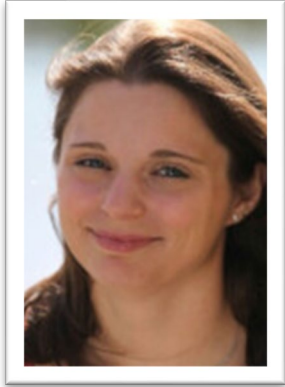


# Cancer in Dickinson County

Sarah Nash, PhD, MPH, CPH & Amanda Kahl, MPH

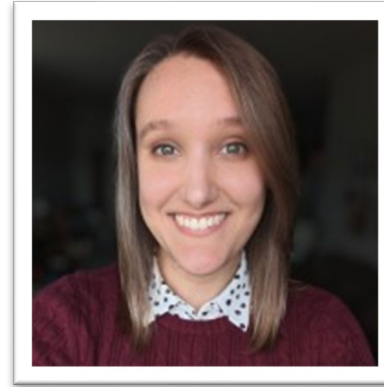
January 23, 2025

# Who we are



## **Sarah Nash, PhD, MPH, CPH**

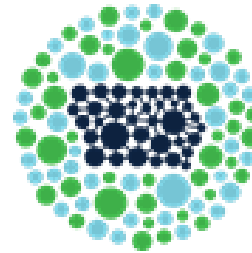
- Assistant Professor, University of Iowa Department of Epidemiology
- Director of Research, Analytics, and Dissemination, Iowa Cancer Registry
- Community Outreach and Engagement Co-Lead, Holden Comprehensive Cancer Center
- Research: Cancer health disparities for rural and underserved minority populations



## **Amanda Kahl, MPH**

- Epidemiologist & Data analyst, Iowa Cancer Registry
- Studies:
  - Associations between viral infections & cancer
  - Rural-urban differences in treatment and quality of cancer care
  - Cancer Registry data quality

# 99 Counties Project Team



Iowa Cancer  
Consortium



**IOWA**  
HEALTH CARE

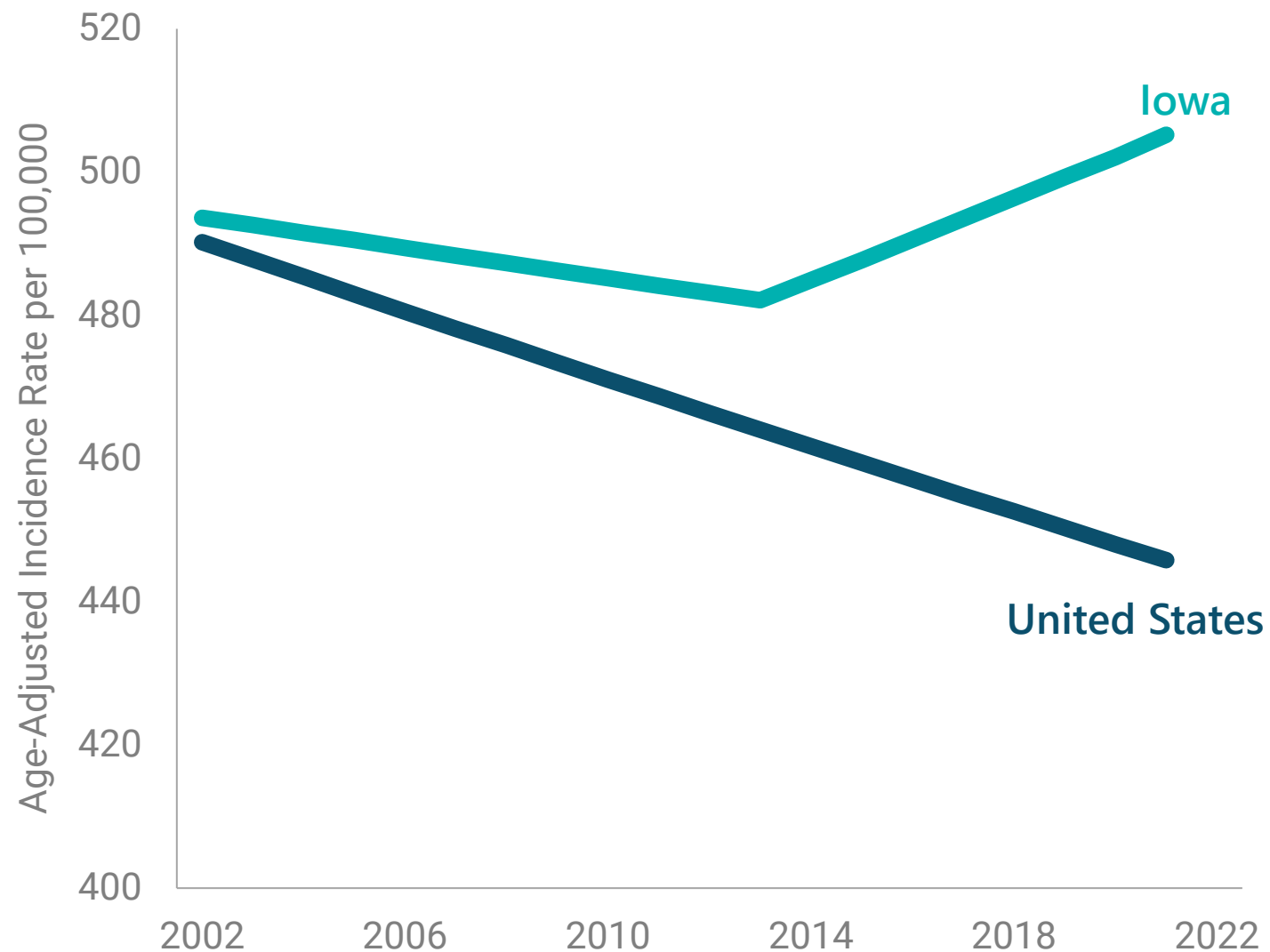
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Holden Comprehensive  
Cancer Center

