

# Cancer in Marshall County

Whitney Zahnd, PhD

March 11, 2026

# Who I am



## **Whitney Zahnd, PhD**

- Assistant Professor, University of Iowa College of Public Health
- Past-president of the Iowa Rural Health Association
- Member of the Cancer Epidemiology and Population Sciences Program, Holden Comprehensive Cancer Center
- Research: rural-urban differences in cancer prevention, incidence and outcomes, access to care

## These slides will be posted

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

[www.iowacancerregistry.org/99](http://www.iowacancerregistry.org/99)



If you have questions after, please email us at [ICR-99countiesproject@uiowa.edu](mailto: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](mailto: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.

# Stay Connected: Cancer Prevention & Future Action in Marshall County

If you are interested in staying involved with future action in Marshall County regarding cancer prevention, please visit this survey link or QR code.

<https://forms.office.com/g/w6zwZsFpfc>

Stay Connected: Cancer Prevention  
& Future Action in Marshall  
County



# 99 Counties Project Team



Iowa Cancer  
Consortium

[www.canceriowa.org](http://www.canceriowa.org)



IOWA  
HEALTH CARE

---

Holden Comprehensive  
Cancer Center

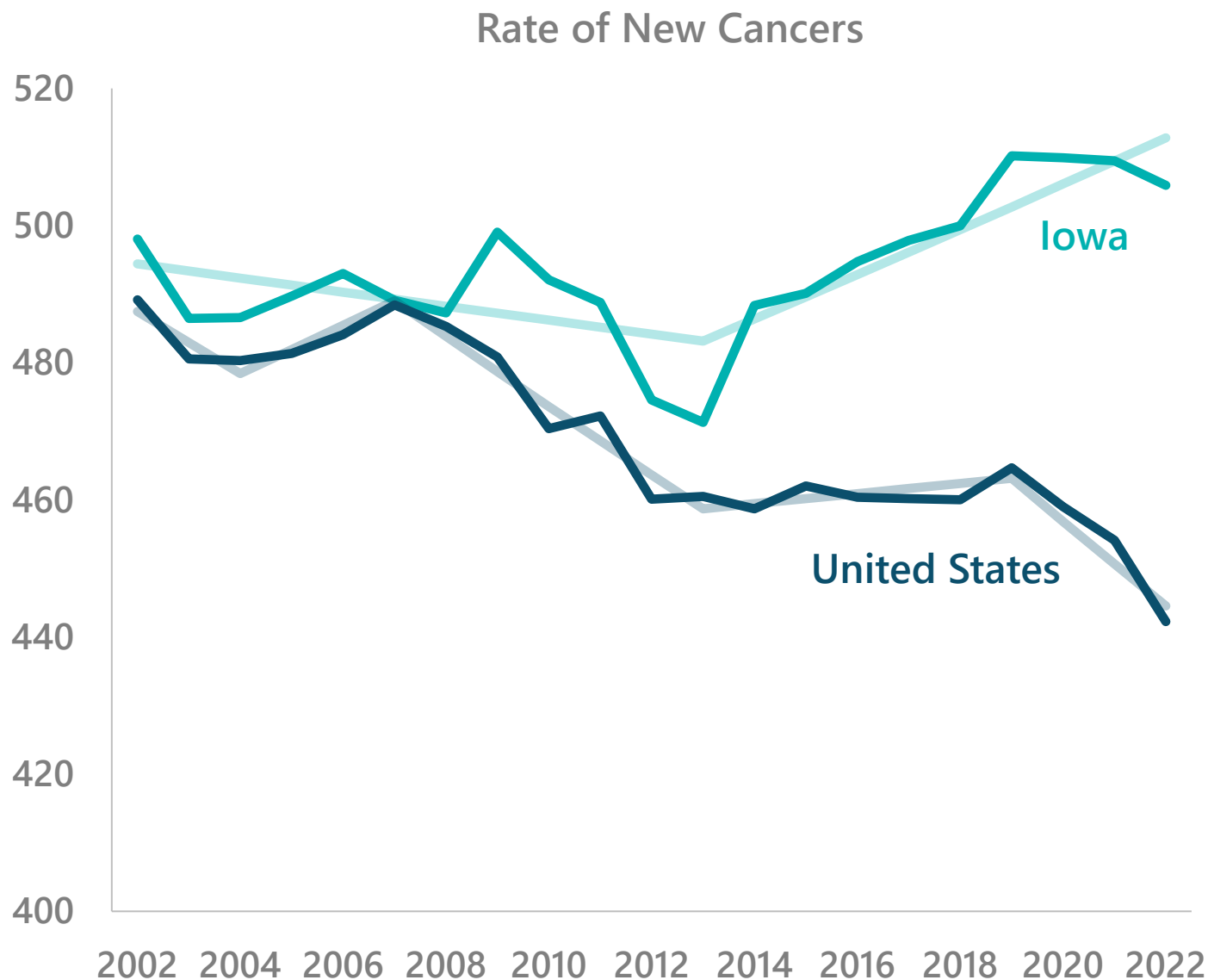
IOWA™ | Health and  
Human Services

**“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

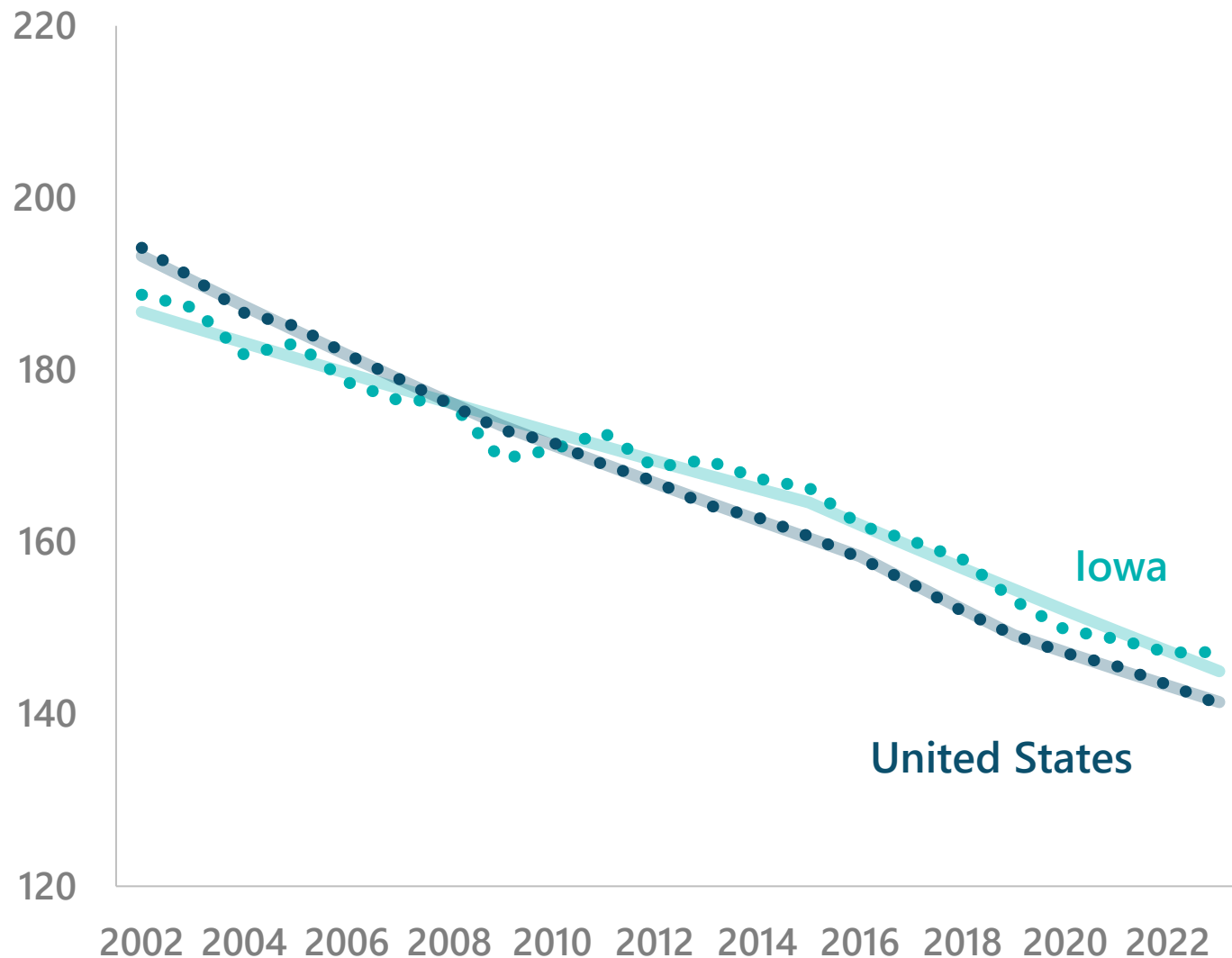


2020 data not included

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

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

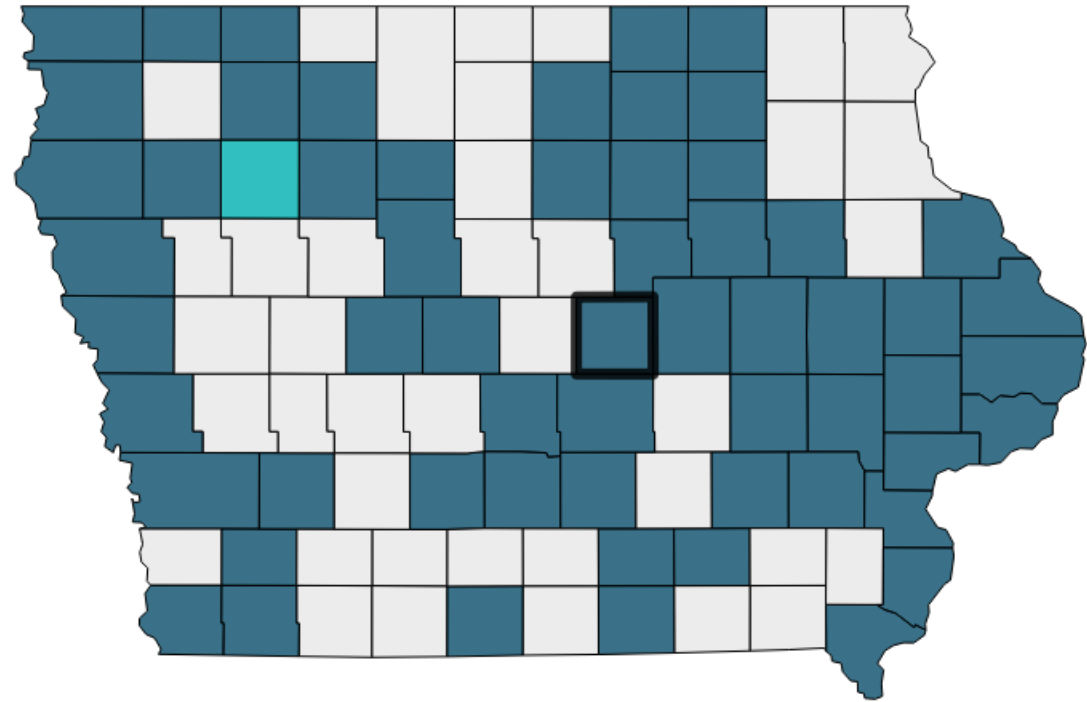
Rate of Cancer Deaths



# 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

2018-2022 Incidence

# 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



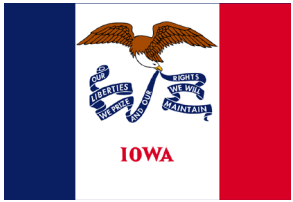
Provide Resources



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

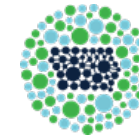
- Track environmental health-related diseases
- Assist local boards of health

