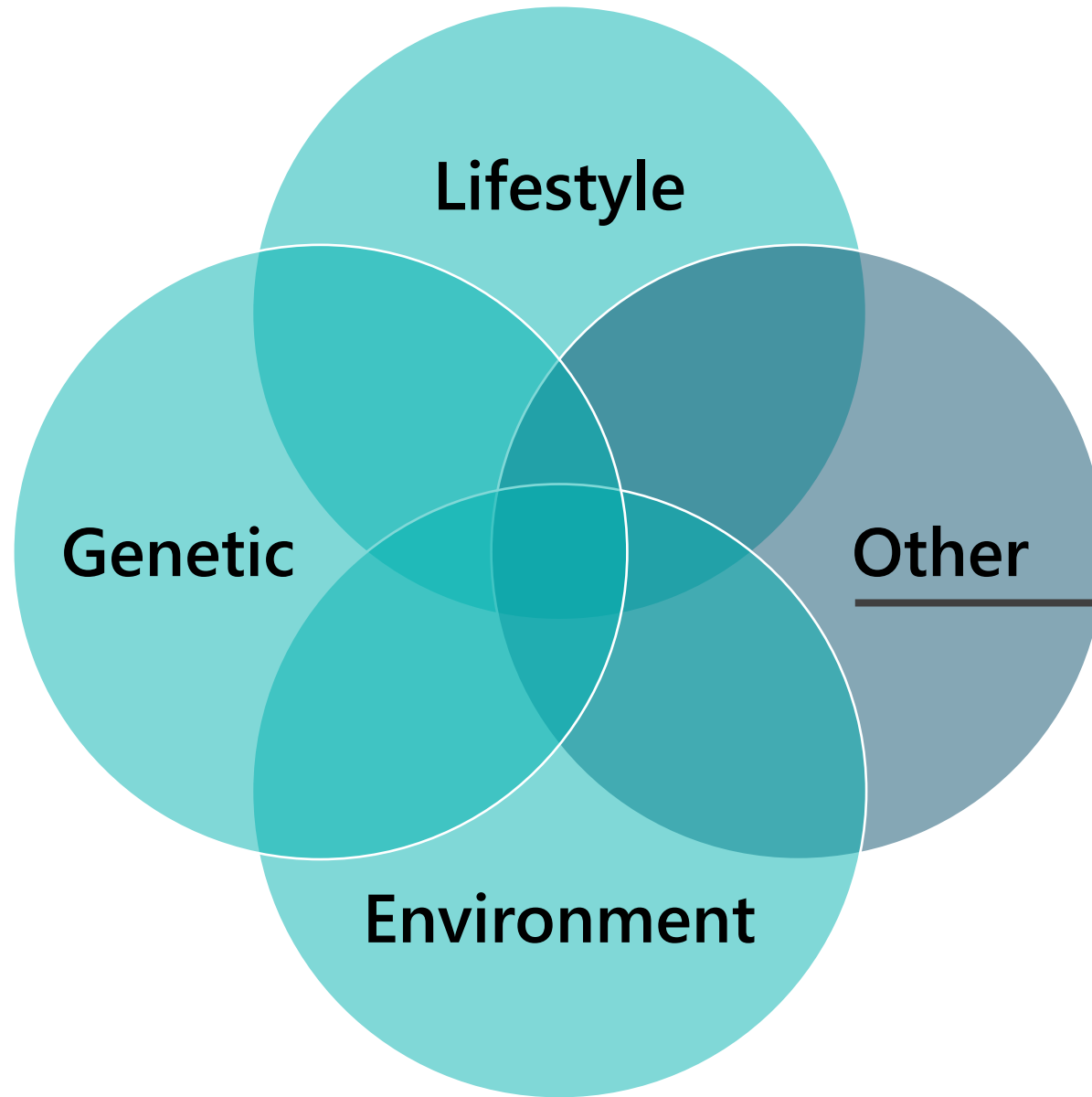


- Family history of cancer
- Random mutations





- Exposure to chemicals
- Radiation



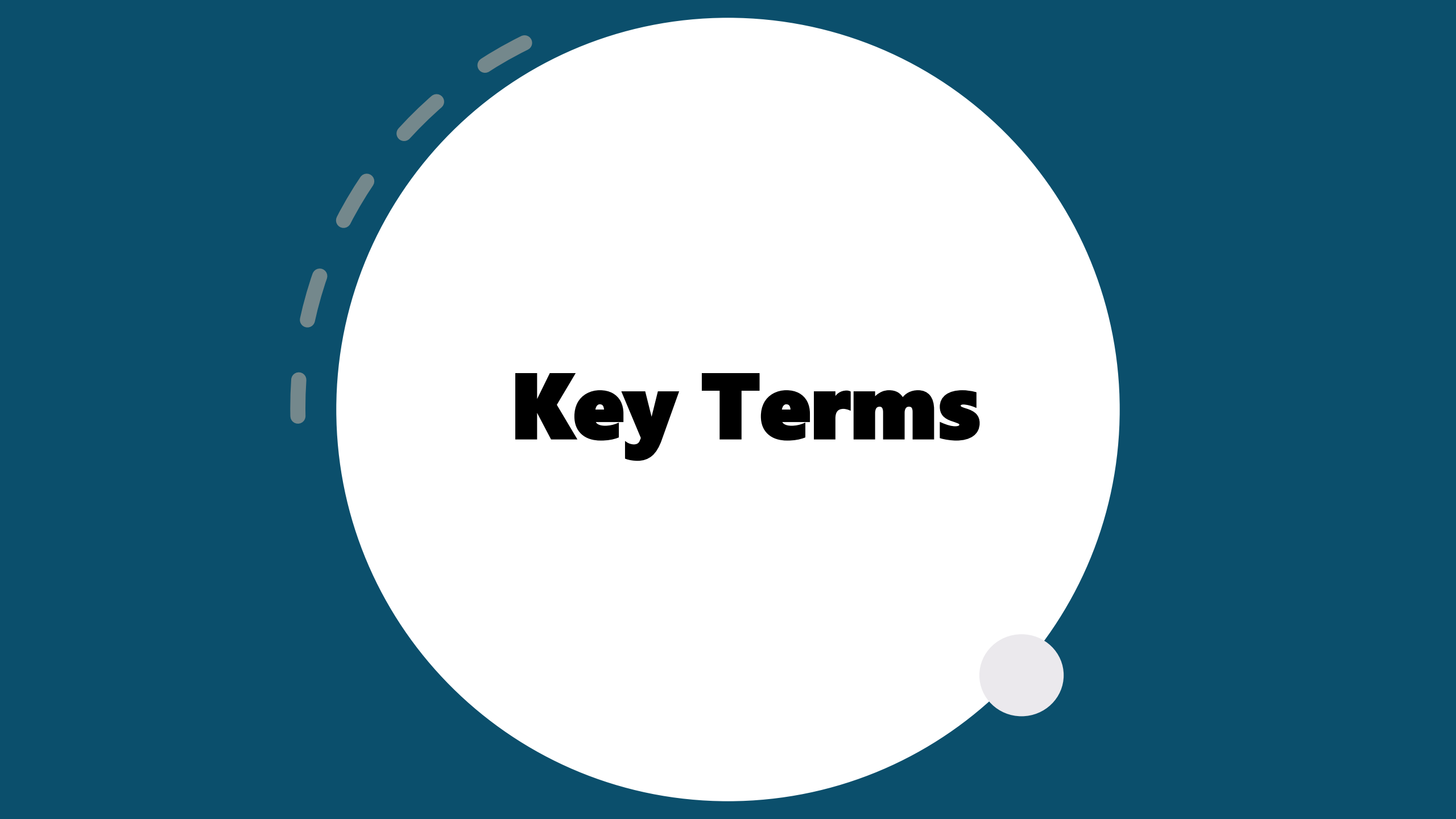
- **Aging**
- Viruses (HPV, HIV)
- Medical conditions like chronic inflammation

Cancer & the Environment

- Many Iowans understandably have questions about potential links between environmental exposures and cancer
- This is an important area of continued research, and Iowans are right to ask questions and be cautious
- ICR, along with other population-based cancer registries, do not collect data on environmental risk factors, but we do share our data with researchers to support studies of cancer & environmental risk factors

Risk Factors

- There can be many years between exposure to risk factors & cancer development, which makes it difficult to prove connections.
 - For example, lung cancer may not occur until 30 years after a person starts smoking
- Today we will focus on things you can do to reduce your cancer risk. These things can be addressed at the state, community, and individual levels.



Key Terms

Incidence & Mortality

- Incidence
 - Number of **new cases** of cancer occurring during a specified time period in a population
- Mortality
 - Number of **deaths** from cancer that occur during a specified time period in a population

Rates & Counts

- Counts
 - The **number** of new cases diagnosed or deaths from cancer
- Age-Adjusted Rates
 - Addresses the question: *If the size and age of the populations were the same, would there be a difference in outcomes?*
 - Adjusts the counts to give a **# per 100,000 people**

Stage definition used today

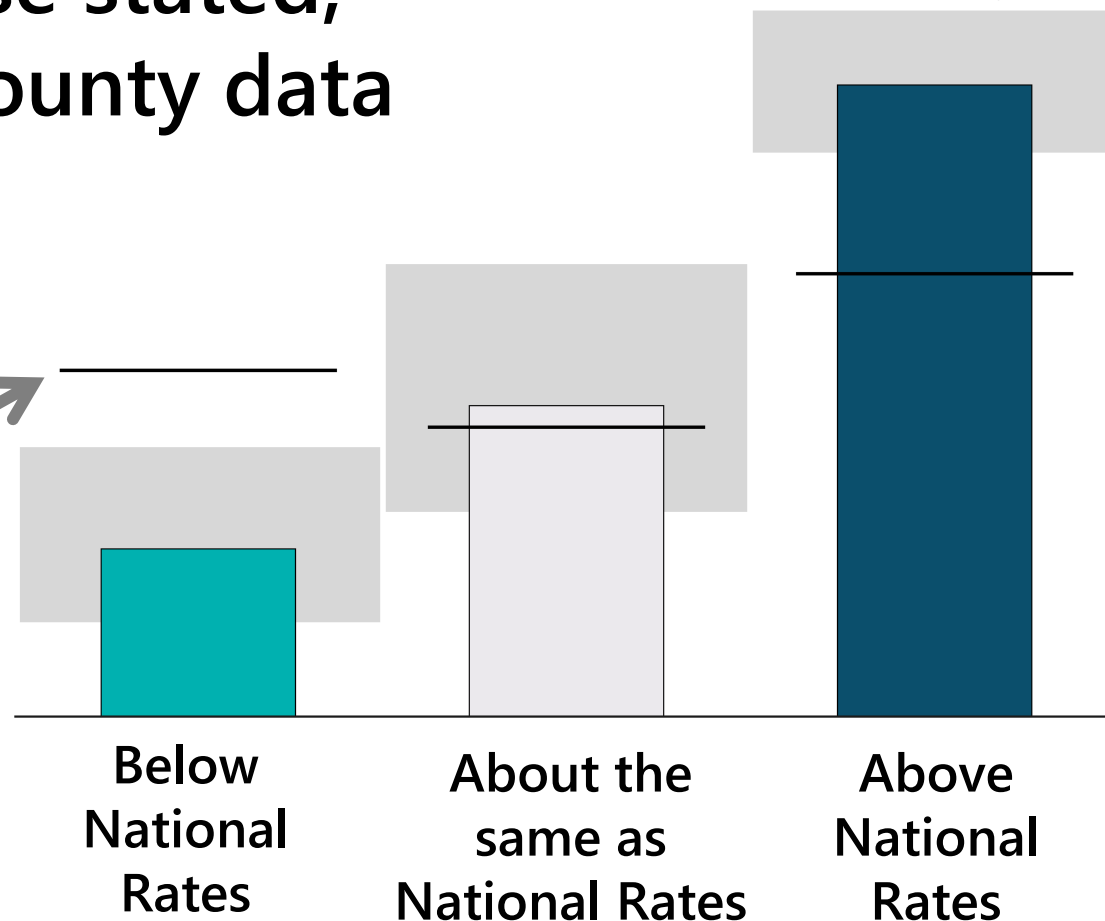
- Early Stage includes
 - Localized: cancer is limited to the place where it started, with no sign that it has spread
- Late Stage includes
 - Regional: cancer has spread to nearby lymph nodes, tissues, or organs
 - Distant: cancer has spread to distant parts of the body