**IOWA**™ | Health and  
Human Services

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

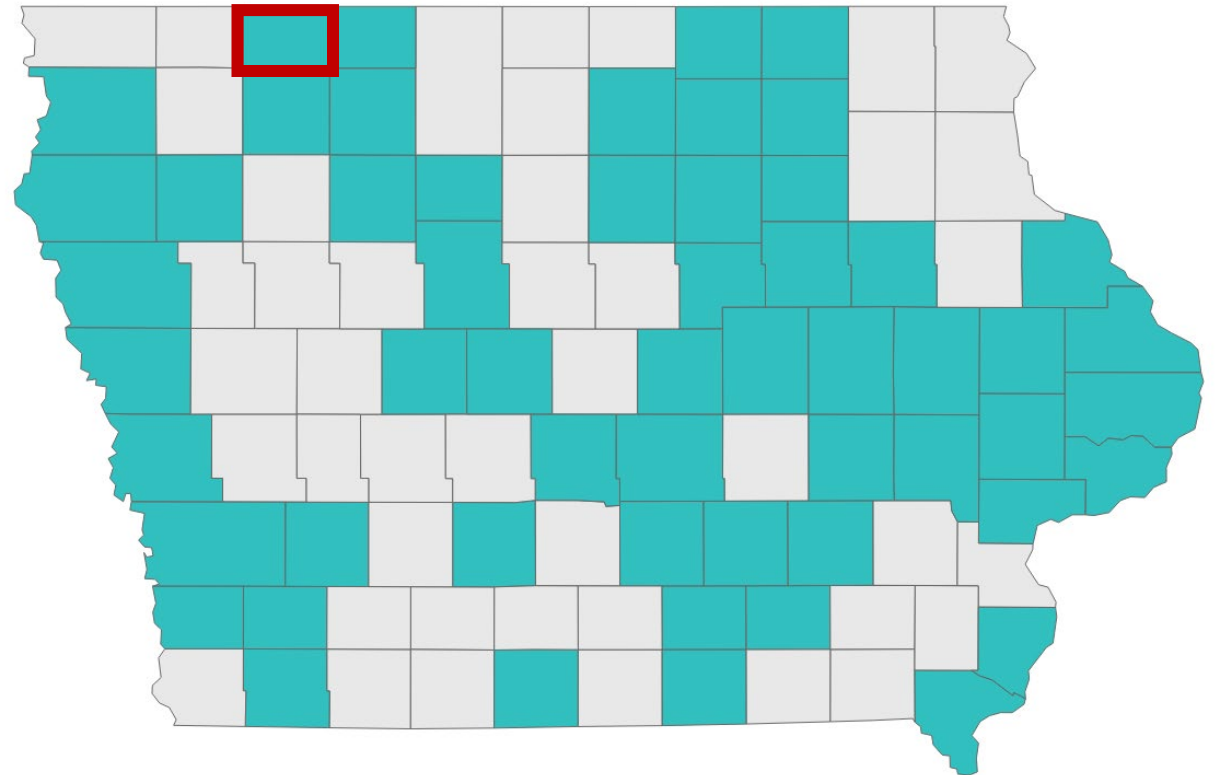
**Iowa's rate is rising** while the rest of the country improves



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

**56** Counties with rates  
OVER the national average

**0** Counties below the  
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



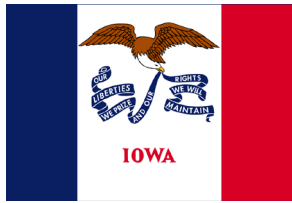
Recommend actions

**“Statistics are people  
with the tears wiped away”**

**Dr. Irving Selikoff**

# 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

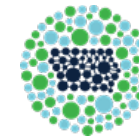
- Track environmental health-related diseases
- Assist local boards of health