### 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



Center for Health Effects of Environmental Contamination



environmental health sciences research center

# 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.

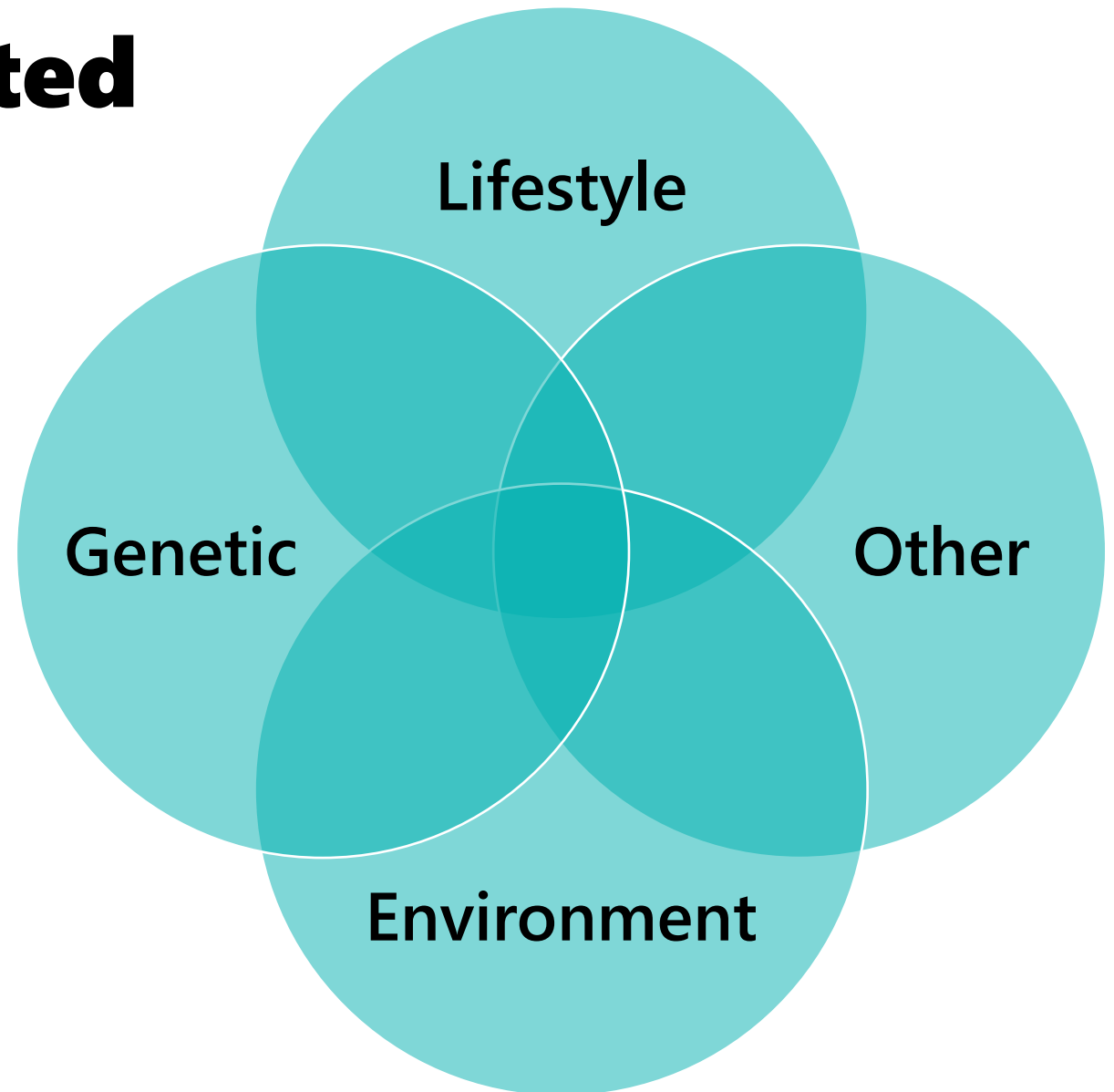


# **Background on Cancer**

# Cancer is Complicated

---

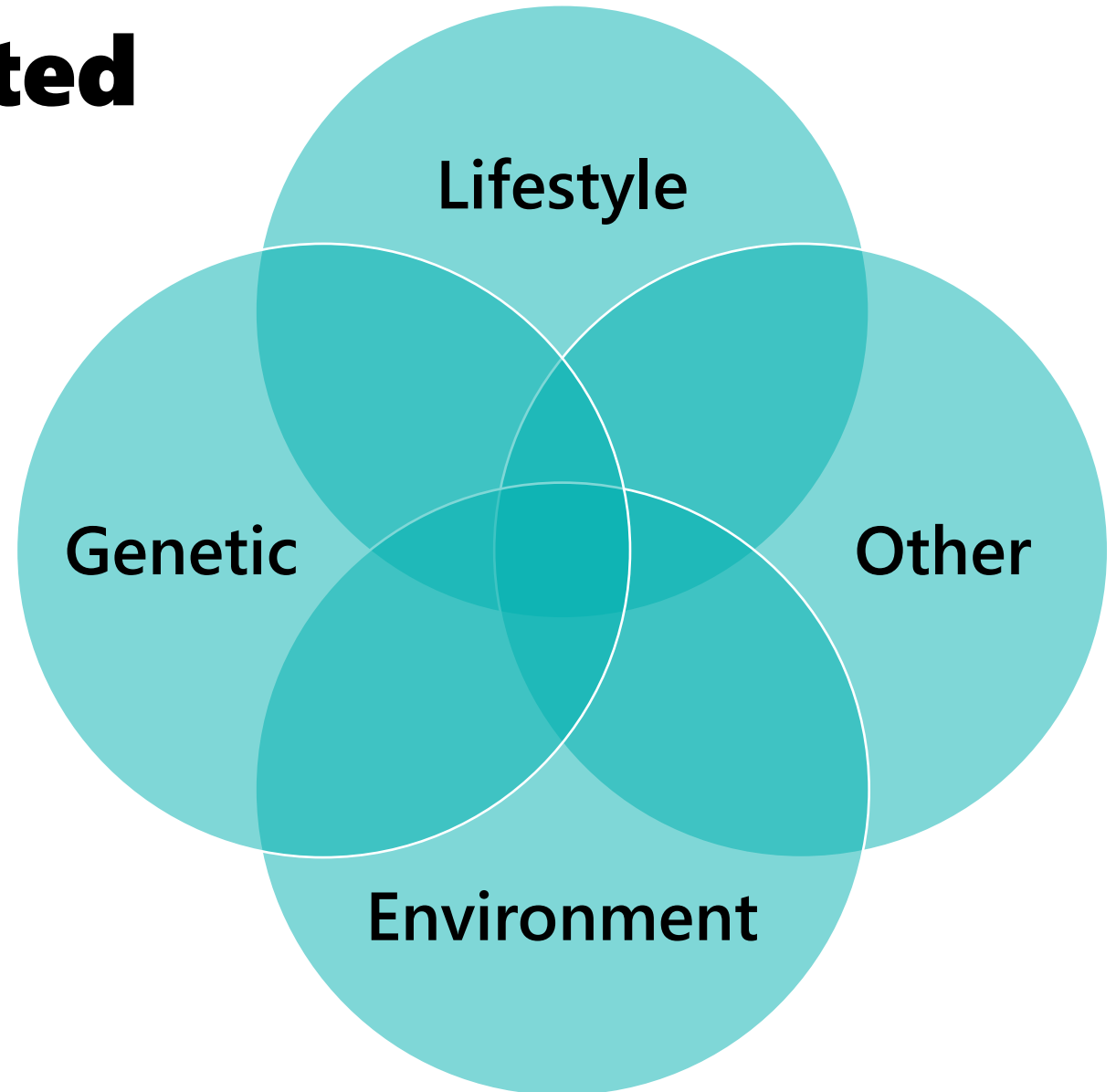
There is no one cause of cancer; it is a combination of different **genetic, lifestyle, and environmental** risk factors that change the function of cells