<https://www.cancer.gov/about-cancer/diagnosis-staging/staging>

How to read the graphs

Unless otherwise stated,
bars are your county data

Black lines on
bar graphs
are United
States data



Grey boxes on
bar graphs are
95% Confidence
Intervals.

These are used to
determine if rates
are statistically
different from
each other



Cancer in Carroll County

New Cancers in Carroll County

All cancer types, average counts and rates, 2018-2022

Each year, there are about

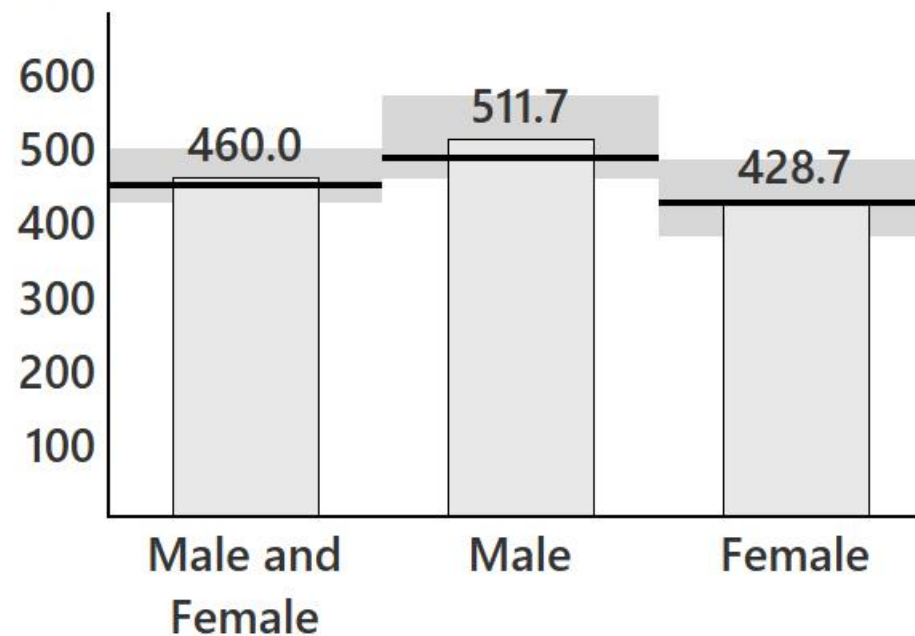
137

new cancers diagnosed in
Carroll County

Cancer incidence rates in Carroll County
are **Similar to National Average**

Ranks #88 of 99 counties

Cancer incidence rates are typically
higher in men than women



Age-Adjusted incidence rate per 100,000 (2018-2022)

Cancer deaths in Carroll County

All cancer types, average counts and rates, 2019-2023

Each year, there are about

47

cancer deaths in Carroll County

Cancer mortality rates in Carroll County
are **Similar to National Average**

Ranks #75 of 99 counties

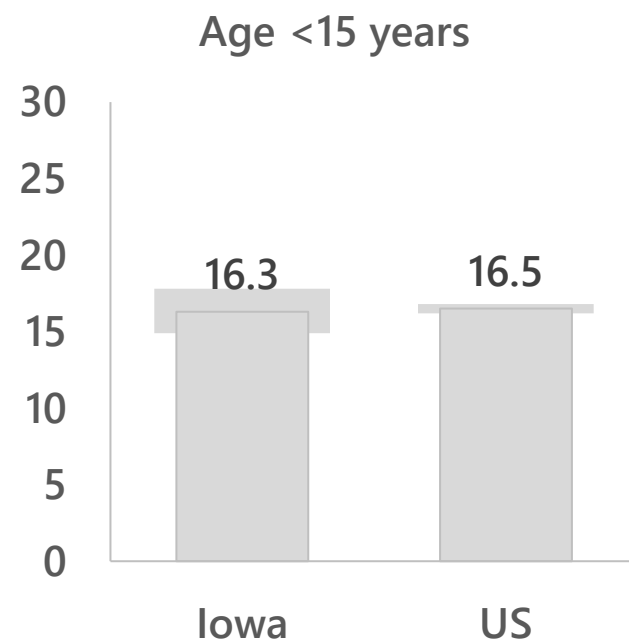
Cancer mortality rates are typically
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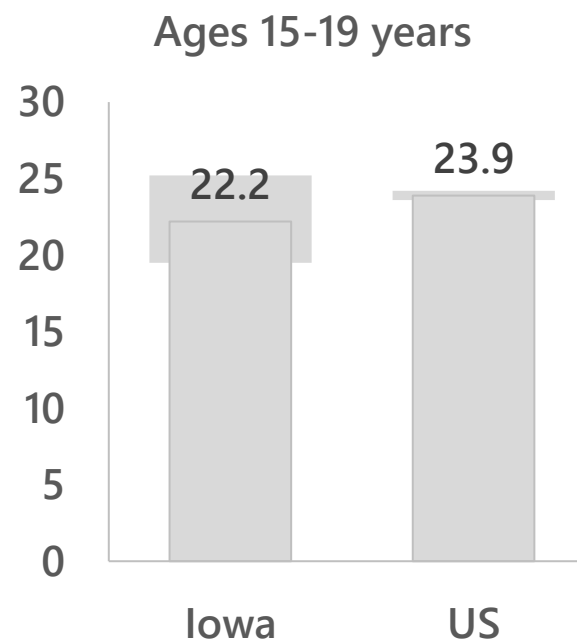
Age-Adjusted mortality rate per 100,000 (2019-2023)

Pediatric, Adolescent, and Young Adult New Cancers in Iowa

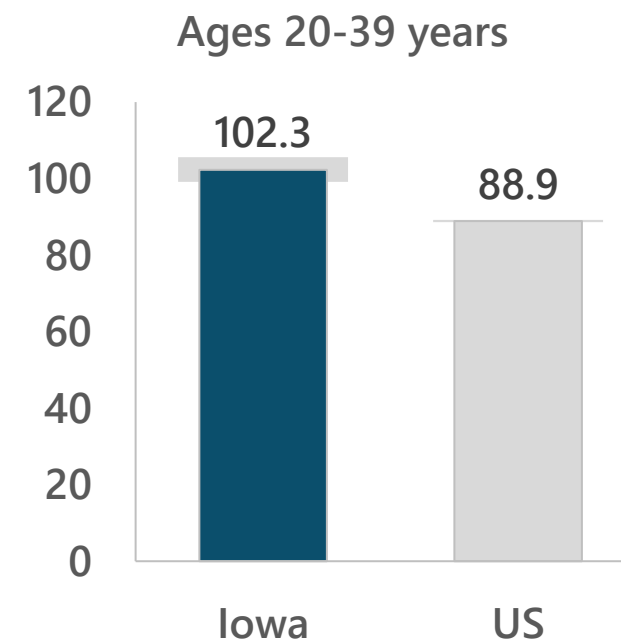
Pediatric cancer incidence rates in Iowa are **not different** than the U.S. rate



Adolescent cancer incidence rates in Iowa are **not different** than the U.S. rate

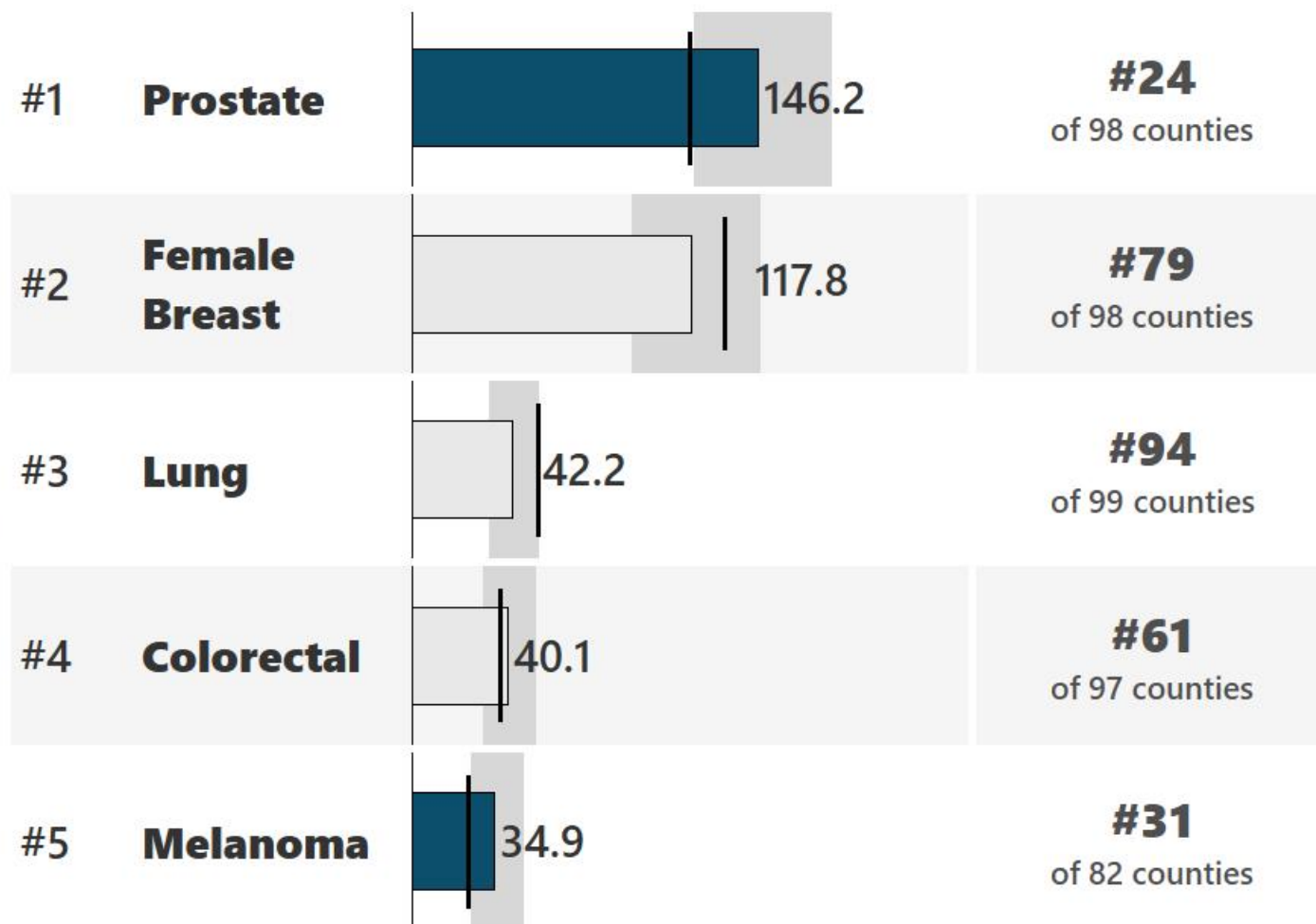


Young Adult cancer incidence rates in Iowa **are higher** than the U.S. rate



Age-Adjusted incidence rate per 100,000 (2018-2022)