### 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



Iowa's only NCI Designated Cancer Center

Health Care, research, education



STATE HEALTH REGISTRY OF IOWA

Data, research, education

## UI Research Centers



Cancer Prevention and Control Research Network



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



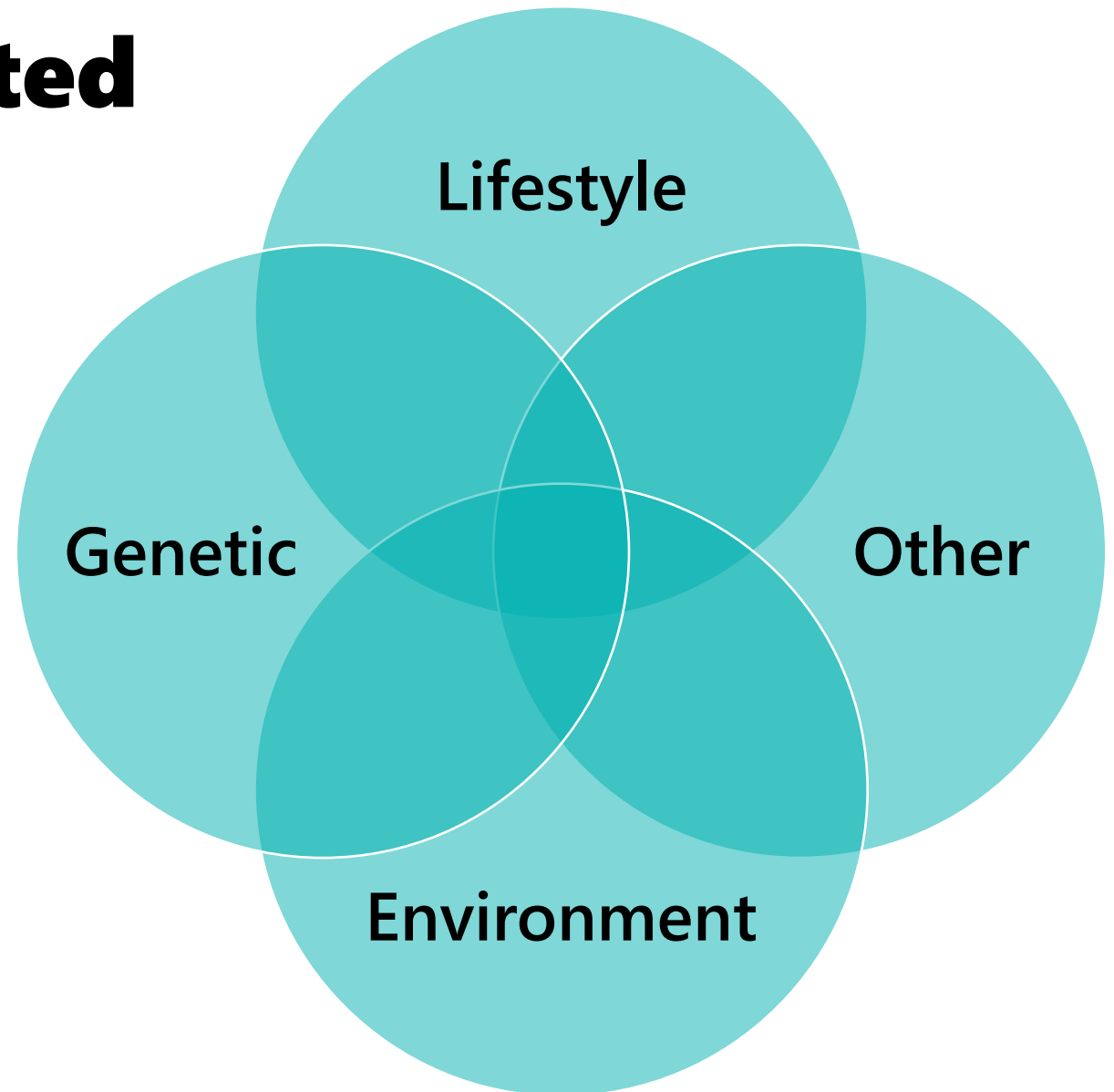
**Support studies** for cancer prevention, research & education