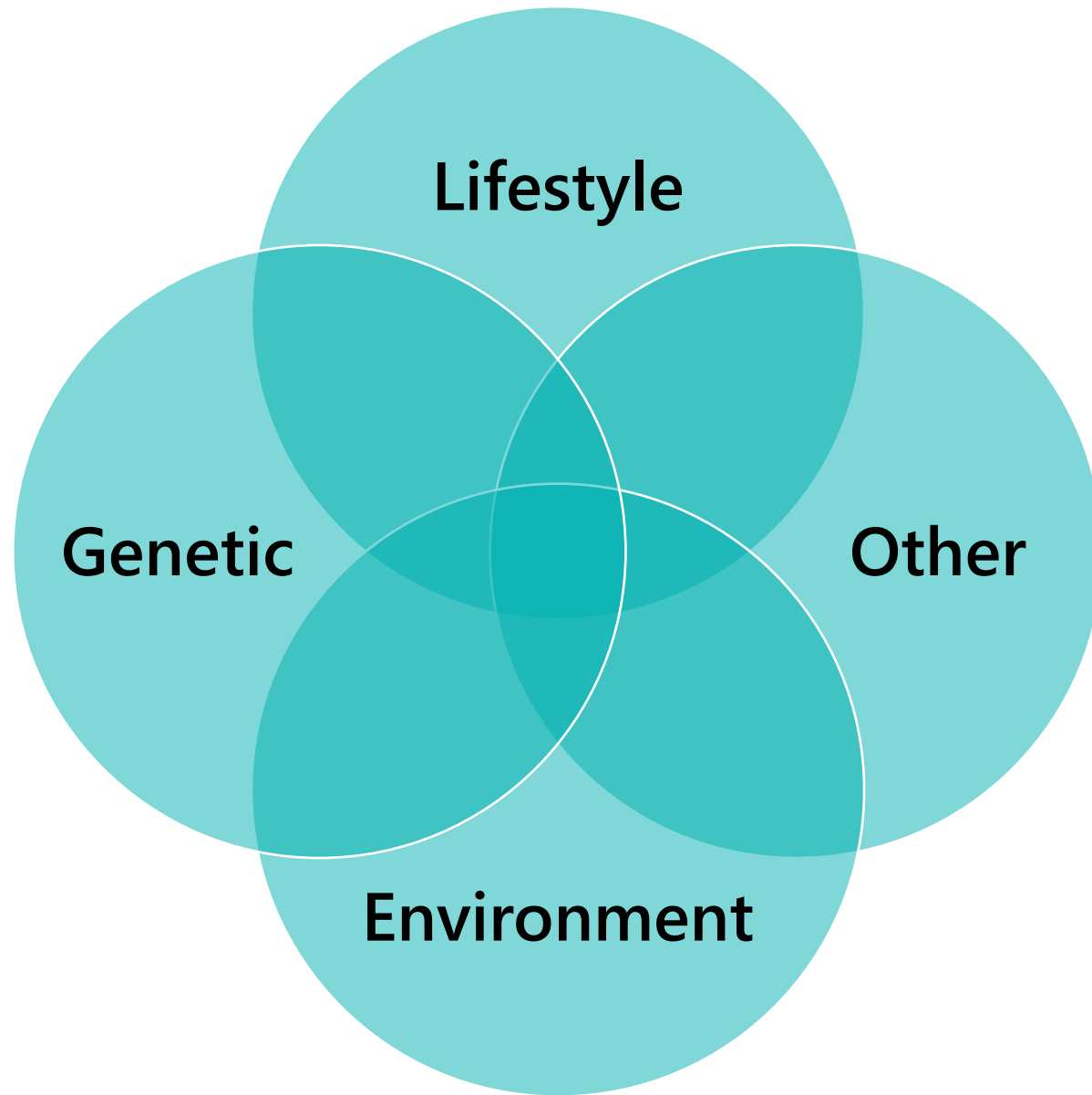


# Cancer is Complicated

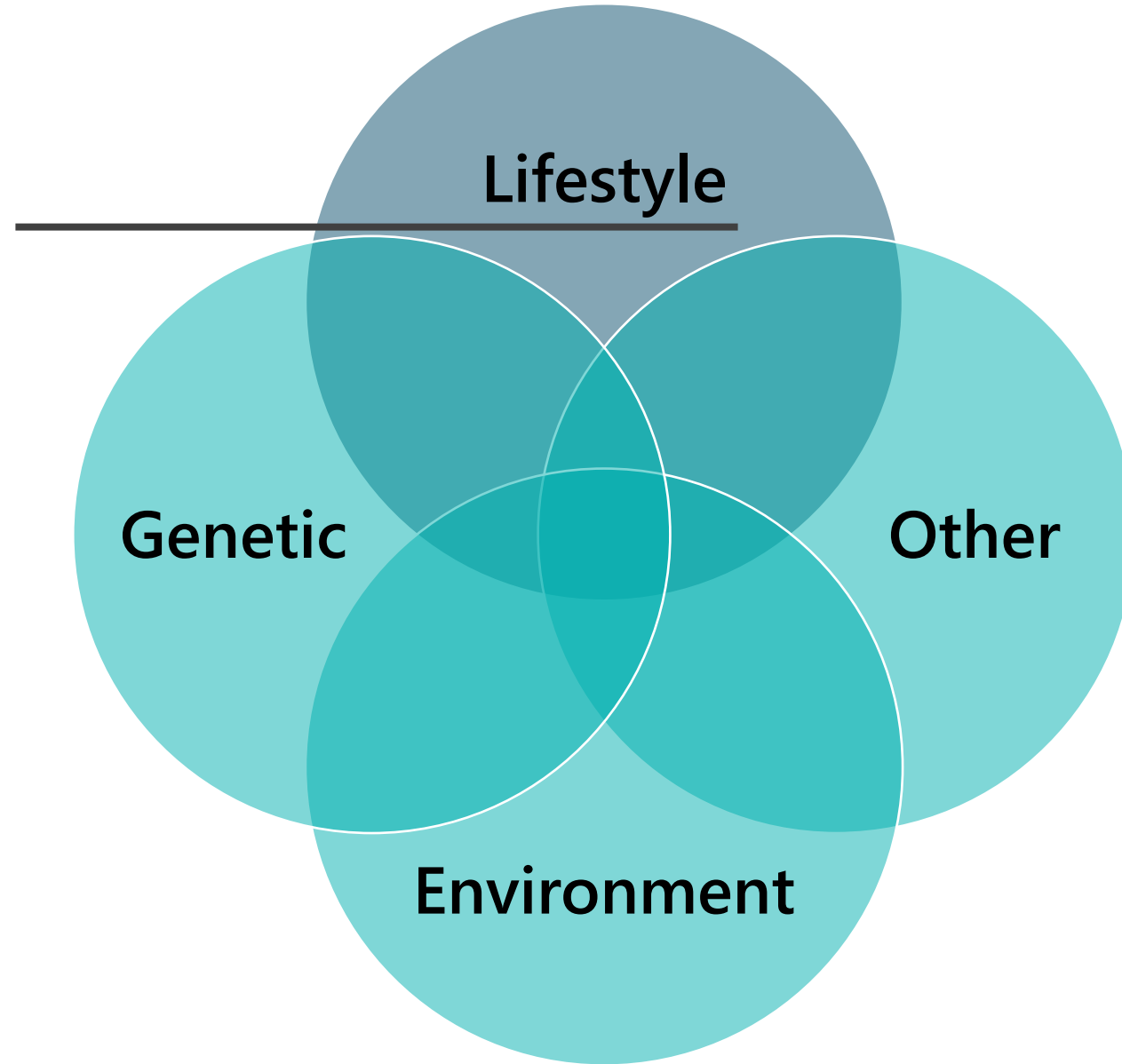
---

Risk factors are things that increase your chances of getting cancer

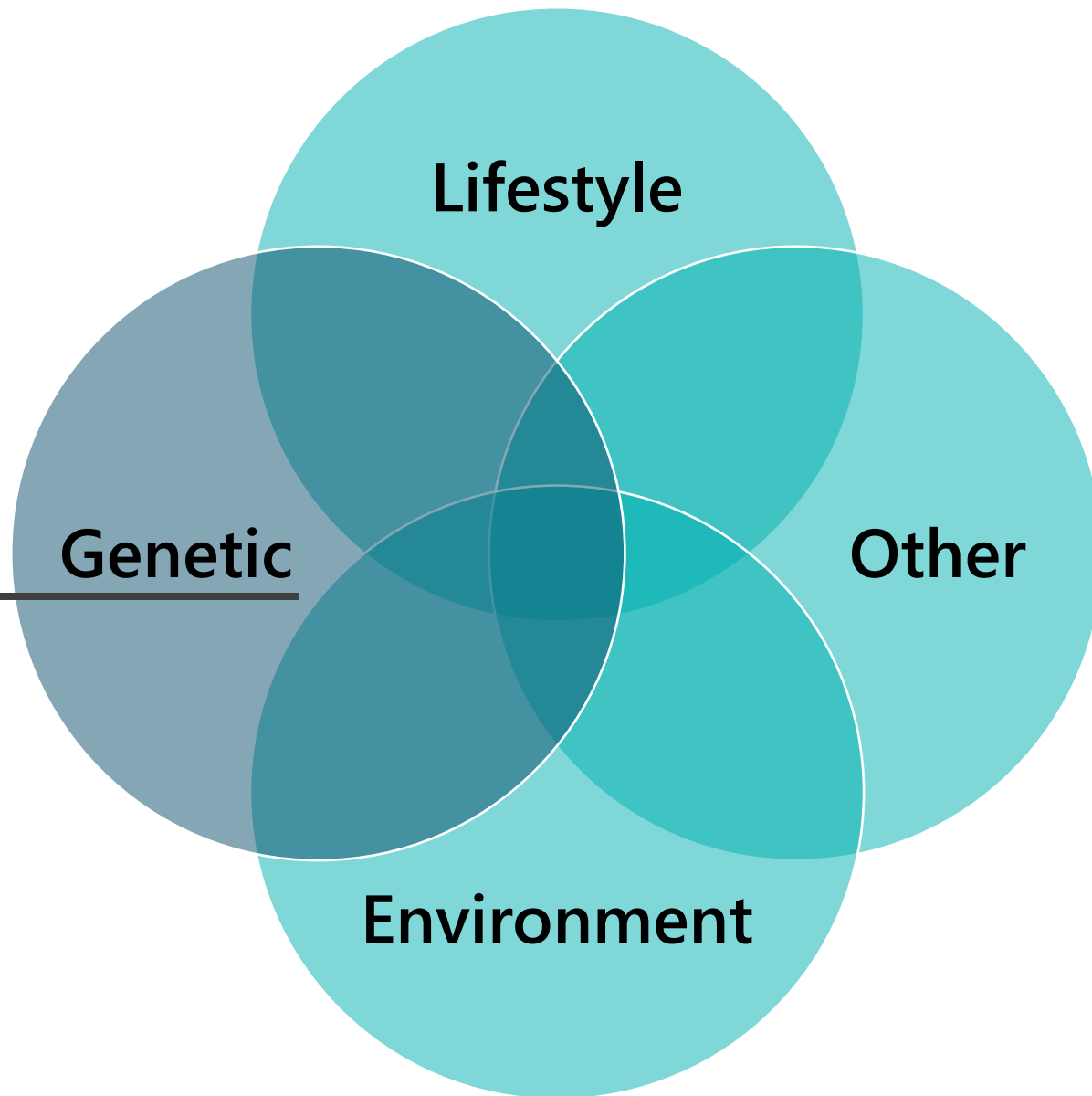


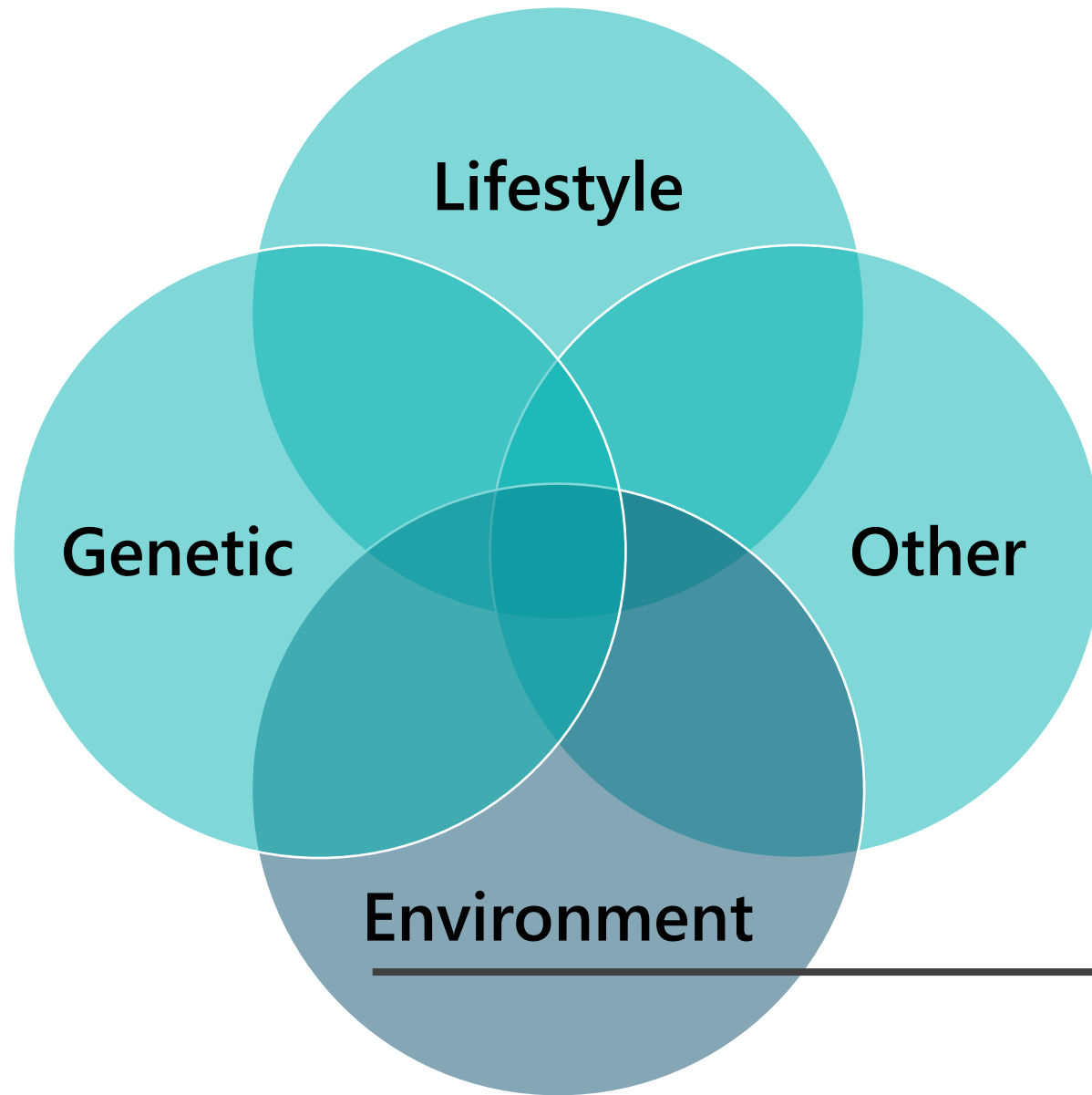


- Tobacco
- Alcohol
- Unhealthy diet
- Not being physically active
- Sunburns

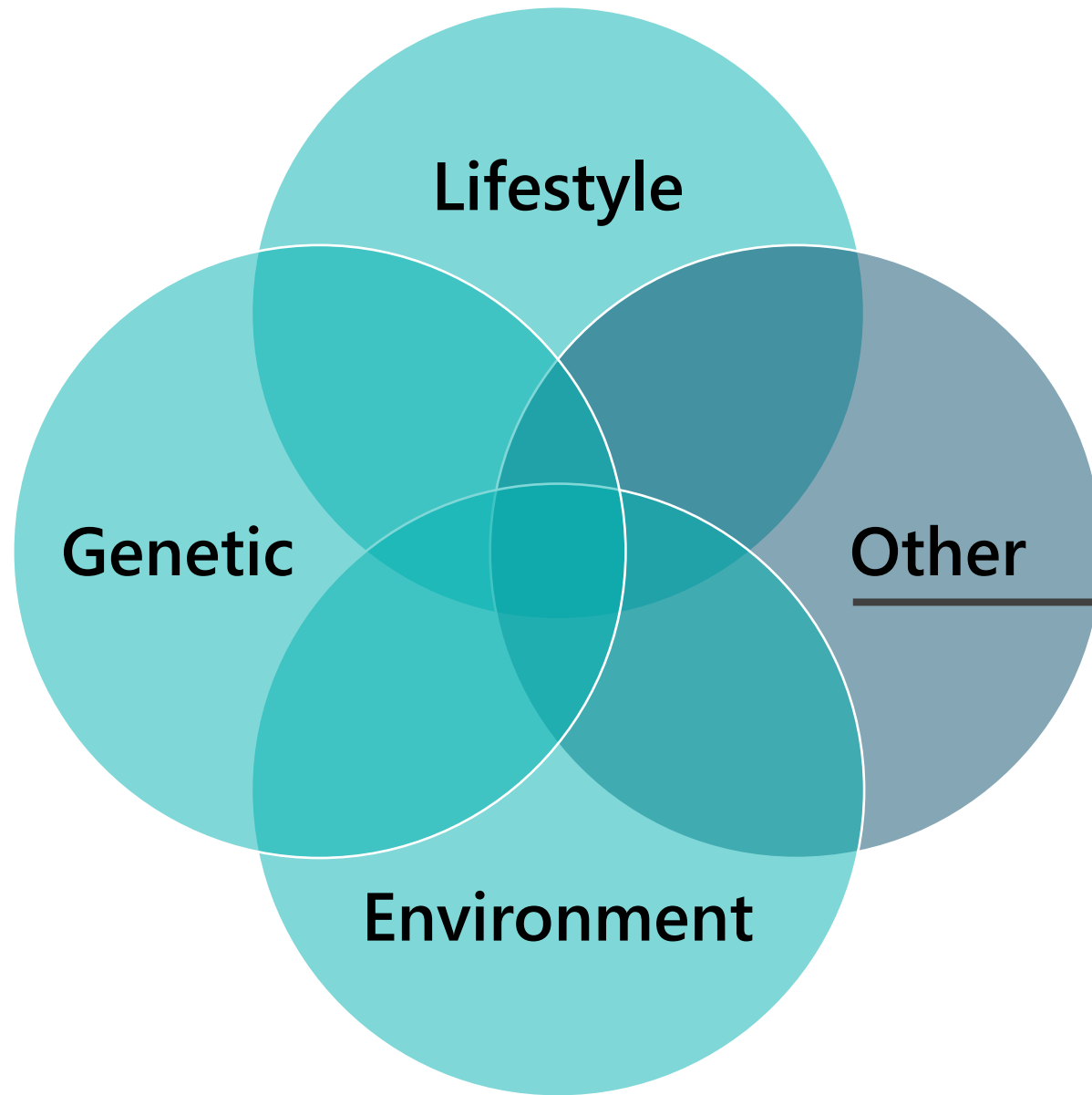


- Family history of cancer
- Random mutations





- Exposure to chemicals
- Radiation



- **Aging**
- **Viruses**  
(HPV, Hepatitis B)
- **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 rates?*
  - 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>