Top cancers in Carroll County



Age-Adjusted incidence rate per 100,000 (2018-2022)

Rank compared to other counties, where #1 is highest in the state

#1 | Prostate

Each year in Carroll County,
there are about...

22

New Cases per year

Carroll County

146.2

Statewide

129.5

United States

116.5

<6

Deaths per year

Carroll County

**Too few cases to show rates*

Statewide

19.6

United States

19.2

Prostate Cancer Screening

Screening Guidelines

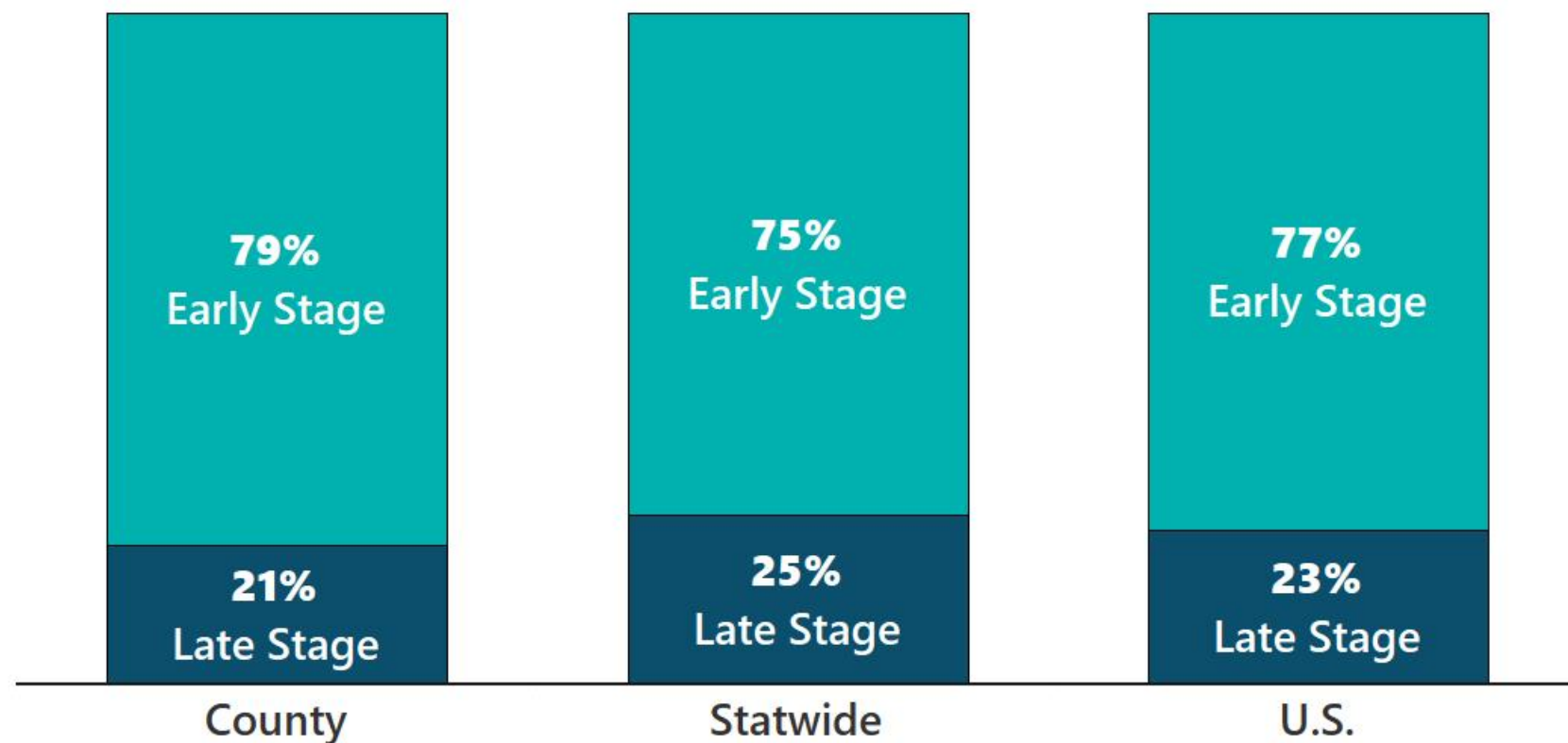
Screening test: Prostate-specific antigen (PSA) blood test

Men who are 55-69 years old, discuss with your doctor if
a PSA test is right for you

(U.S. Preventative Services Task Force)

#1 | Prostate Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



21%
Diagnosed at a
Late Stage

#2 | Female Breast

Each year in Carroll County,
there are about...

18

New Cases per year

Carroll County

Statewide

United States

117.8

137.3

131.4

<6

Deaths per year

Carroll County

Statewide

United States

**Too few cases to show rates*

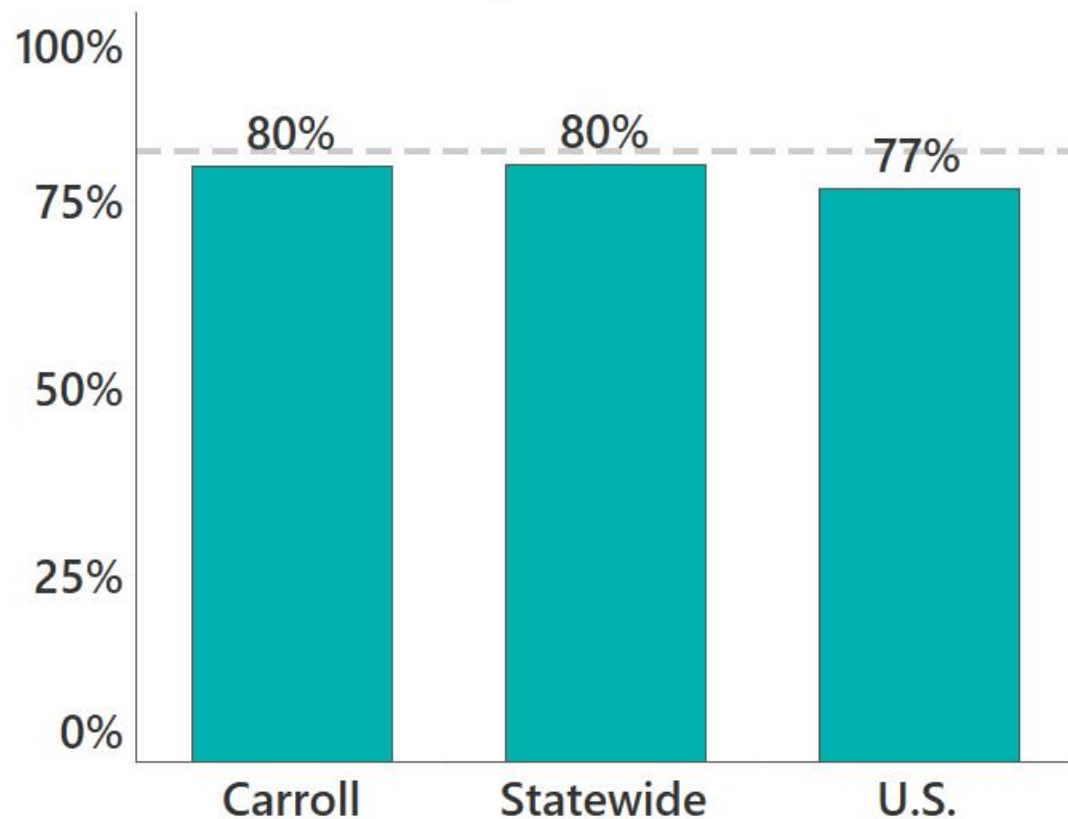
17.4

19.2

Age-Adjusted Rate per 100,000
Incidence (2018-2022); Mortality (2019-2023)