# **Background on Cancer**

# Cancer is Complicated

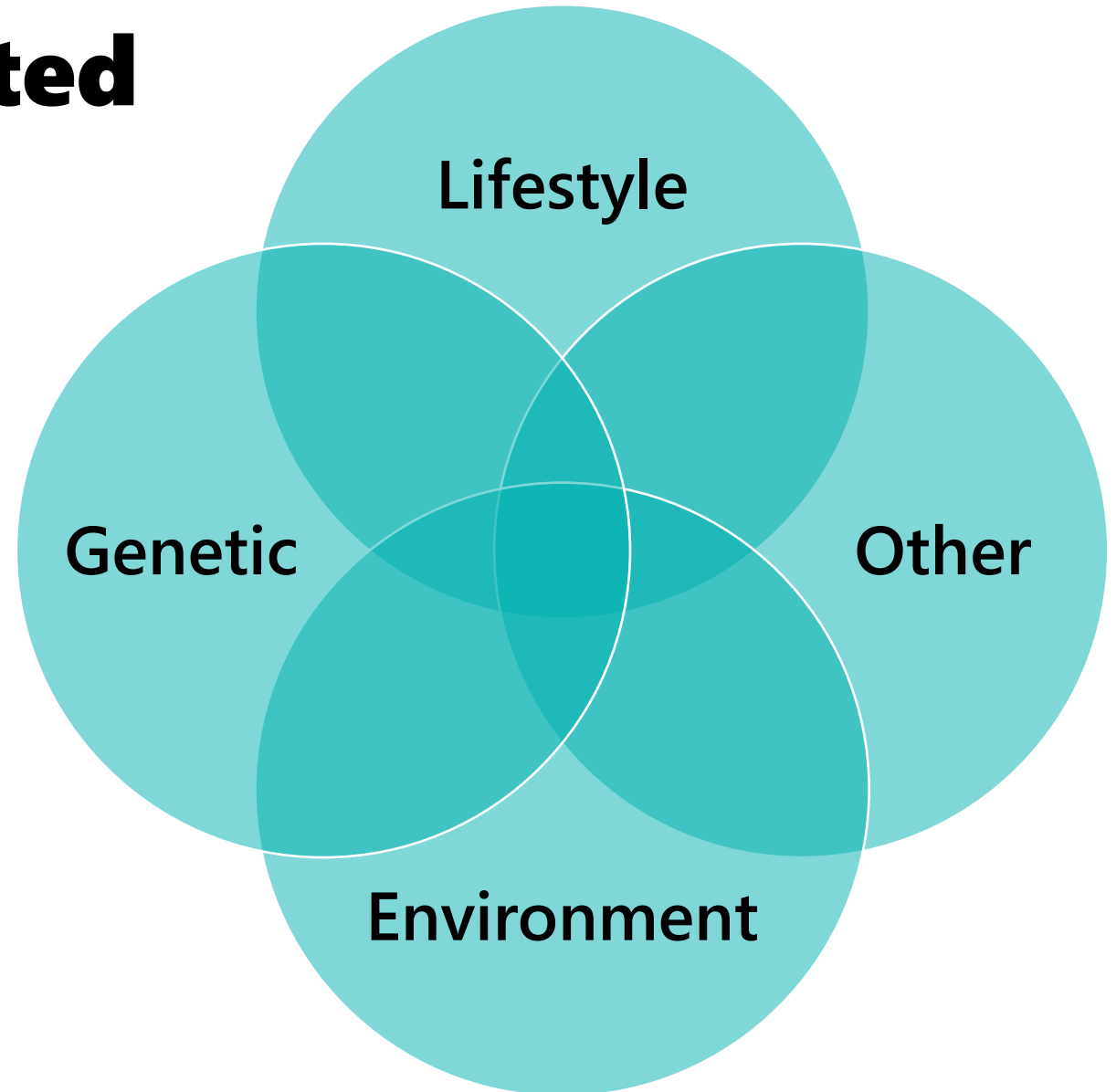
There is no one cause of cancer; it is a combination of different **genetic, lifestyle, environmental,** and **structural** risk factors that change the function of cells