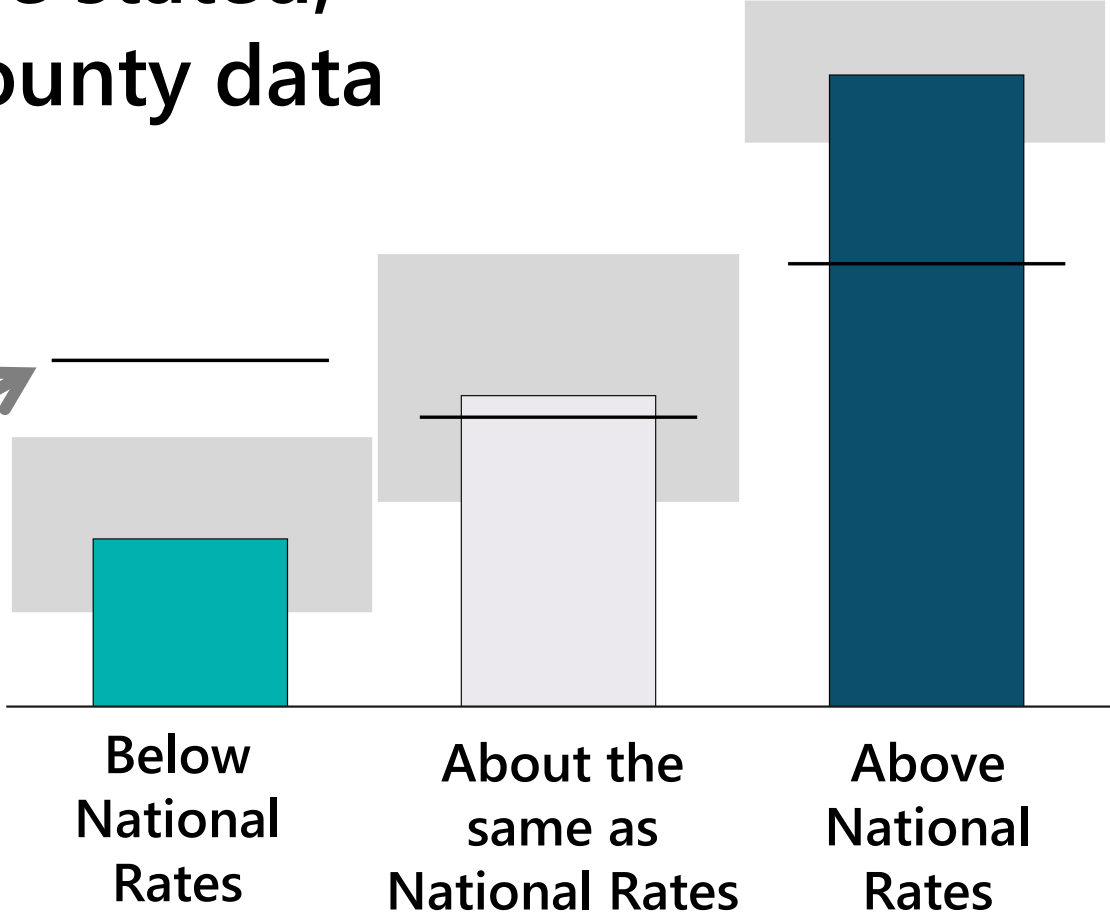
# How to read the graphs

Unless otherwise stated,  
bars are your county data

Grey boxes on  
bar graphs are  
95% Confidence  
Intervals.

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

Black lines on  
bar graphs  
are United  
States data





# **Cancer in Marshall County**

# New Cancers in Marshall County

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

Each year, there are about

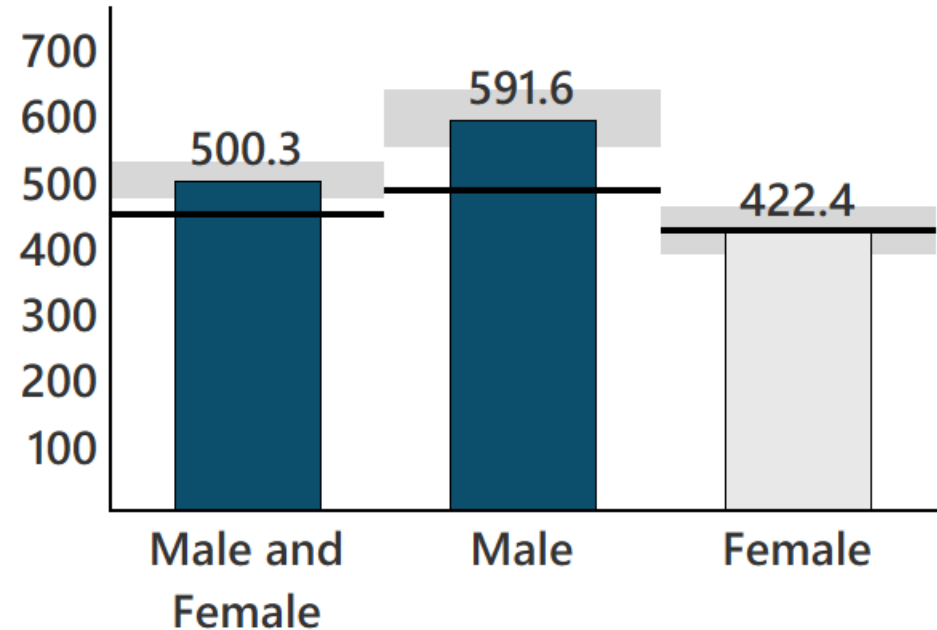
**264**

new cancers diagnosed in  
Marshall County

Cancer incidence rates in Marshall County  
are **higher than the U.S. average**

Ranks #50 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 Marshall County

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

Each year, there are about

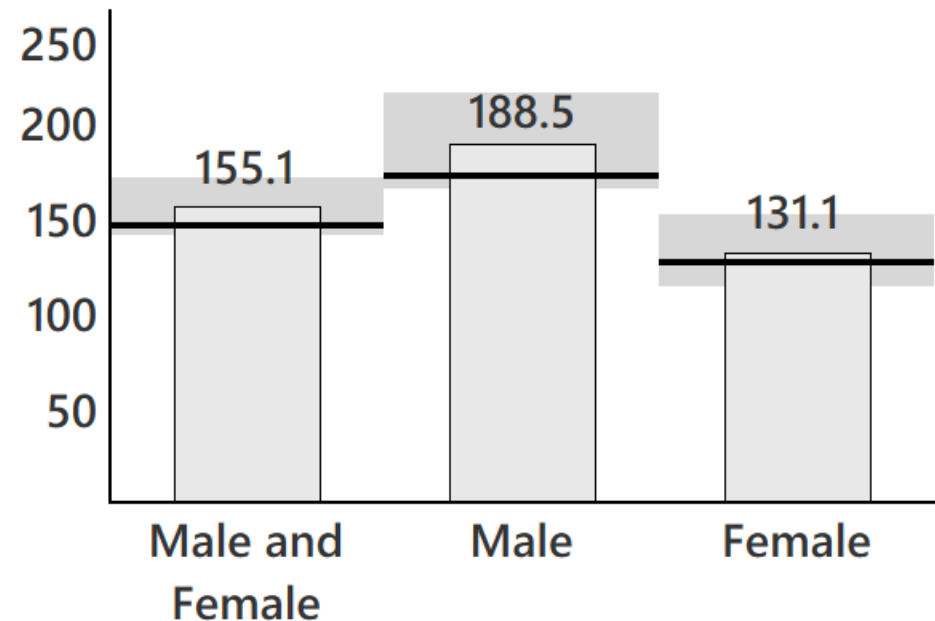
**86**

cancer deaths in Marshall County

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

Ranks #45 of 99 counties

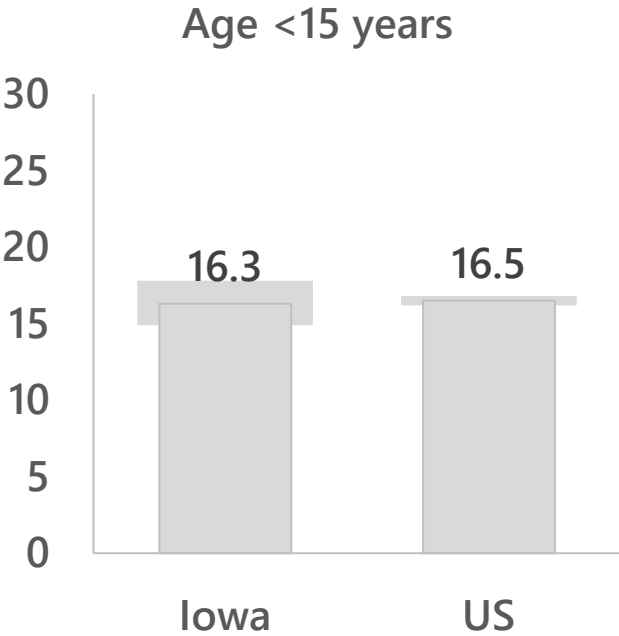
Cancer mortality rates are typically higher in men than women



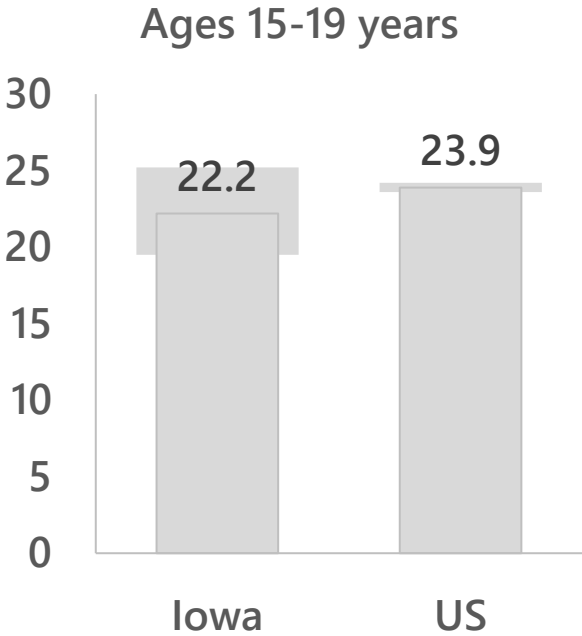
Age-Adjusted mortality rate per 100,000 (2019-2023)

# Pediatric, Adolescent, and Young Adult New Cancers in Iowa

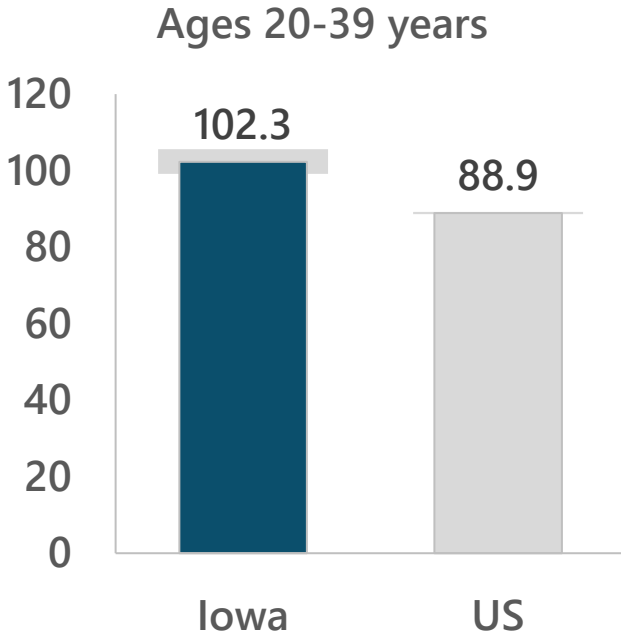
Pediatric cancer incidence rates in Iowa are **not different** than the U.S. rate