Breast Cancer Screening

Women age 50+ who are up to date with their breast cancer screening



Screening Guidelines

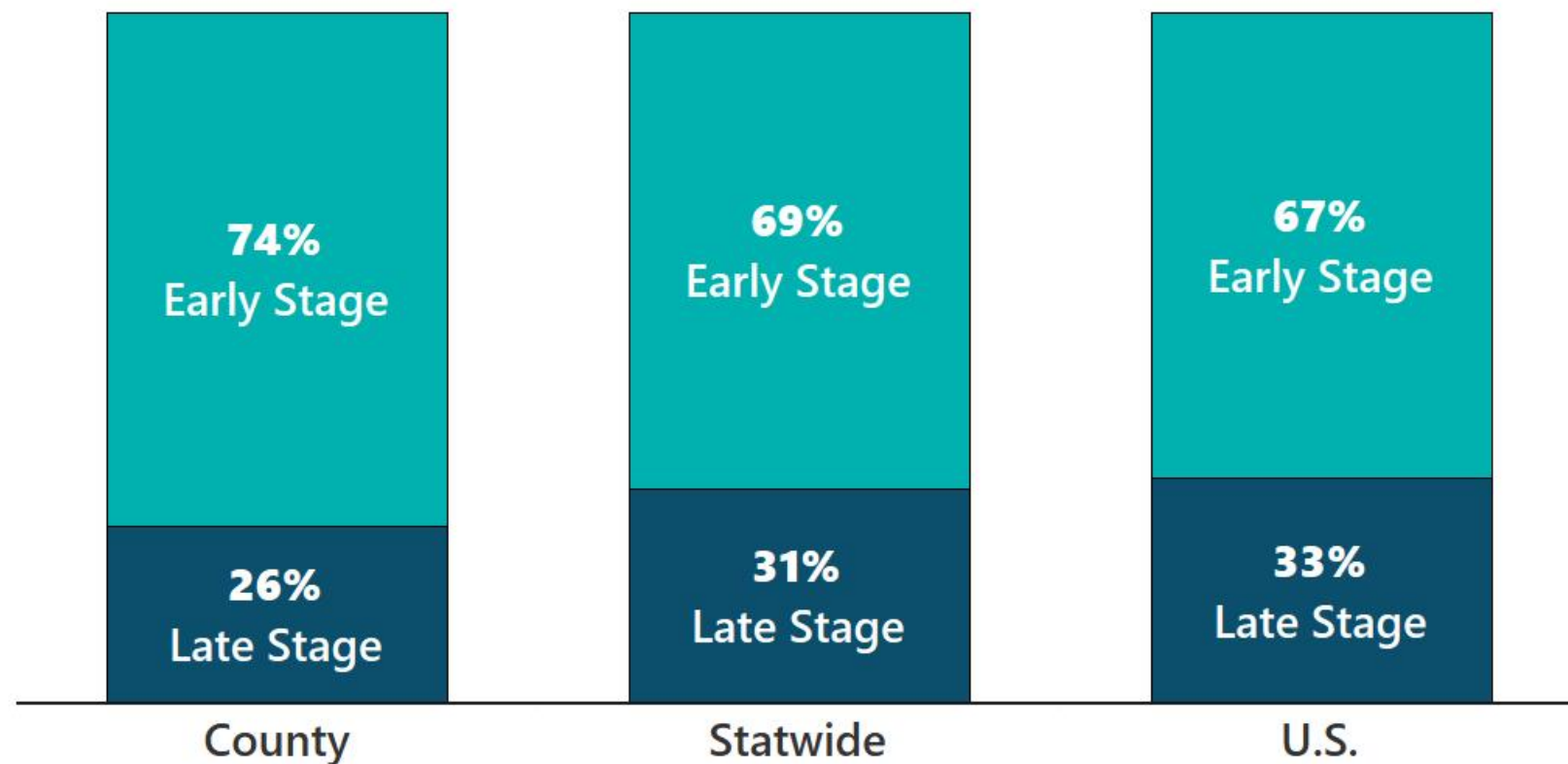
Women ages 40-74 should screen with a mammogram every 2 years

Talk to your doctor if you have a family history of breast cancer

*Data from 2022 survey
Goal: 81.4% by 2027*

#2 | Female Breast Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



26%
Diagnosed at a
Late Stage

The Care for Yourself – Breast and Cervical Cancer Program (CFY-BCC)

We provide free breast and cervical cancer screenings across Iowa.

- ▶ CFY-BCC is also called the Iowa Breast and Cervical Cancer Early Detection Program.
- ▶ CFY-BCC serves Iowans between 21 and 64 years of age.
- ▶ Are at or earn less than 250% of the Federal Poverty Level.
- ▶ Call (866) 339-7909 to speak to a confidential coordinator immediately.
- ▶ CFY-BCC coordinators are available to help you Monday-Friday, 8:00 a.m. to 4:00 p.m.



<https://hhs.iowa.gov/public-health/cancer/cfy>

#3 | Lung

Each year in Carroll County,
there are about...

14

New Cases per year

10

Deaths per year

Carroll County

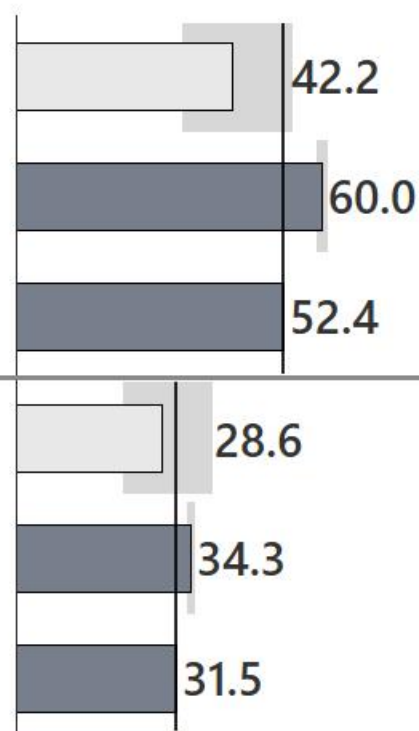
Statewide

United States

Carroll County

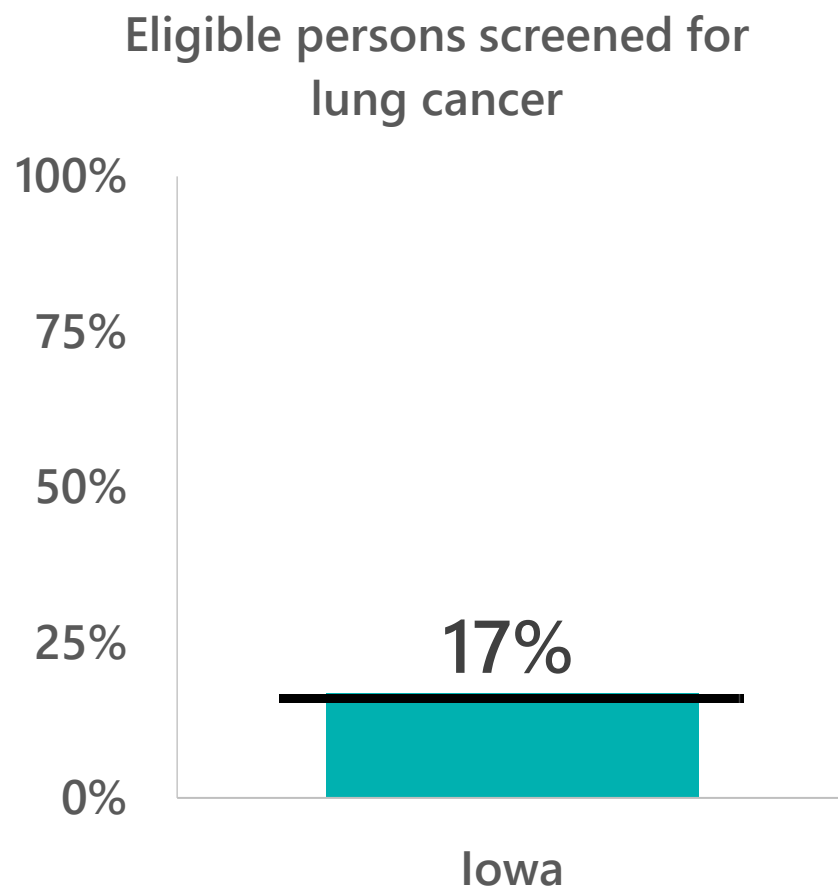
Statewide

United States



Age-Adjusted Rate per 100,000
Incidence (2018-2022); Mortality (2019-2023)

Lung Cancer Screening



Screening Guidelines

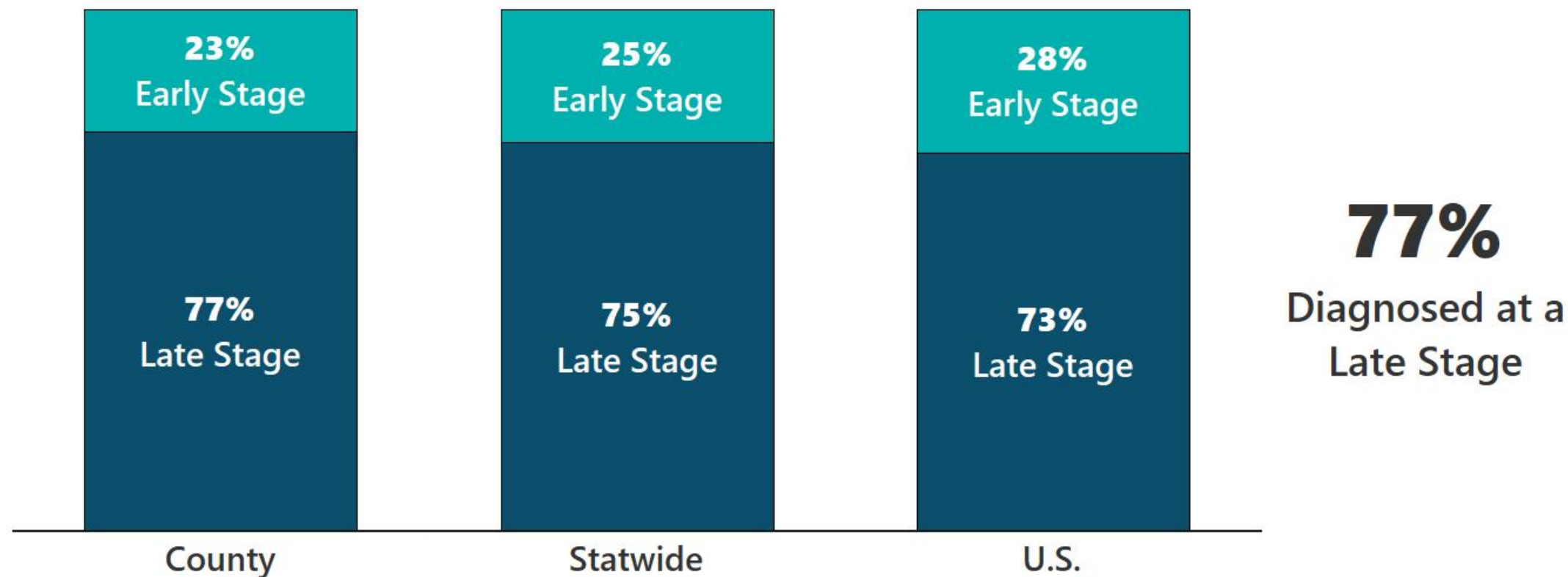
Low-dose CT scan

If you have smoked in the last 15 years and are between the ages 50-80 years talk to your doctor about being screened for lung cancer

(U.S. Preventative Services Task Force)

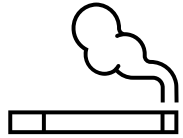
#3 | Lung Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



Data from 2013-2022

Lung Cancer Risk Factors



Smoking is #1 cause of lung cancer



Radon is #2 leading cause of lung cancer
Test your home for radon and mitigate

People who smoke that are exposed to radon are at a **10 to 20 times higher** risk of developing lung cancer than non-smokers

Learn more about Radon testing and mitigation:

Iowa Health & Human Services
hhs.iowa.gov/radiological-health/radon

Iowa Cancer Consortium
canceriowa.org/radon/

#4 | Colorectal

Each year in Carroll County,
there are about...