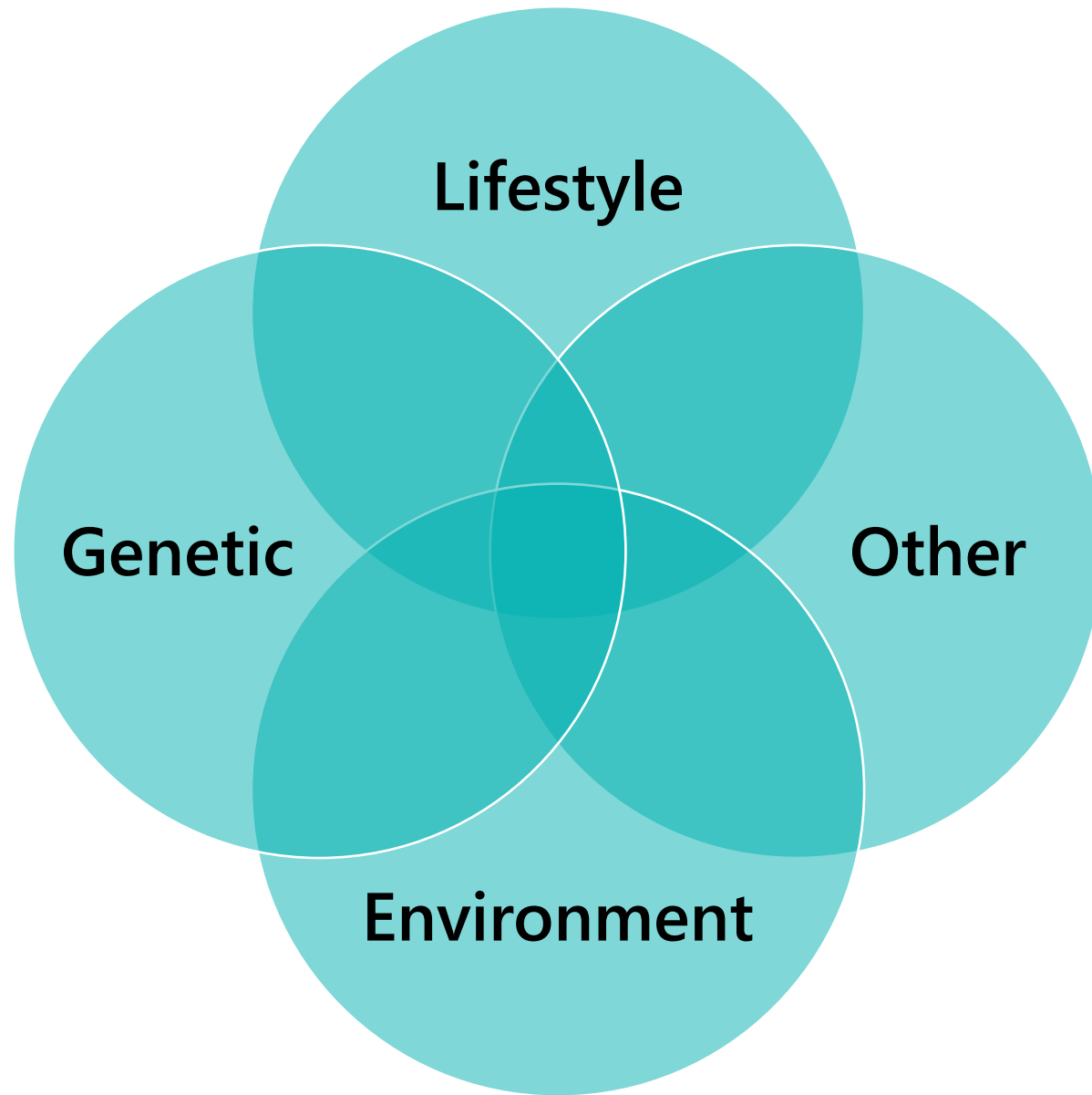


# Cancer is Complicated

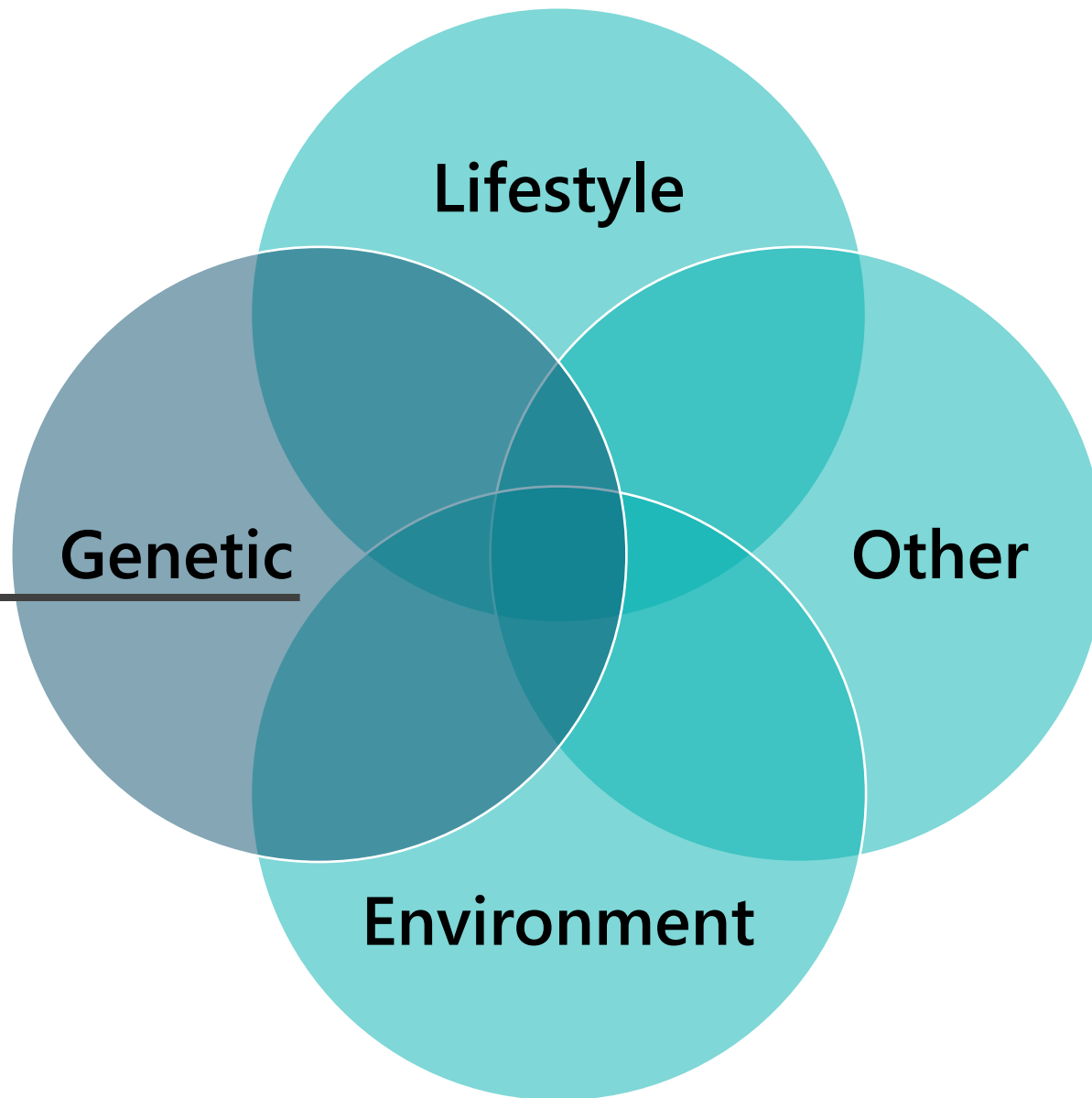
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Risk factors are things that increase your chances of getting cancer