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

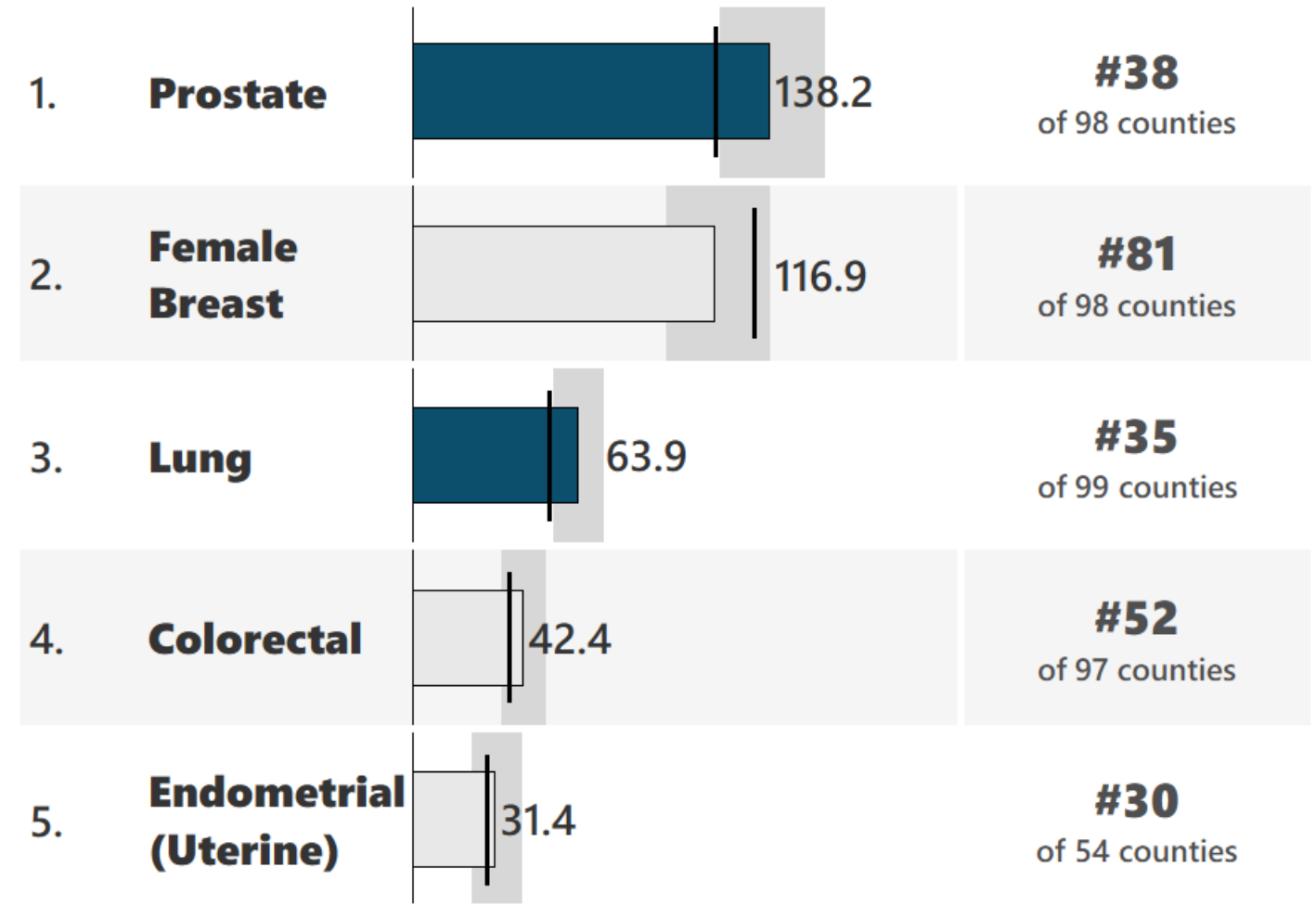


Young Adult cancer incidence rates in Iowa are **higher** than the U.S. rate



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

# Top cancers in Marshall County



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

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

# 1 | Prostate

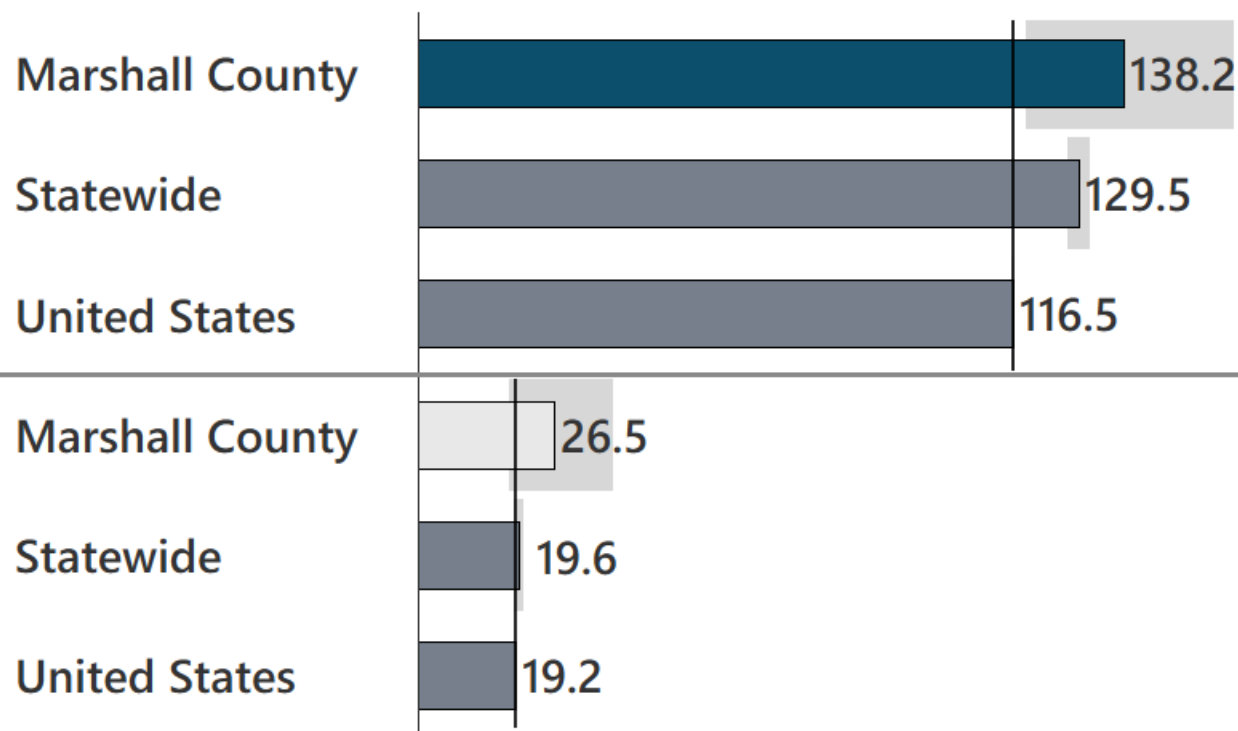
Each year in Marshall County, there are about...

**39**

New Cases per year

**6**

Deaths per year



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

# Prostate Cancer Screening

---

## Screening Guidelines

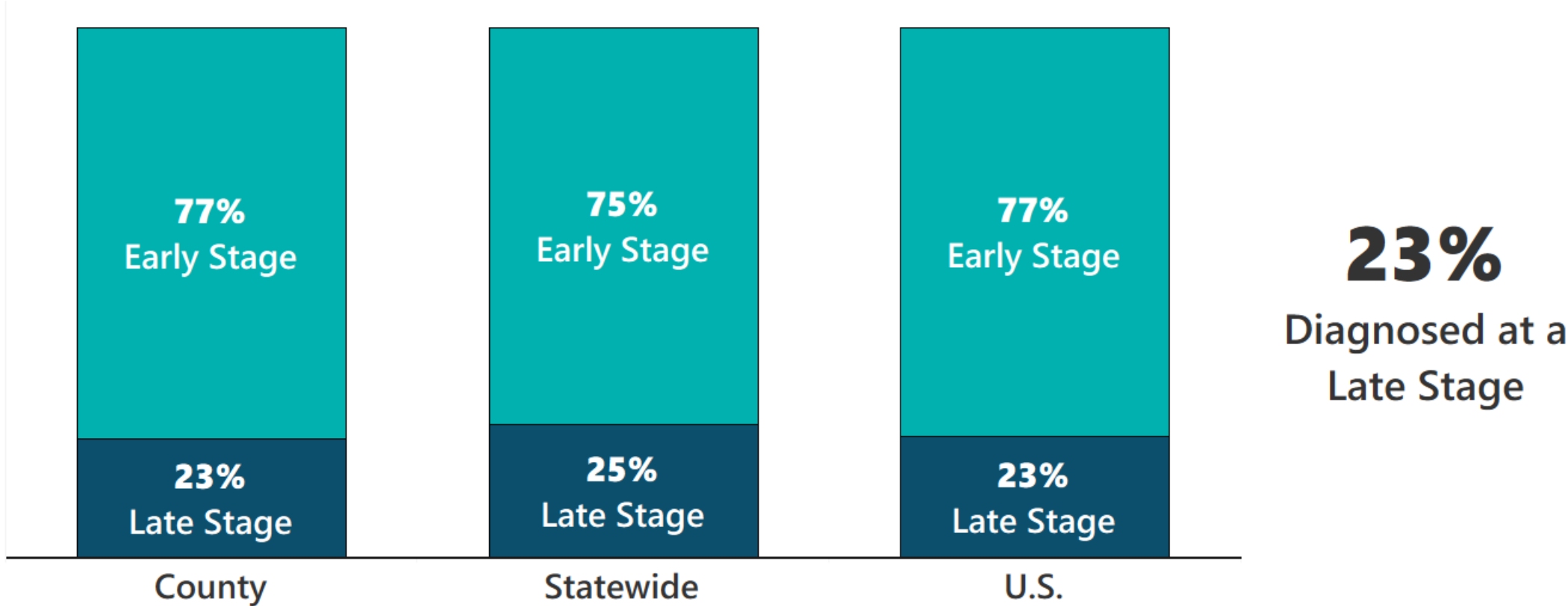
Screening test: Prostate-specific antigen (PSA) blood test