12

New Cases per year

<6

Deaths per year

Carroll County

40.1

Statewide

40.3

United States

36.6

Carroll County

16.7

Statewide

13.3

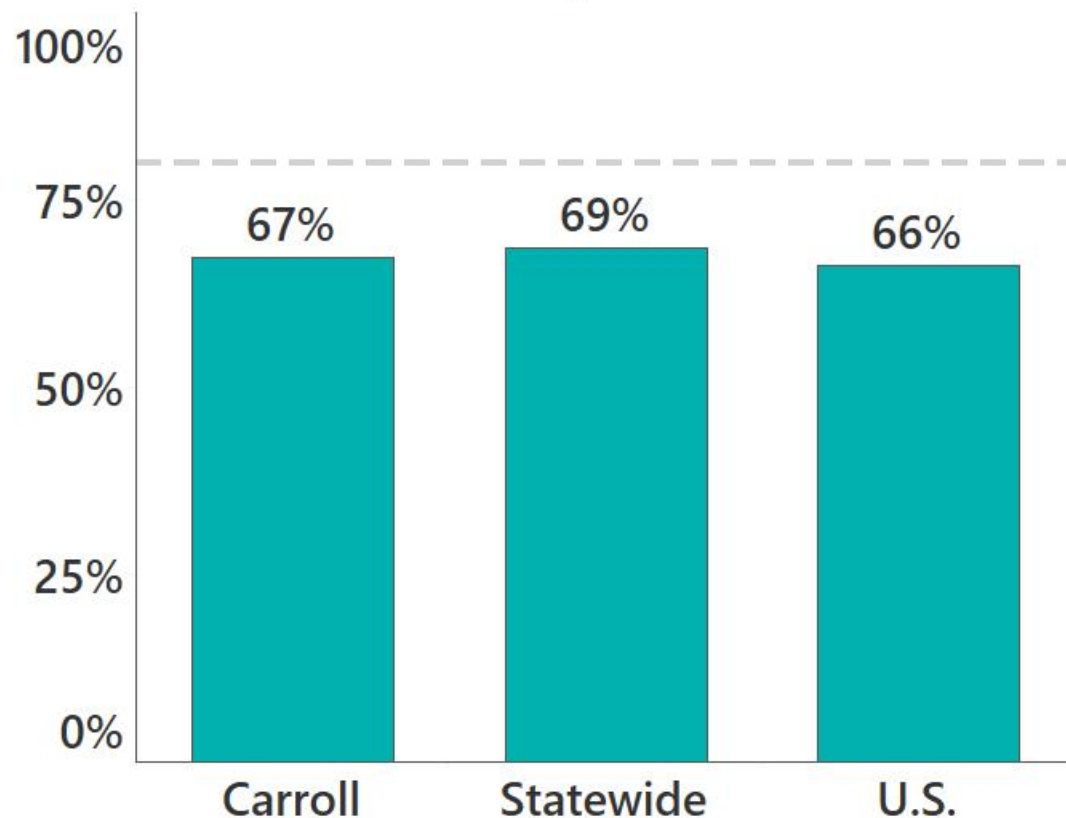
United States

12.9

Age-Adjusted Rate per 100,000
Incidence (2018-2022); Mortality (2019-2023)

Colorectal Cancer Screening

Adults ages 45-75 who are up to date with their colorectal cancer screening



Screening Guidelines

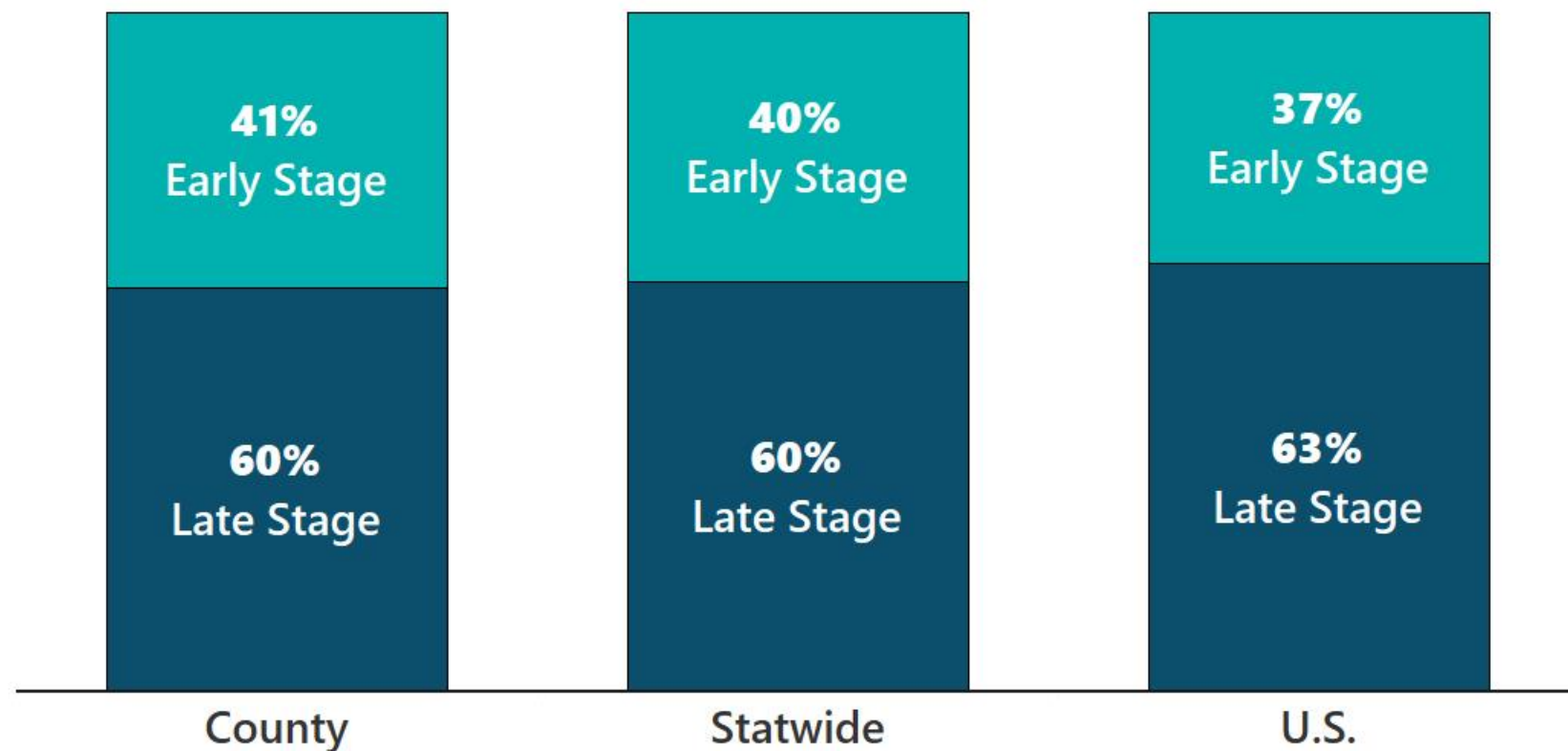
Adults ages 45-75 can screen with either (1) an at-home, stool-based test, or (2) a colonoscopy.

Talk to your doctor about which is best for you.

*Data from 2022 survey
Goal: 80% by 2027*

#4 | Colorectal Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



60%
Diagnosed at a
Late Stage

Iowa Get Screened (IGS): Colorectal Cancer Program

We partner with Iowa's Federally Qualified Health Centers (FQHCs) and local public health agencies to increase colorectal cancer screening.

Through a collaboration with the Iowa Primary Care Association (Iowa PCA) and FQHCs, the program serves low-income Iowans, ages 45-75, to:

- ▶ Increase the number of cancers prevented
- ▶ Increase the diagnosis of early-stage colorectal cancer
- ▶ Reduce colorectal cancer incidence and mortality in the state



<https://hhs.iowa.gov/public-health/cancer/colorectal-cancer-screening-program>

#5 | Melanoma

Each year in Carroll County,
there are about...

9

New Cases per year

Carroll County

34.9

Statewide

32.8

United States

23.1

<6

Deaths per year

Carroll County

**Too few cases to show rates*

Statewide

2.5

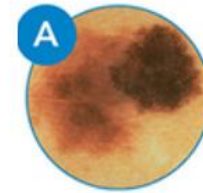
United States

2.0

Melanoma Self-Exams

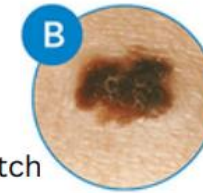
Perform regular self-examinations using a mirror. **If you find new spots or changes in existing spots** talk to your doctor.

Most moles and brown spots are harmless, but following the **ABCDE's** can help you detect melanoma early.



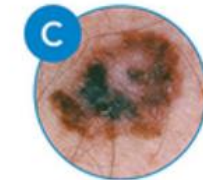
A is for
Asymmetry

the shape of one half does not match the other



B is for
Border

the edges are ragged, blurred, or irregular



C is for
Color

color is uneven and may include shades of black, brown, or tan



D is for
Diameter

there is a change in size, usually an increase



E is for
Evolving

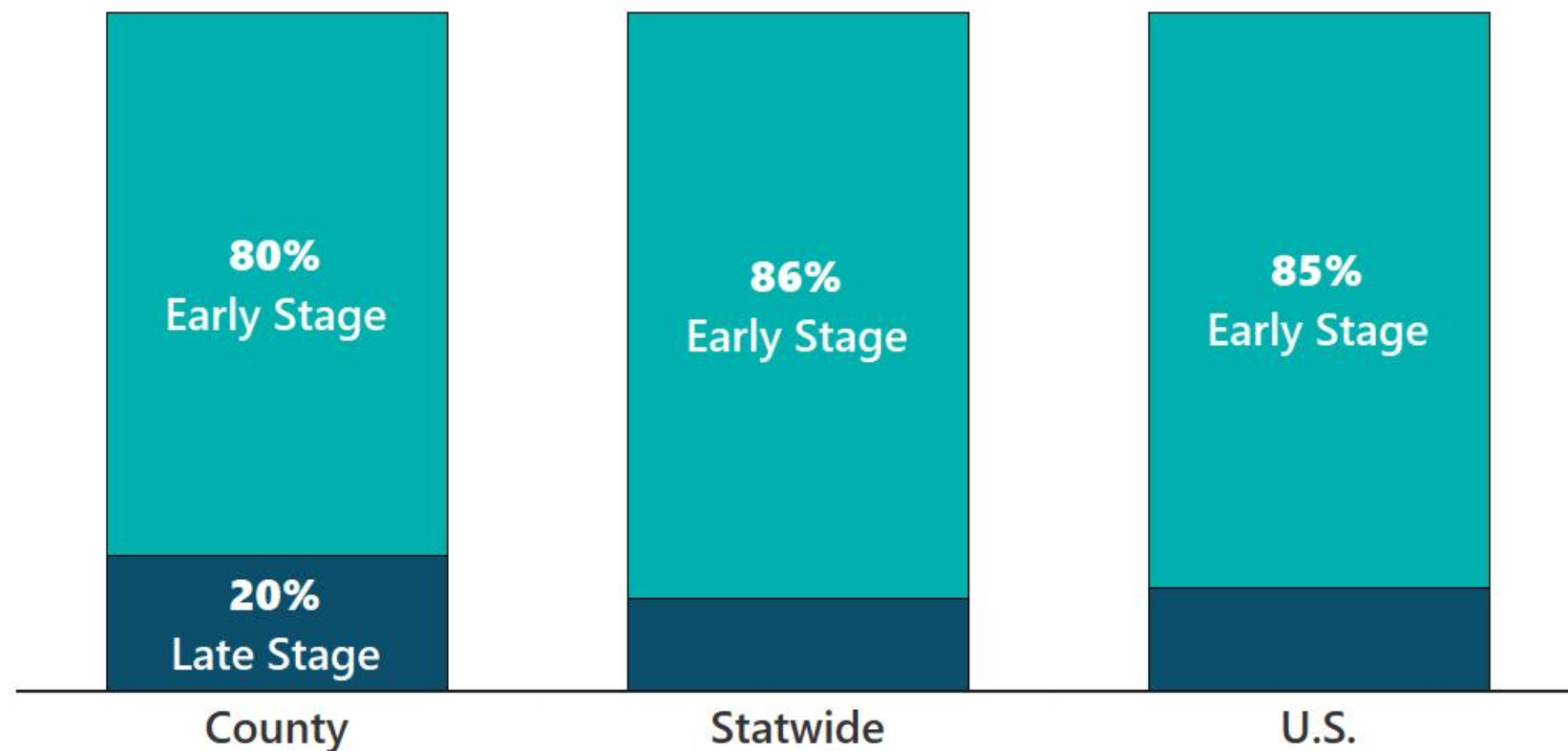
the mole has changed over the past few weeks or months