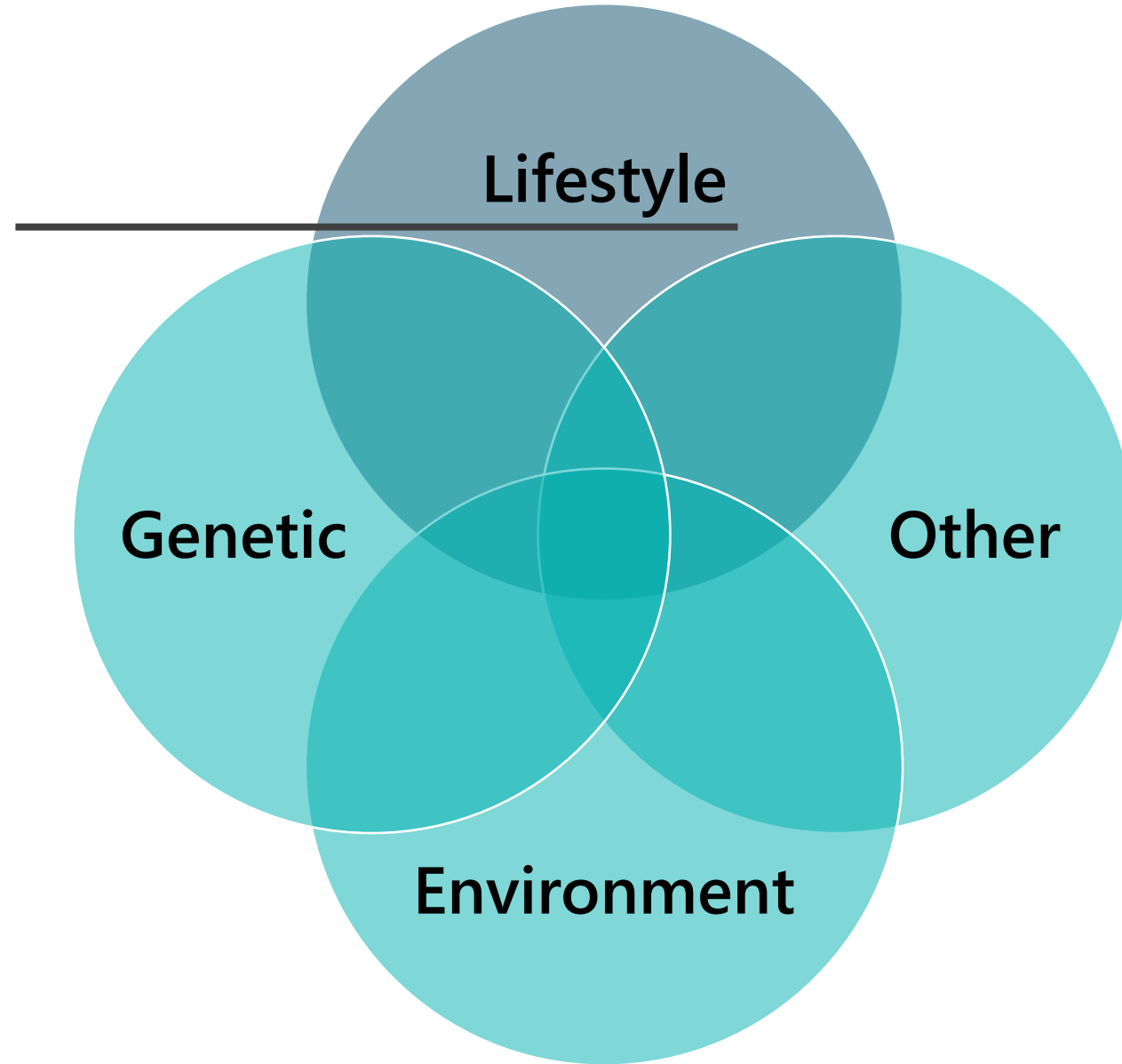


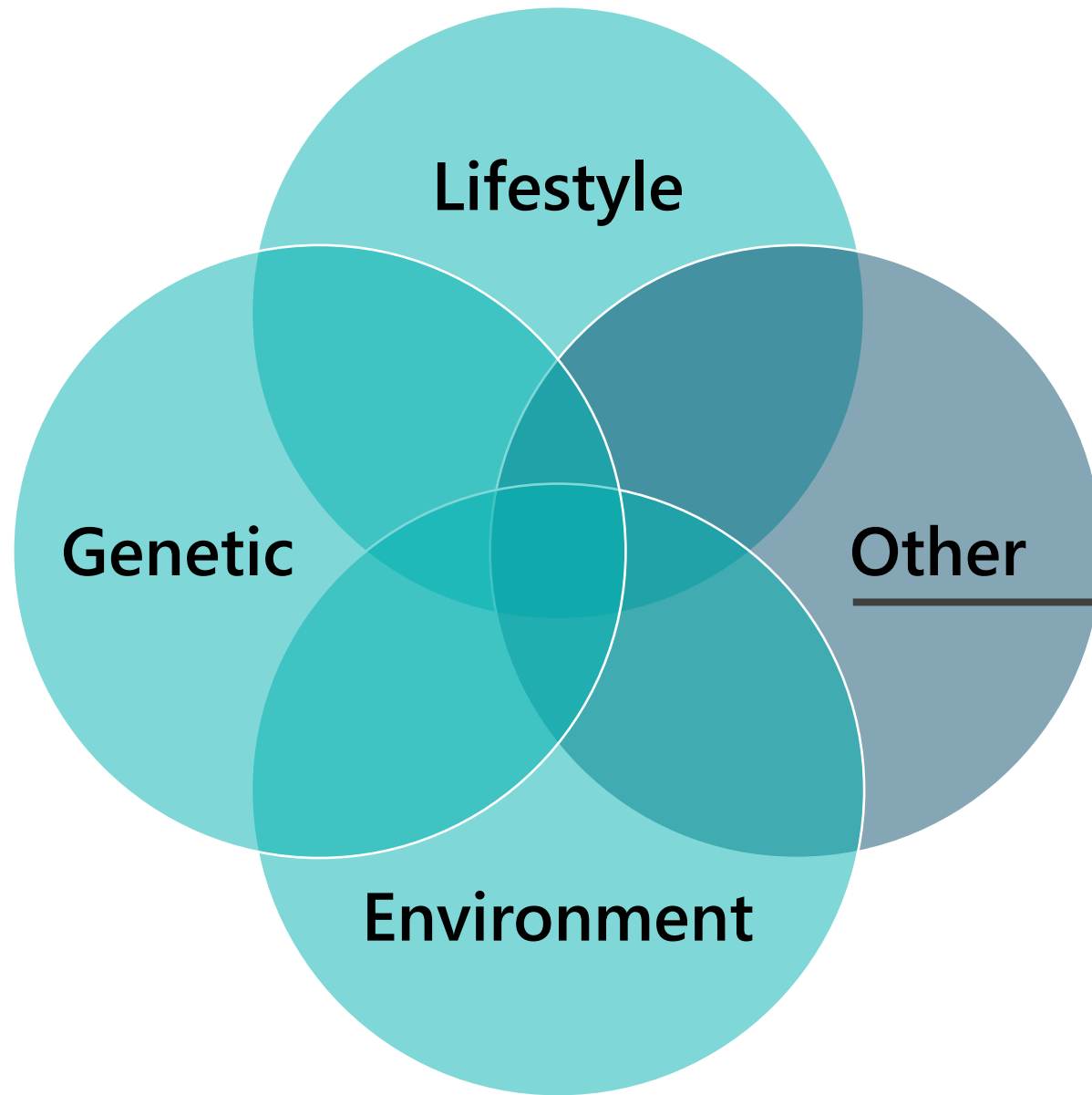


- Family history of cancer
- Random mutations