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



# 2 | Female Breast

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

**30**

New Cases per year

**<6**

Deaths per year

Marshall County

116.9

Statewide

137.3

United States

131.4

Marshall County

16.1

Statewide

17.4

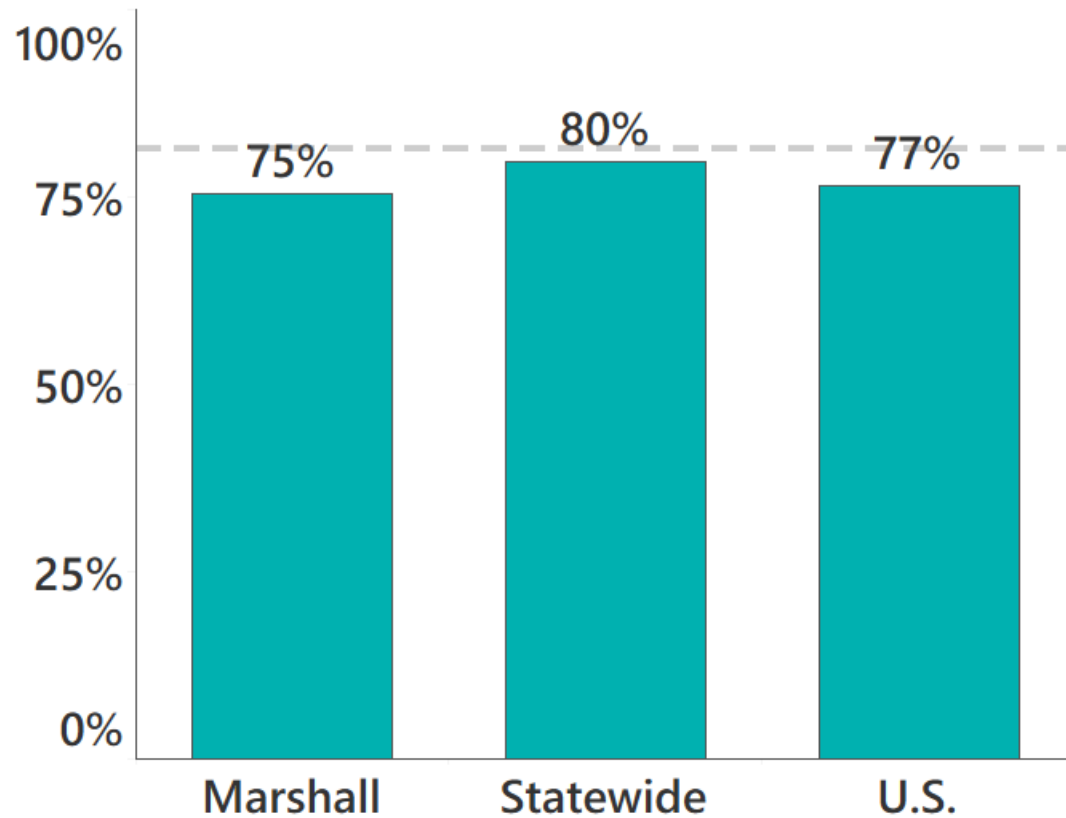
United States

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

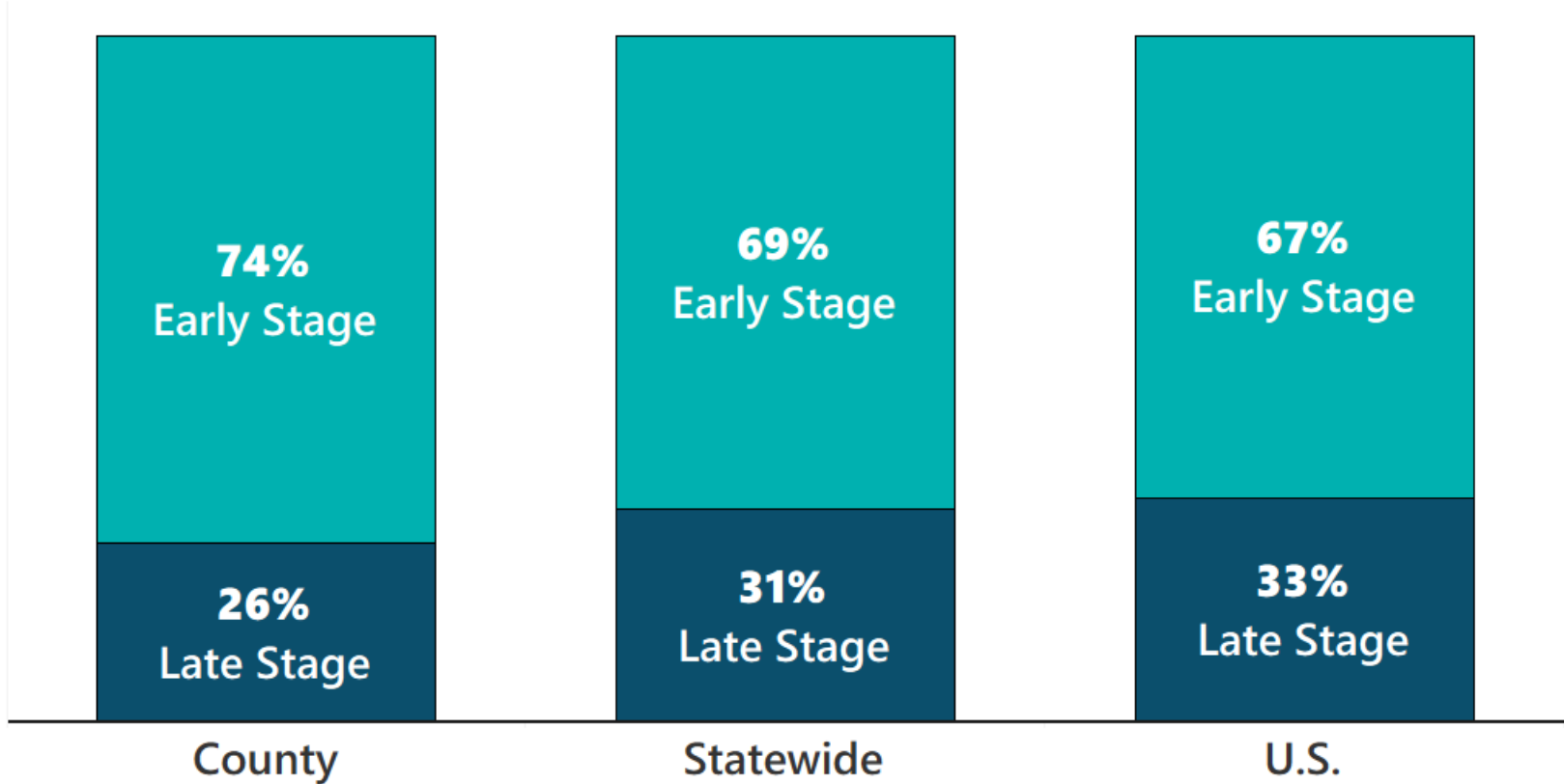
*(U.S. Prevention Services Task Force)*

*Data from 2022 survey*

*Iowa Cancer Plan 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

Data from 2013-2022

# 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

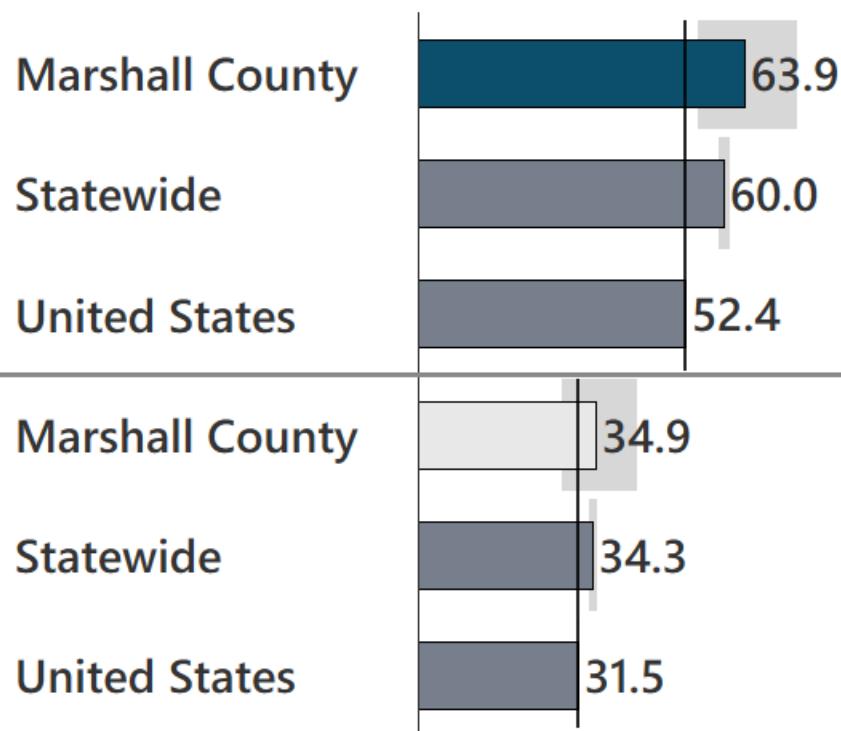
Each year in Marshall County, there are about...

**36**

New Cases per year

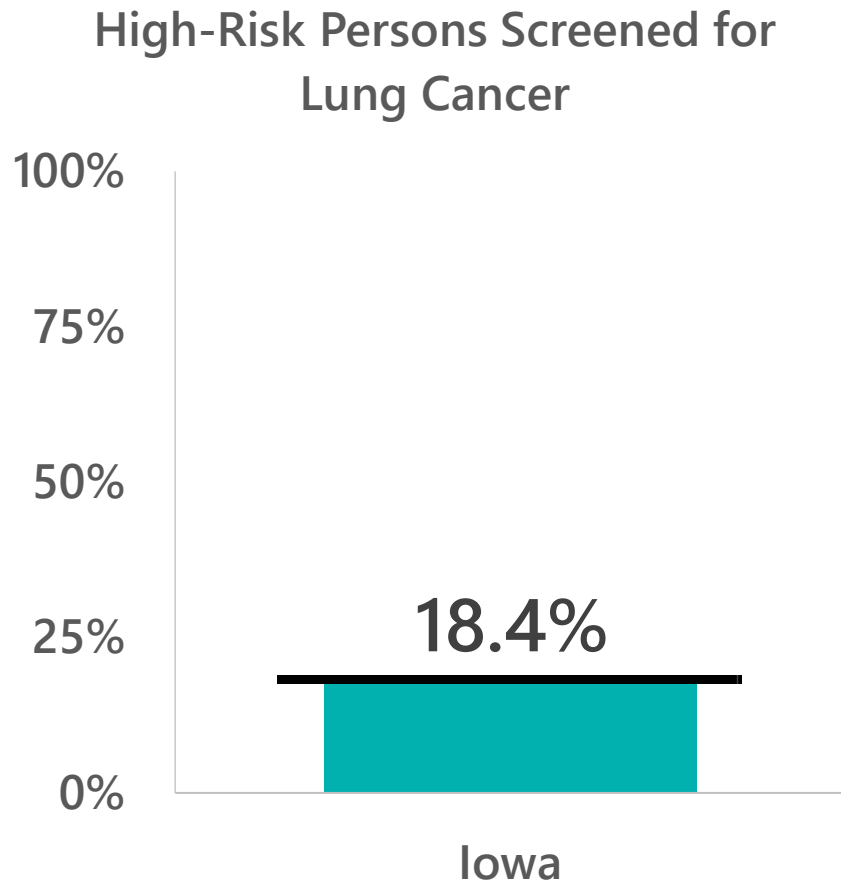
**20**

Deaths per year



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

# Lung Cancer Screening



## Screening Guidelines

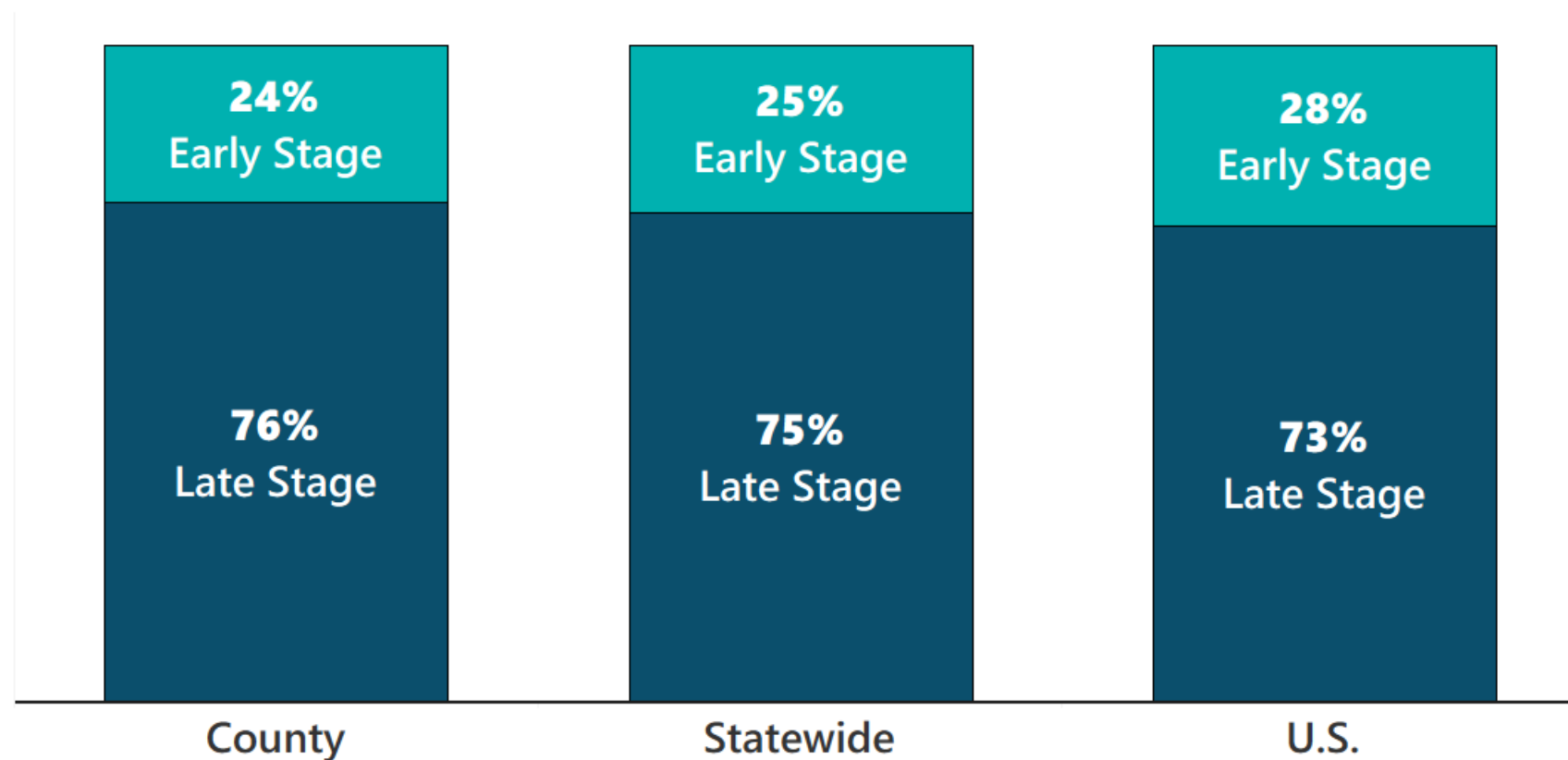
Low-dose CT scan

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)

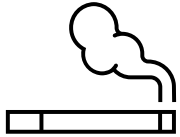
# 3 | Lung Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



**76%**  
Diagnosed at a  
Late Stage

# 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](https://hhs.iowa.gov/radiological-health/radon)

Iowa Cancer Consortium

[canceriowa.org/radon/](https://canceriowa.org/radon/)

# 4 | Colorectal

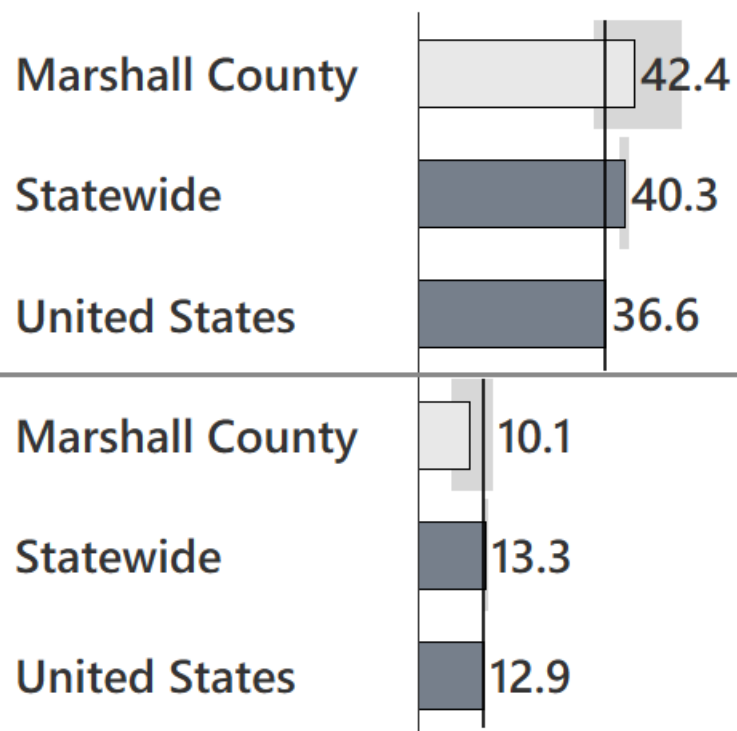
Each year in Marshall County, there are about...