American Academy of Dermatologist

[Check out the Iowa Cancer Registry Melanoma Spotlight](#)

#5 | Melanoma Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



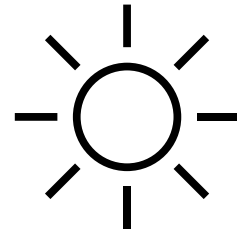
20%
Diagnosed at a
Late Stage

What can you do to prevent melanoma?

~92% of melanoma cases are attributable to UV exposure



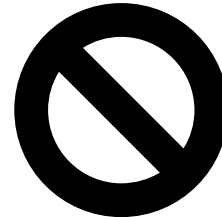
Wear broad spectrum sunscreen with at least SPF 30



Avoid being in the sun between 10am – 2pm



Wear long sleeves and hats and sit in the shade when outdoors



Do not use indoor tanning beds

Just one indoor tanning session increases a person's chances of developing melanoma by 20%

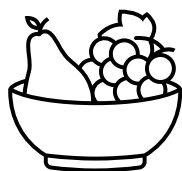
Using a tanning bed before age 35 increase a person's risk for melanoma by 75%

How can you reduce your risk for cancer?

~**40%** of cancers in the US are attributable to modifiable risk factors
(i.e., smoking, alcohol, diet, infections, etc.)



Do not smoke or use
any form of tobacco
Make your home
smoke-free



Enjoy a healthy diet



Avoid too much sun,
use sun protection



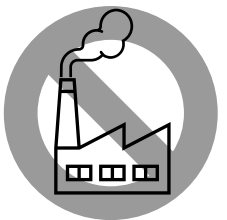
Limit alcohol
consumption



Be physically active



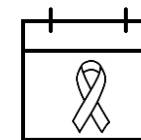
Vaccinate against
Hepatitis B and HPV



Reduce indoor and
outdoor air pollution
(including radon)



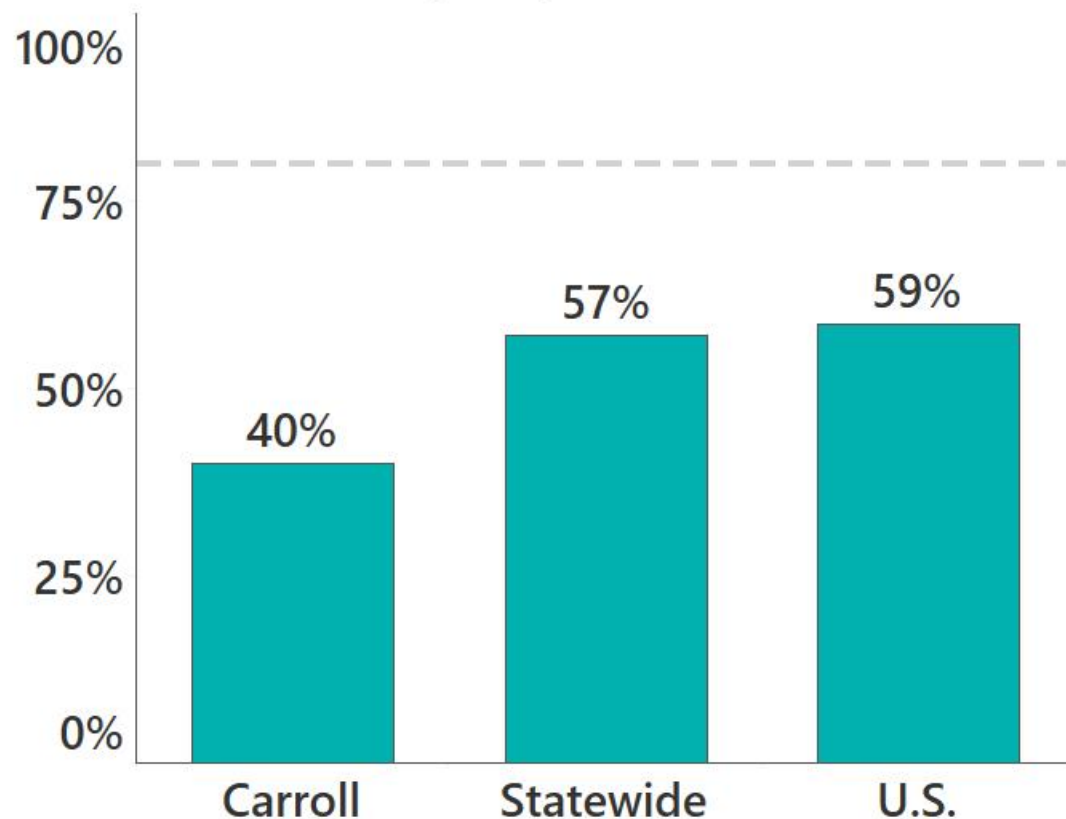
Decrease excess
body weight



Get the appropriate
cancer screenings for you!

A vaccine that prevents cancer: HPV

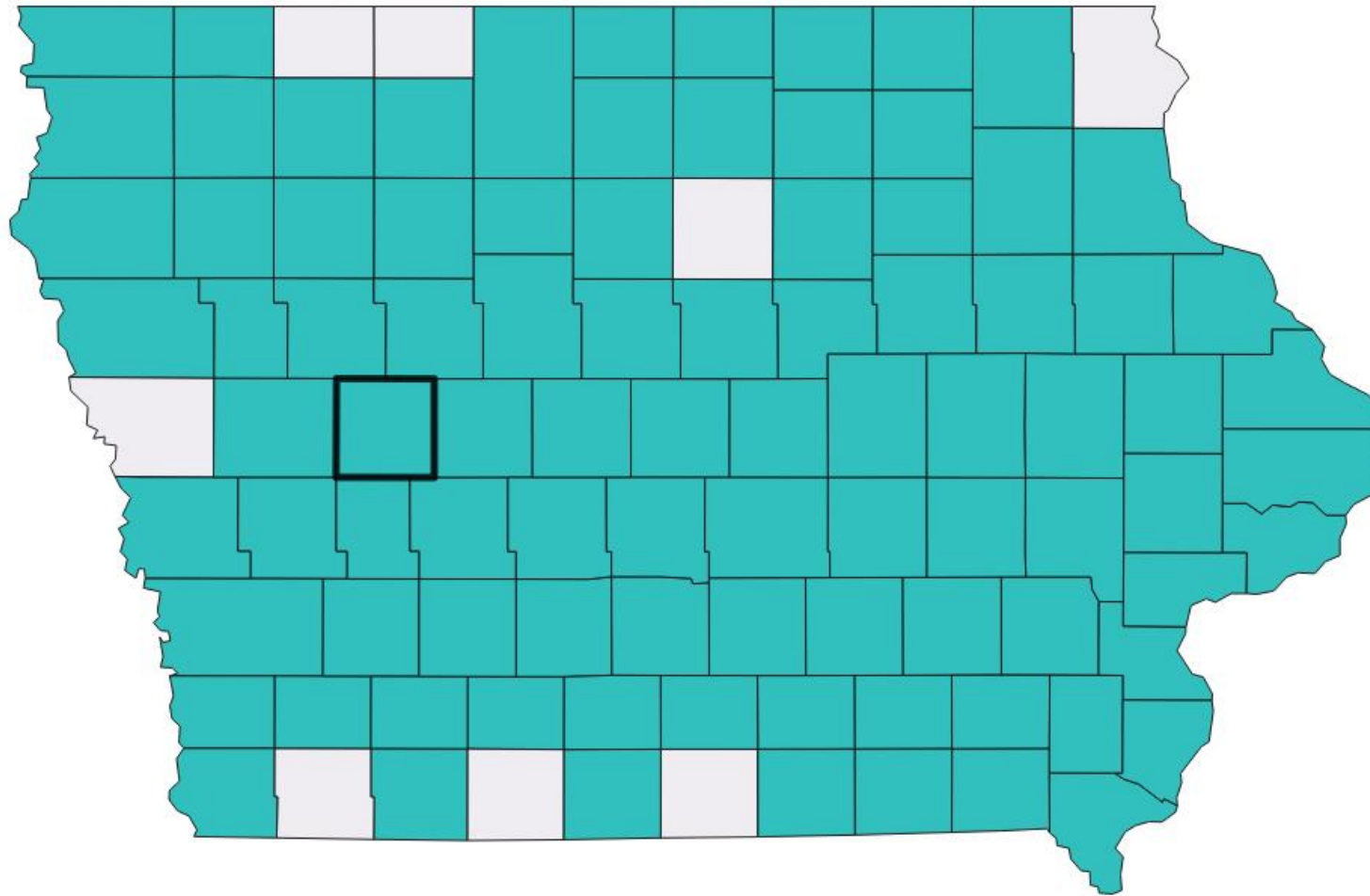
Adolescents ages 13-15 who have completed their HPV vaccine series (2022)



- HPV infection can cause cancers of the cervix, mouth and throat, anus, rectum, penis, vulva, and vagina.
- Iowa has the highest rate of oropharyngeal cancer in the U.S.
- Vaccine provides safe, effective, and lasting protection against HPV, thus reducing cancer risk
- Recommended at age 11 or 12 years, when immune response is best & before HPV exposure