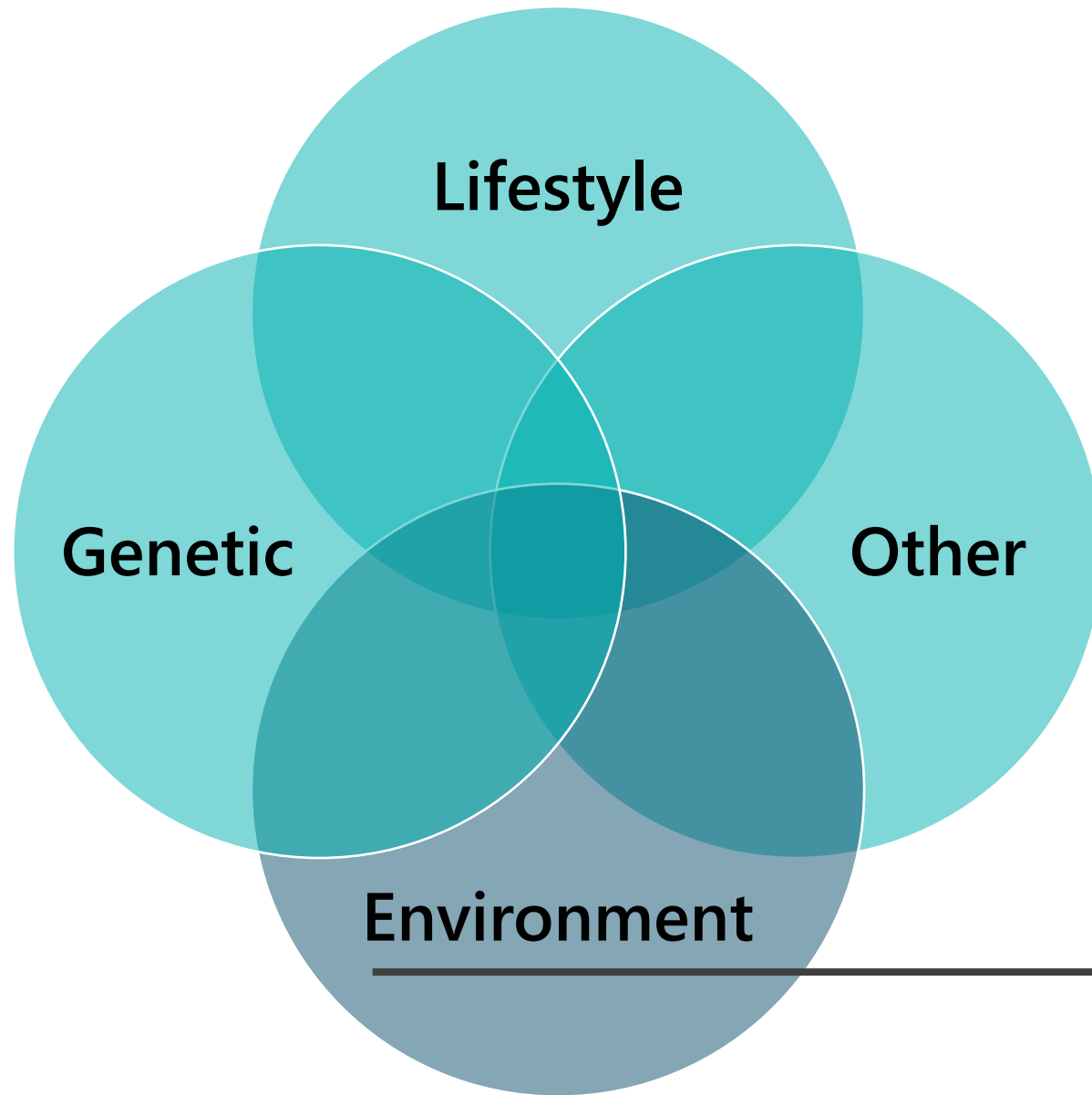
- Tobacco
- Alcohol
- Unhealthy diet
- Not being physically active
- Sunburns