**22**

New Cases per year

**<6**

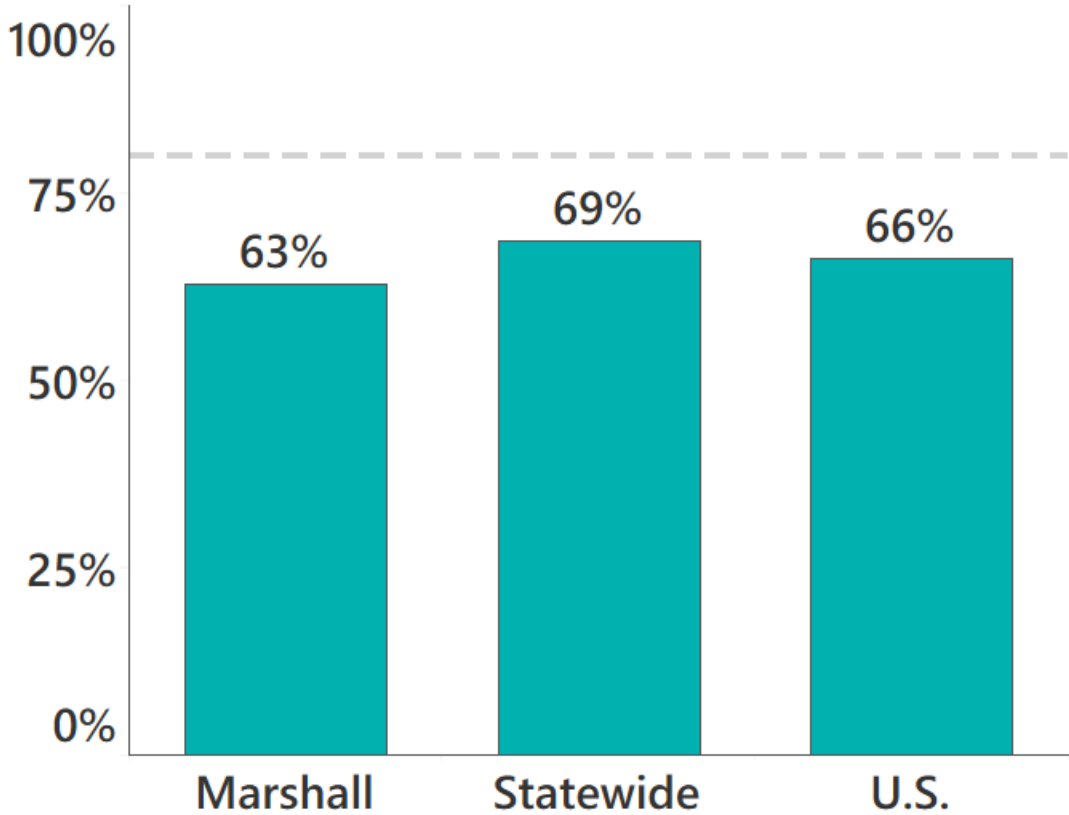
Deaths per year



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.

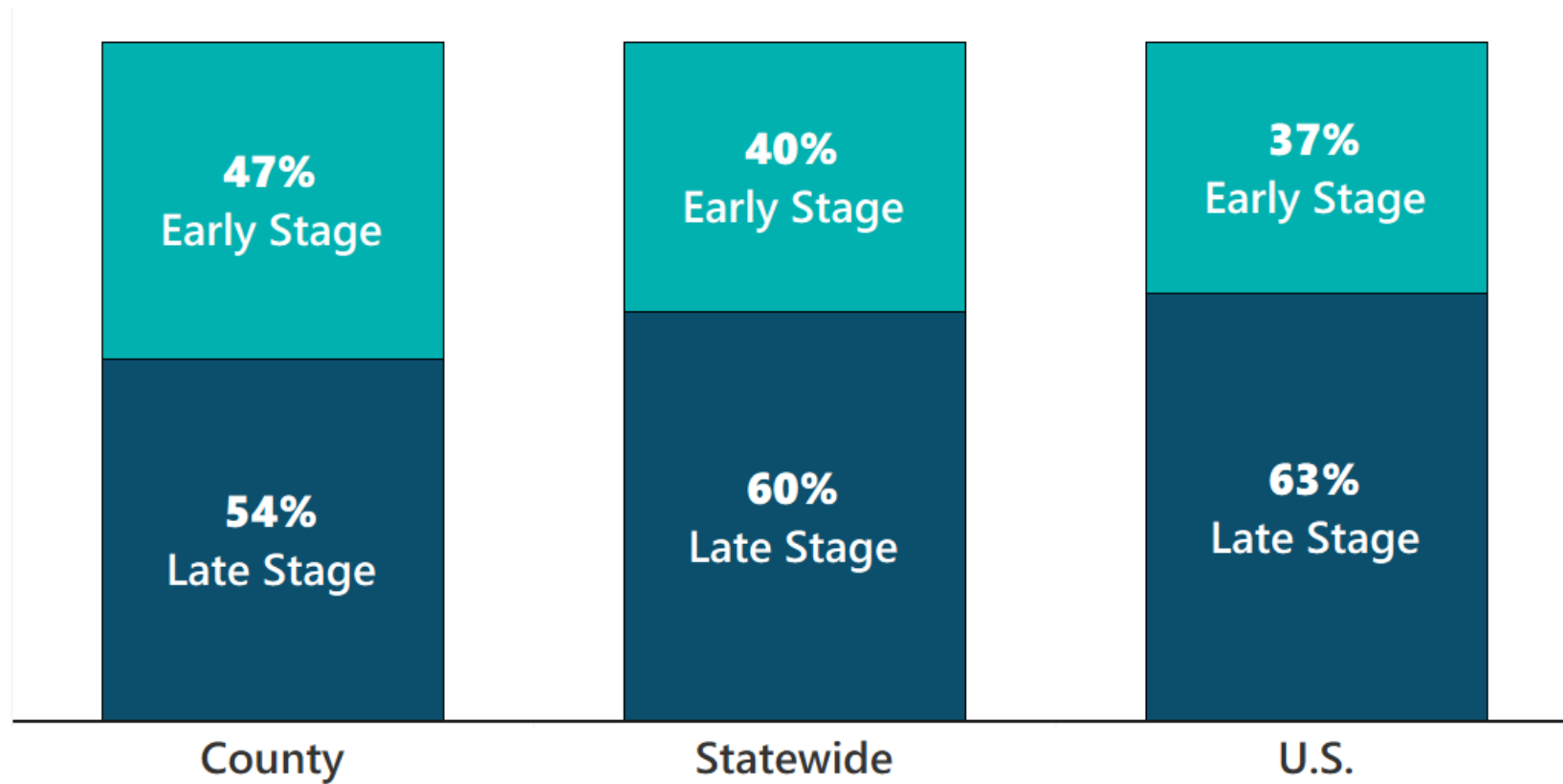
Talk to your doctor about which is best for you.

*(U.S. Prevention Services Task Force)*

*Data from 2022 survey  
Iowa Cancer Plan Goal: 80% by 2027*

# 4 | Colorectal Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



**54%**  
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



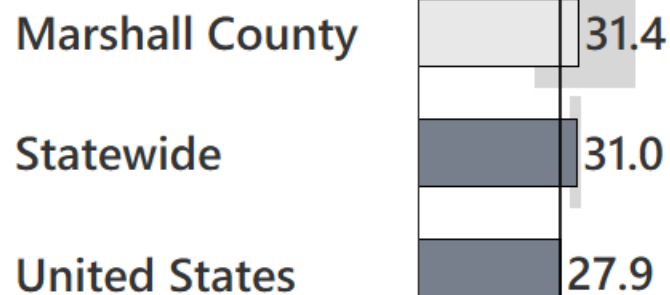
<https://hhs.iowa.gov/public-health/cancer/colorectal-cancer-screening-program>

# 5 | Endometrial (Uterine)

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

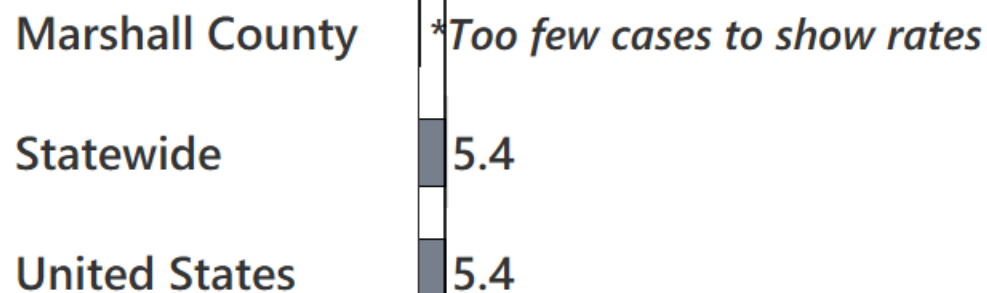
9

New Cases per year



<6

Deaths per year



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

# **Endometrial (Uterine Cancer)**

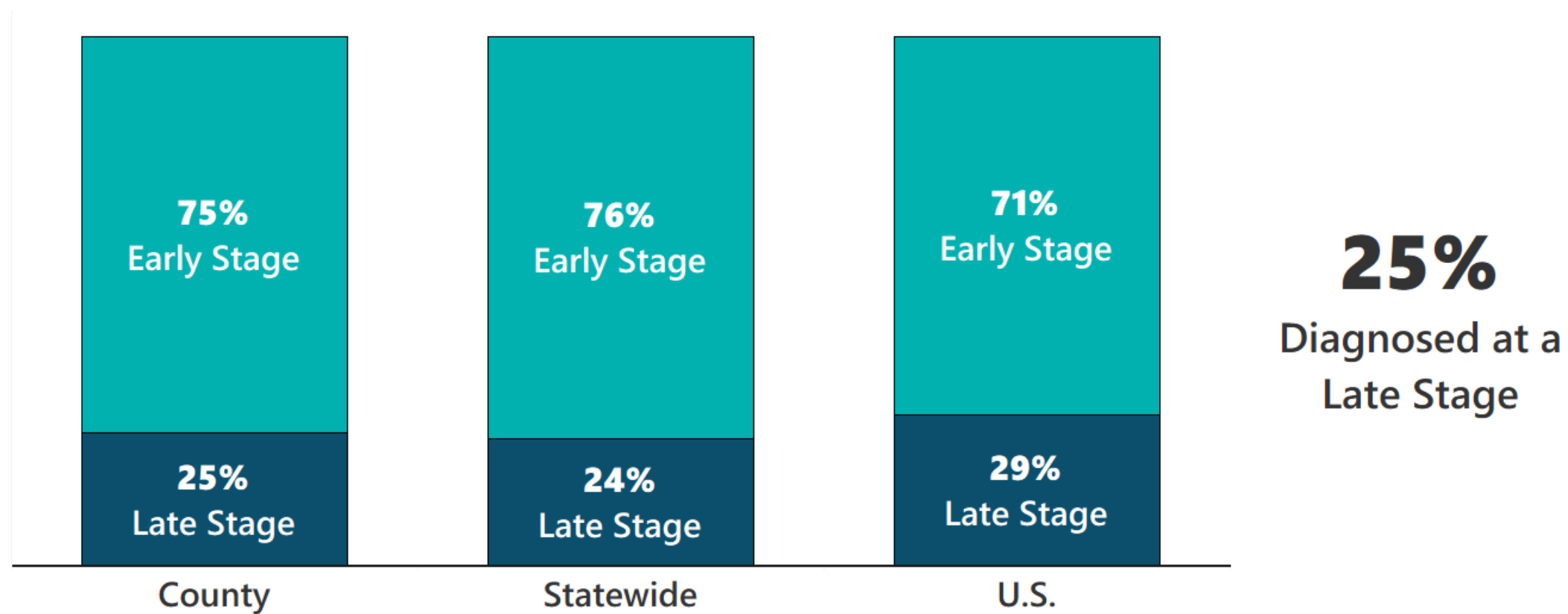
## **Talk to your doctor if you experience...**

---

- Vaginal bleeding or discharge not related to menstruation (periods)
- Vaginal bleeding after menopause
- Difficult or painful urination
- Pain during sexual intercourse
- Pain in the pelvic area

# 5 | Endometrial (Uterine) Cancer Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates



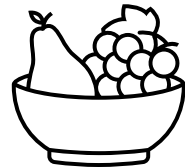
Data from 2013-2022

# 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



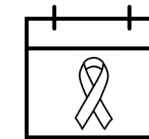
Vaccinate against Hepatitis B and HPV



Reduce indoor and outdoor air pollution (including radon)