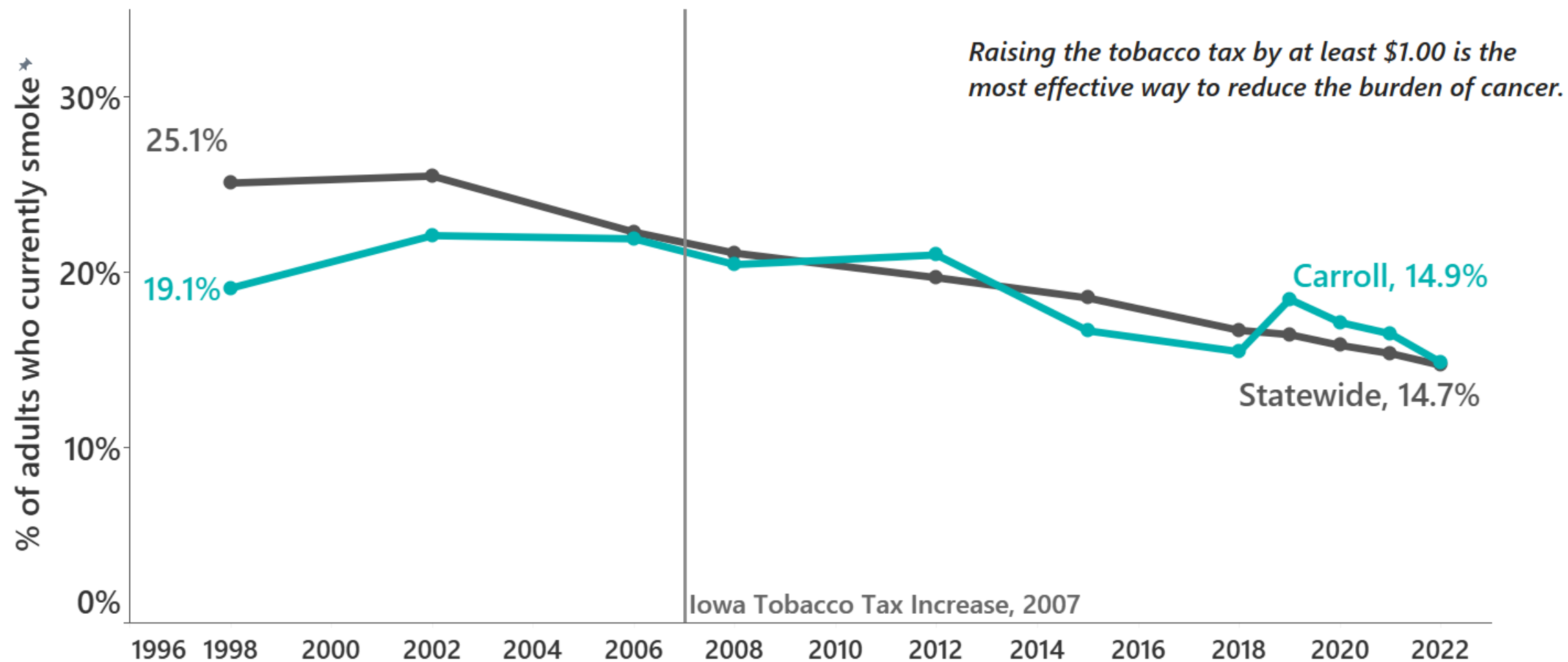
*Data from 2022 survey
Goal: 80% by 2027*

After the last tobacco tax was passed in 2007,
smoking rates **decreased** in **92%** of Iowa counties



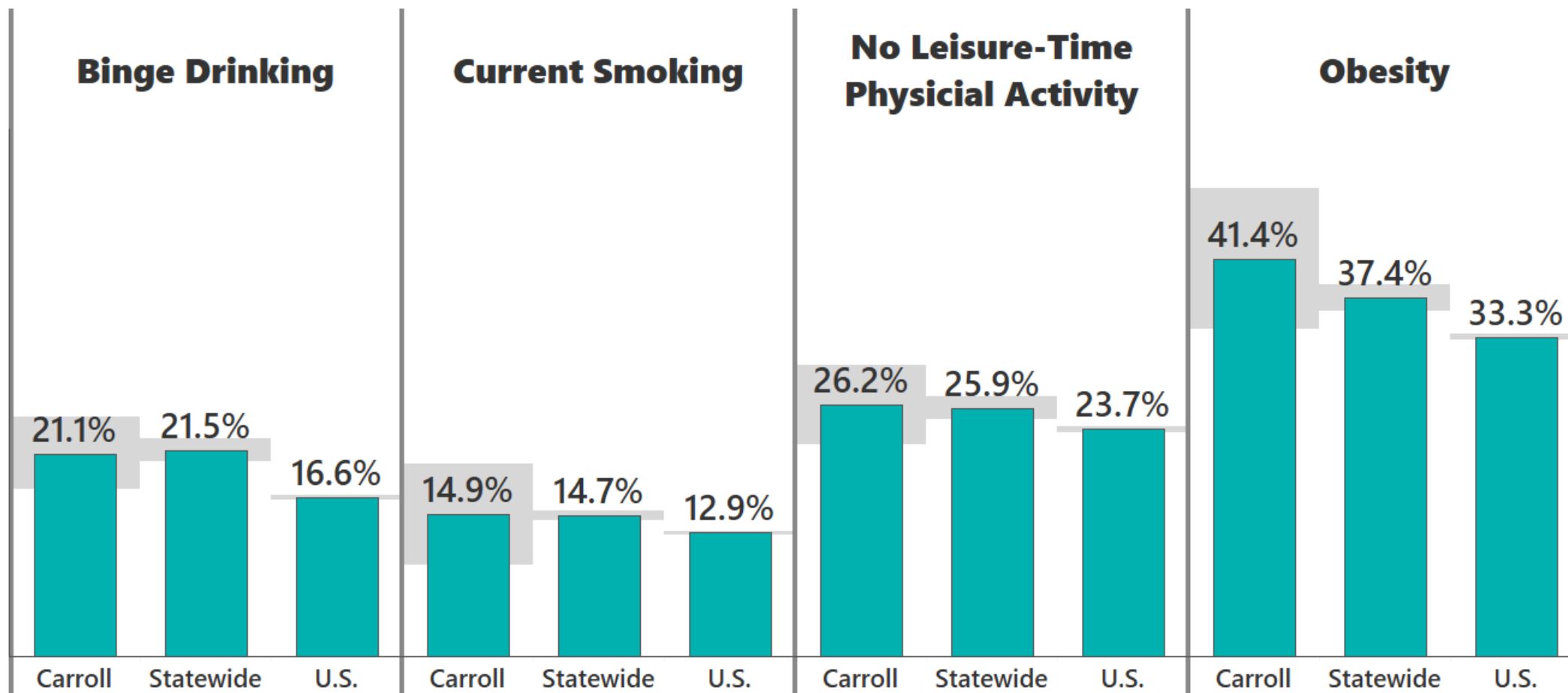
After the last increase to the tobacco tax was passed in 2007, smoking rates **decreased*** in Carroll County

**Determined by comparing data from 2004-2007 combined to 2011-2013 combined*



Other Cancer Risk Factors

**Lower
is
better**



Want to know your cancer risk?

Take the American Cancer Society's cancer risk assessment to learn more about what factors might affect your personal cancer risk and actions you can take to help lower your risk.

<https://acscancerrisk360.cancer.org/>



Resources to help understand
and address cancer in Iowa
communities

Iowa Comprehensive Cancer Control Program (CCCCP)

Work with partners to prevent cancer whenever possible and support cancer survivors across Iowa.

- ▶ The CCCCPC partners with many organizations, including the Iowa Cancer Consortium, Iowa's cancer coalition.
- ▶ CCCCPC is involved in the revision and implementation of the Iowa Cancer Plan.
- ▶ Currently CCCCPC is focused on increasing HPV vaccination, increasing lung cancer screening, and supporting cancer survivors.

<https://hhs.iowa.gov/public-health/cancer>
<https://canceriowa.org/iowa-cancer-plan/>



Iowa Cancer Consortium

Mission: To advance cancer prevention and control through advocacy, equity, and collaboration.

Vision: An Iowa where cancer is not a burden.

A non-profit cancer coalition that provides

- Connections and partnership
- Latest news and cancer updates via email
- Training and educational opportunities
- Grant opportunities and technical assistance
- Free cancer educational materials for distribution
- Virtually-hosted workgroups
- The Iowa Cancer Plan

www.canceriowa.org

Funded in part through a contract with the Iowa CCCCPC



Health and
Human Services



Iowa Cancer
Consortium

Blueprint for cancer control, the *Iowa Cancer Plan*

Chapters with sections that include priorities, strategies, and specific action steps which may be tailored to many settings to guide cancer control activities.

- 1. Health Equity:** identify and eliminate cancer health disparities.
- 2. Prevention and Risk Reduction:** whenever possible, prevent cancer from occurring.
- 3. Early Detection and Screening:** promote the benefits of screening tests to ensure early diagnosis.
- 4. Diagnosis and Cancer-Directed Therapy:** reduce barriers to care, promote evidence-based practices, and encourage participation in clinical trials and other forms of research.
- 5. Survivorship and End-of-Life Care:** ensure resources to optimize quality-of-life for cancer survivors and their families.



[https://canceriowa.org/
iowa-cancer-plan/](https://canceriowa.org/iowa-cancer-plan/)

"There is a lot we know about how to reduce our personal cancer risk. There is opportunity for the biggest impact when policies help us do that.

Effective policies

- make the healthy choice easier
- make the unhealthy choice harder
- provide protections from risk factors that are out of an individual's control"

- Iowa Cancer Consortium

Policy Examples

State-level

- Increase the tobacco tax by at least \$1.00
- Raise taxes on alcohol and set minimum unit prices
- Prohibit minors' use of tanning beds

Community & Organization-level

- Implementing tobacco- and nicotine-free policies
 - Zoning restrictions to prohibit tobacco shops from operating near schools or other tobacco retailers
 - Set and enforce limits on the number of places that sell alcohol and the distance between them
 - Reducing out-of-pocket costs for cessation treatments
 - Build communities that provide natural opportunity for physical activity (walkable/ bikeable/ accessible)
- Ensure access to affordable fresh food
 - Providing sunscreen and UV-safety education in outdoor occupational, recreation/tourism, and childcare settings
 - Engaging community health workers, developing clinic-specific interventions, and supporting care navigation
 - Include cancer-relevant strategies in your hospital's community health needs assessments or public health department's needs assessment

More ways to get involved

American Cancer Society Cancer Action Network

Engage American Cancer Society Cancer Action Network (ACSCAN) to promote cancer-relevant legislation

www.fightcancer.org



Contact your legislator

Find your legislator at

<https://www.legis.iowa.gov/legislators/find>

Every community is different

Your expertise is key

Your expertise as community members and leaders and local policy makers **is key to answering the question of what to do next.**

You know best what your community needs and what will work.

Cancer control partners can help

Cancer control partners can provide ideas, advise, and help find data, evidence, and other resources, but *ultimately you are the experts.*

Take stock of the information presented today

A good place to start is by **taking stock of the information presented today**

- Where are opportunities for change within your county, town, or organization?
- Use the Iowa Cancer Plan for inspiration.
- Reach out to the Iowa Cancer Consortium for partnership in moving forward.

Carroll County Resources

Radon Tests

Radon test kits are available for \$10 from the Environmental Health Department in Carroll and the Iowa State University Extension Office in Denison.

For more information visit:

<https://www.carrollcountyiowa.gov/pview.aspx?id=21005&catID=563>

Well Testing

Water tests through the Grants To Counties Program are FREE, and our staff will take the sample and mail it in for you. We will make recommendations on how you can correct the problem if your well is contaminated.

Tests for arsenic, lead and other contaminants can also be arranged on a request basis.

<https://www.carrollcountyiowa.gov/pview.aspx?id=21009&catid=563>

Call the Environmental Health office if you would like to purchase a test or have your well tested: 712-792-9532

Resource Guide

Cancer in Iowa: 99 Counties Project



- Organizations and programs we presented today
- IHHS Programs
 - Tobacco Use Prevention and Control
 - Immunization Program
 - The Hepatitis Program
 - Radon
- Iowa Rural Health Association

In the next slides we will highlight...

- Cancer Cluster Concerns
- Agricultural Health Study
- Environmental Exposures and Health Risks Fact Sheets
- Iowa Private Well Grants Program
- Center for Health Effects of Environmental Contamination
- Center for Energy & Environmental Education's (CEEE) Environmental Health Program

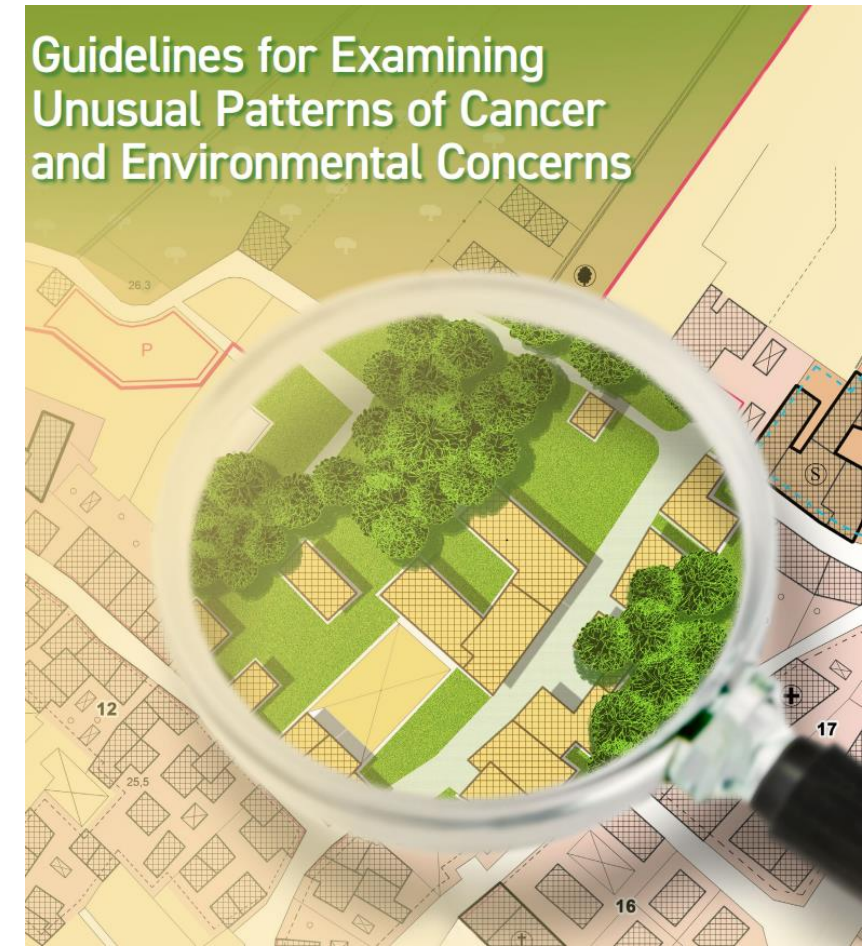
www.iowacancerregistry.org/99

What to do if you suspect a cancer cluster in your community

If you are concerned about cancer excess in your area, please email the Iowa Cancer Registry at

ICR-CancerConcerns@uiowa.edu

- We will ask you about the location, cancer types, and any exposure(s) of concern.
- If possible, ICR will conduct an analysis comparing the expected number of cancers to what's been observed.
- A meeting will be held to discuss the results.



Agricultural Health Study



The Agricultural Health Study (AHS) has been working for more than 30 years to understand factors that impact the health of farmers and their families.

The aim of this study is to understand how agricultural, lifestyle, and genetic factors affect the health of farming populations.

- Includes over 31,000 private and 5,000 commercial pesticide applicators from Iowa. Study is also following applicator's spouses and children
- Linked with Iowa Cancer Registry data to study risk of developing cancer among pesticide applicators

Environmental Exposures & Health Risks Fact Sheets

Environmental Health Sciences Research Center

Include information on

- Cancer and non-cancer health risks for each environmental exposure
- How the exposures are regulated
- What you can do to limit your exposure

Environmental Health Fact Sheets

- [Arsenic](#)
- [Atrazine](#)
- [Glyphosate](#)
- [Nitrate](#)
- [Radon](#)



Nitrate & Health Fact sheet



IOWA
College of Public Health

Introduction

"[...]consistent associations have been discovered for colorectal cancer. [...] less studied, however, positive associations have been found at levels below the MCL for cancers of the thyroid, ovary, and kidney"

Health Risks Associated with Nitrate

Cancer Health Risks

The International Agency for Research on Cancer (IARC) classifies nitrate in food and water as "probably carcinogenic to humans" (1, 5). Studies conducted in Iowa have shown a positive correlation between exposure to nitrate in the drinking water and some cancers (1). Some studies conducted in Iowa have analyzed cancer risk at or above levels one-half the maximum contaminant level (MCL) over long periods of time. From these studies, consistent associations have been discovered for colorectal cancer. Cancers at other sites have been less studied, however, positive associations have been found at levels below the MCL for cancers of the thyroid, ovary, and kidney (6).

Non-Cancer Health Risks

Methemoglobinemia, or Blue Baby Syndrome, is a condition in which not enough oxygen is transported in the blood to the body's tissues (3). Blue Baby Syndrome can occur when infants are exposed to nitrate levels higher than 10 mg/L. Elevated prenatal nitrate exposure in Iowa has also been connected to increased risk of birth defects, including spina bifida, limb deficiencies, and cleft palate (7,8).

How is Nitrate regulated?

- The EPA established the maximum contaminant level for nitrate to be 10 mg/L in drinking water, to protect infants against methemoglobinemia, or Blue Baby Syndrome (7, 9).
- Public water suppliers must test for nitrate and present results to consumers and the state through consumer confidence reports (3).
- Private wells are not required to be tested for nitrate, and those with water sourced from a shallow well, less than 50 feet, face a disproportionate risk of high nitrate exposure (3,10).

What can you do?

- Test well water for nitrate once a year if the well is privately-owned.
- Water purification methods that remove nitrate include reverse osmosis, ion exchange, and distillation. Using Brita filters, refrigerator filters, and boiling water are not effective at removing nitrate (7).
- Maintain a healthy diet rich in antioxidants and limited in processed, cured, and red meats (1). **Published September 2024**
Questions? Visit our website EHSRC.org

Iowa Private Well Grants Program

Iowa Health & Human Services

Iowa's [Private Well Grants Program](#) (PWG) provides free water testing to all private well owners and users for the analytes listed.

The Iowa DNR recommends that all private well owners have their water tested at least annually.

Analytes

- [Bacteria/coliform](#) (annually)
- [E.coli/fecal coliform](#) (annually)
- [Nitrate](#) (annually)
- [Arsenic](#) (every 3 years)
- [Manganese](#) (every 3 years)
- [PFAS](#) (requires pre-approval from the DNR)

To get your private well tested, please contact your local county health department.

[County Health Department - contact list](#)

<https://hhs.iowa.gov/public-health/environmental-health/private-well-grants>

<https://www.iowadnr.gov/environmental-protection/water-quality/private-well-program/well-testing>

Center for Health Effects of Environmental Contamination (CHEEC)

University of Iowa

CHEEC supports and conducts research to identify, measure and study adverse health outcomes related to exposure to environmental toxins.

CHEEC was established through the 1987 Iowa Groundwater Protection Act and has focused its efforts to date mainly on drinking water contaminants.

For questions about environmental contaminants, please contact CHEEC at the email address below.

The logo for the Center for Health Effects of Environmental Contamination (CHEEC) features the word "CHEEC" in a bold, blue, sans-serif typeface.

Director David Cwiertny

cheec.uiowa.edu

Email: cheec@uiowa.edu

Center for Energy & Environmental Education's (CEEE) Environmental Health Program

Highlighting upstream solutions to protect children, climate, and health.

Raises awareness about the link between harmful chemicals and their impacts to both people and climate.

Initiatives focus on community practices and state strategies that significantly reduce Iowan's exposure to common hazardous pollutants.

Contact for more information and resources about how to reduce environmental exposures that may contribute to cancer development.



ceee.uni.edu | uni-ceee@uni.edu



University of Northern Iowa
Center for Energy & Environmental Education

Other initiatives in Iowa



The Harkin Institute



Iowa
Environmental
Council



Iowa
Farmers
Union

Cancer and Environmental Risk Factors in Iowa

The Harkin Institute and the Iowa Environmental Council are exploring the relationship between environmental risk factors and cancer rates in Iowa.

<https://www.iaenvironment.org/our-work/cancer-and-environmental-risk-factors-in-iowa/>



Holden Comprehensive
Cancer Center

Expert Panel

UI Holden Cancer Center is bringing renowned national and international cancer experts together to investigate Iowa's cancer rates.



Health and
Human Services

Cancer Drivers in Iowa

Governor Reynolds and the legislature passed Senate File 647, which created a collaborative project with Iowa Health and Human Services and the University of Iowa College of Public Health to examine the factors behind the rise in cancer rates in Iowa.



College of Public Health

<https://iphprp.org/cancer-drivers-in-iowa/>

Main Takeaways

Cancer is an important health issue facing your county.

There are proven ways to prevent cancer & find it early.
You can avoid risk factors and get screened.

Iowa has a strong Cancer Plan, resources, & organizations to help fight cancer.

Policy changes at the local and state levels can have a huge impact!
Please communicate your concerns & needs with your state representatives and local policymakers.

This is only the first step.

Thank you for attending!

If you would like to **share your thoughts** on this meeting, please participate in our brief survey. The QR code will direct you to the survey.

This brief survey should take no more than 5-10 minutes of your time.