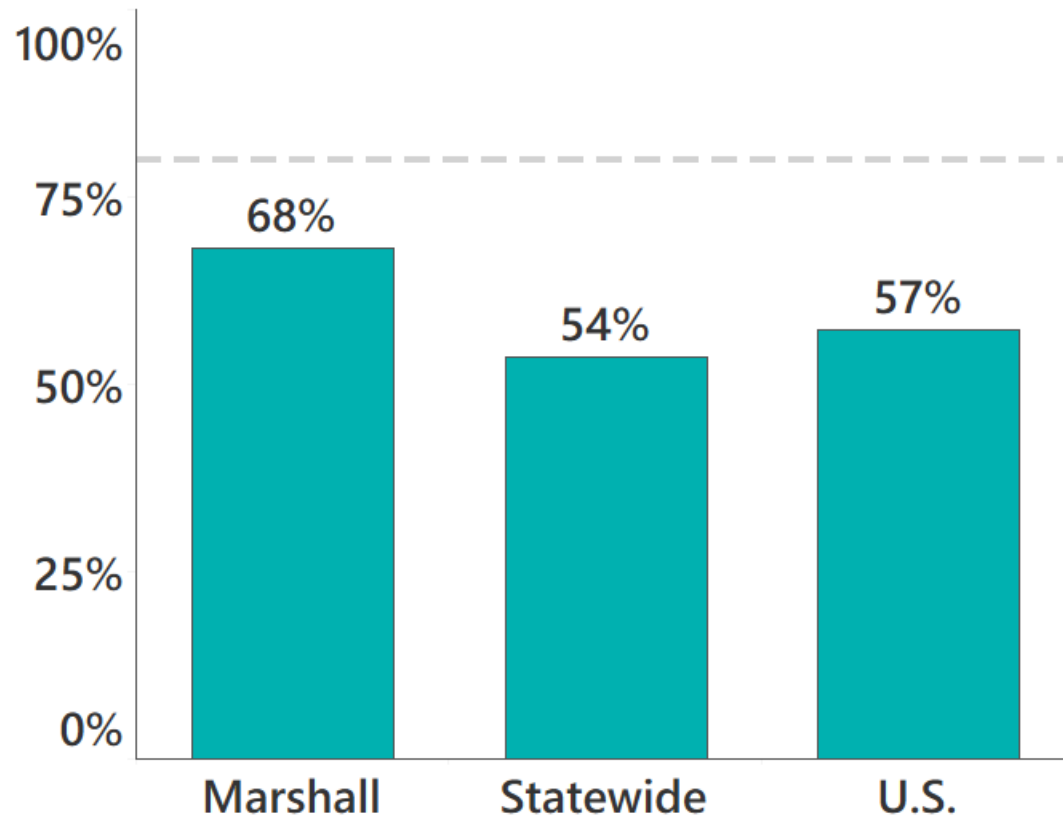
Decrease excess body weight



Get the appropriate cancer screenings for you!

# A vaccine that prevents cancer: HPV

Adolescents ages 13-15 who have completed their HPV vaccine series (2023)



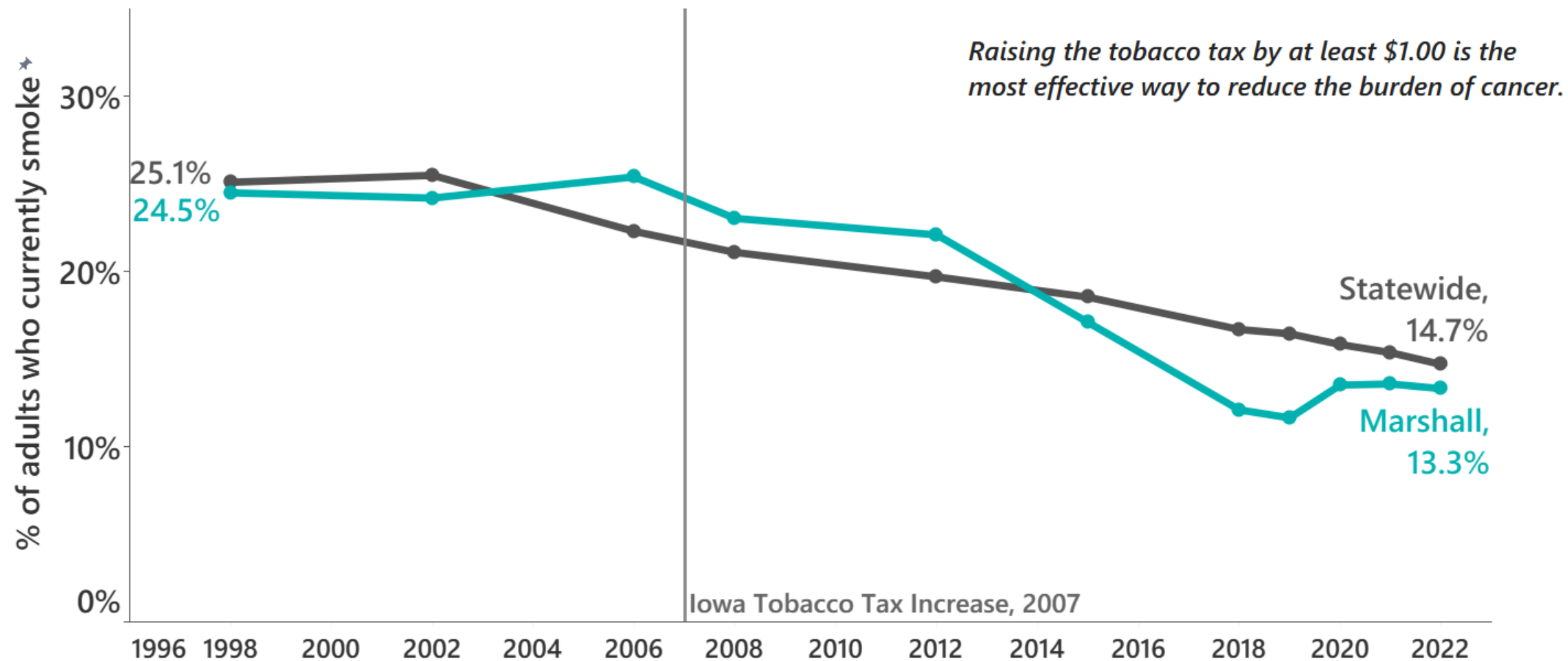
- HPV infection can cause cancers of the cervix, mouth and throat, anus, rectum, penis, vulva, and vagina.
- Iowa has the highest rate of oropharyngeal cancer in the U.S.
- Vaccine provides safe, effective, and lasting protection against HPV, thus reducing cancer risk
- Recommended at age 11 or 12 years,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

*Iowa Cancer Plan Goal: 80% by 2027*

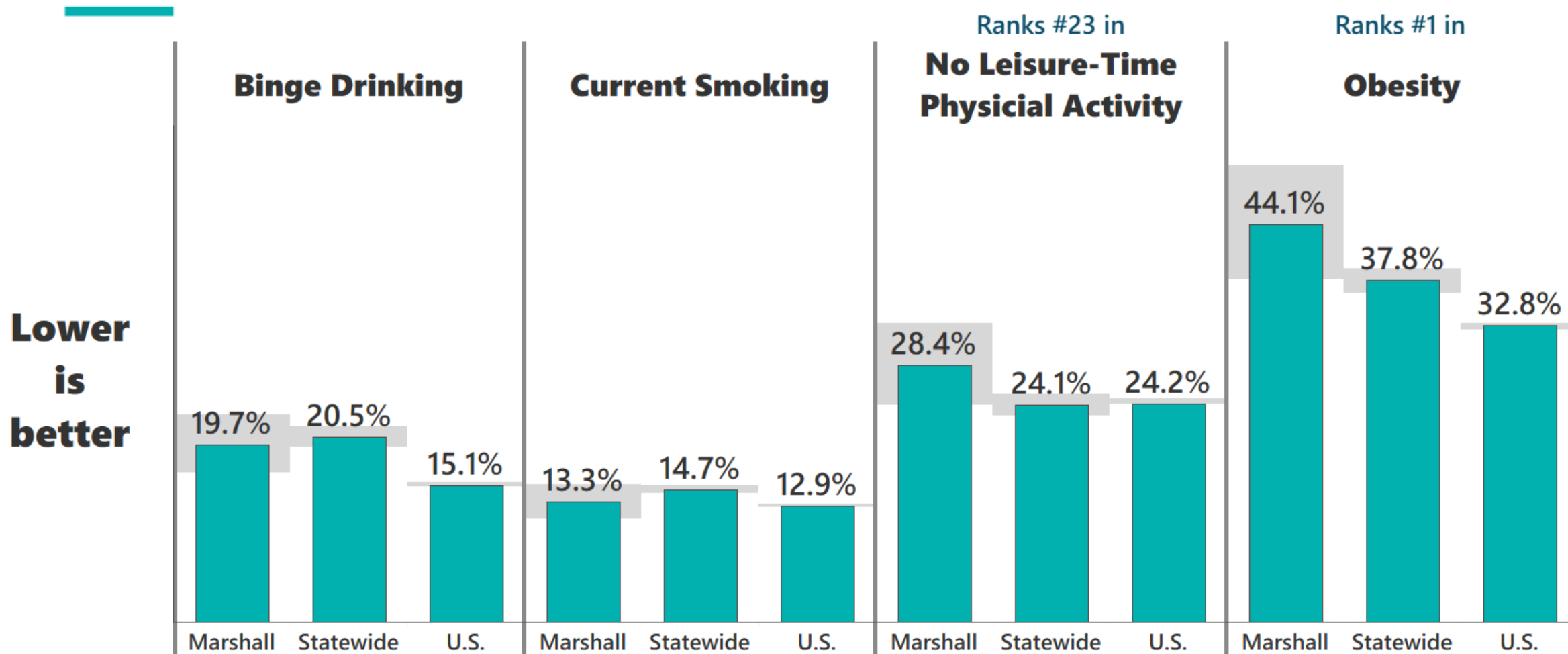


# After the last increase to the tobacco tax was passed in 2007, smoking rates **decreased\*** in Marshall County

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



# Other Cancer Risk Factors



# 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 (CCCP)

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

- ▶ The CCCP partners with many organizations, including the Iowa Cancer Consortium, Iowa's cancer coalition.
- ▶ CCCP is involved in the revision and implementation of the Iowa Cancer Plan.
- ▶ Currently CCCP 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](http://www.canceriowa.org)

Funded in part through a contract with the Iowa CCCP

# 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.



**Iowa Cancer Plan**

2 0 2 3 - 2 0 2 7



[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](http://www.fightcancer.org)



## Contact your legislator

Find your legislator at

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

# Marshall County Resources

Stay Connected: Cancer Prevention  
& Future Action in Marshall  
County



<https://forms.office.com/g/w6zwZsFpfc>

## Or Contact

Sydney Grewell  
Marshall County Public Health Director  
Office number: 641-844-2799  
Email: [publichealth@marshallcountya.gov](mailto:publichealth@marshallcountya.gov)  
Connect with us on Facebook at Marshall  
County Iowa Public Health Department

# **Resource Guide Cancer in Iowa: 99 Counties Project**

[www.iowacancerregistry.org/99](http://www.iowacancerregistry.org/99)



# Environment-related Resources



## Cancer Clusters

If you are concerned about cancer excess in your area, please email the Iowa Cancer Registry at [ICR-CancerConcerns@uiowa.edu](mailto:ICR-CancerConcerns@uiowa.edu)

## Iowa Private Well Grants Program, Iowa HHS

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



## Agricultural Health Study

The aim of this study is to understand how agricultural, lifestyle, and genetic factors affect the health of farming populations. Linked with Iowa Cancer Registry data to study risk of developing cancer among pesticide applicators. [aghealth.nih.gov](http://aghealth.nih.gov)



## Center for Health Effects of Environmental Contamination (CHEEC)

CHEEC supports and conducts research to identify, measure and study adverse health outcomes related to exposure to environmental toxins. [cheec.uiowa.edu](http://cheec.uiowa.edu)



## Environmental Exposures & Health Risks Fact Sheets

Environmental Health Sciences Research Center created fact sheets with information on cancer and non-cancer health risks for selected environmental exposures. <https://ehsrc.public-health.uiowa.edu/communityengagement/resources-information/>



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

Raises awareness about the link between harmful chemicals and their impacts to both people and climate. [ceee.uni.edu](http://ceee.uni.edu)



# Other initiatives in Iowa

---

## Cancer and Environmental Risk Factors in Iowa



The Harkin Institute

The Harkin Institute and the Iowa Environmental Council have embarked on an initiative that explores the relationship between environmental risk factors and cancer rates in Iowa.

The initiative included a review of existing research on environmental risk factors and a statewide campaign to listen to, understand, and amplify Iowans' own lived experiences with cancer.



[www.iaenvironment.org/our-work/cancer-and-environmental-risk-factors-in-iowa/](http://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/>

[Interim Findings Report](#)

# 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.**

# 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.



# 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.