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





- Exposure to chemicals
- Radiation

# 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 does 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
- To reduce your risk, **avoid risk factors** whenever possible
- 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 a disease occurring during a specified time period in a population
- Mortality
  - Number of **deaths** from a disease that occur during a specified time period in a population

# Rates & Counts

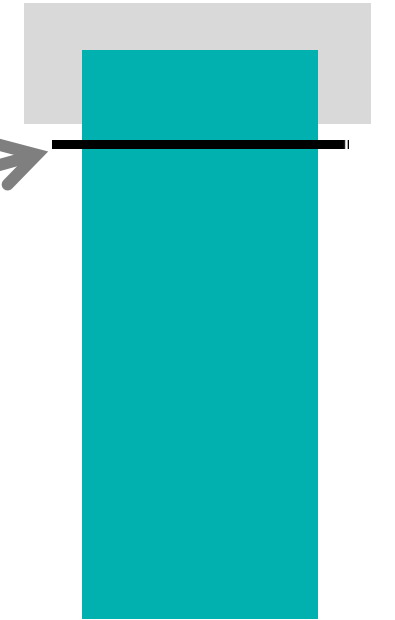
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- Counts
  - The **number** of new cases diagnosed or deaths from cancer
- Rates
  - Adjusts the counts to give a **# per 100,000 people**
- Age-Adjusted Rates
  - Addresses the question: *If the size and age of the populations were the same, would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

# How to read the graphs

Unless otherwise stated, bars and pie graphs 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 Dickinson County**





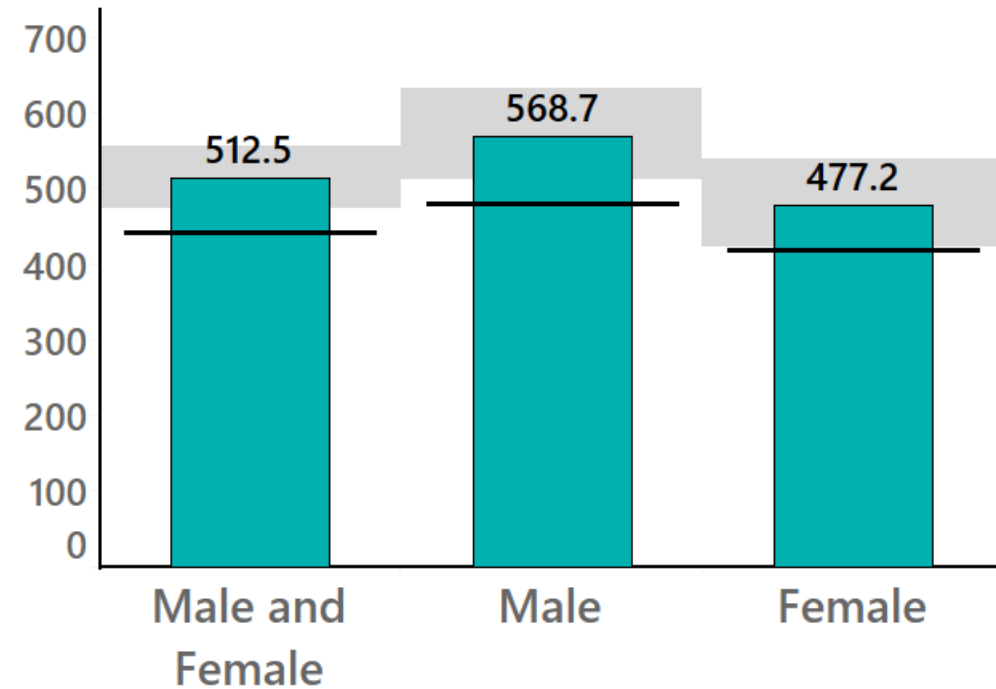
# Cancer incidence rates in Dickinson County are **higher than the U.S. average**

Each year, there are about

**154**

new cancers diagnosed in  
Dickinson County

Cancer Incidence Rates are typically higher in men than women



Age-Adjusted Rate per 100,000 (2017-2021)

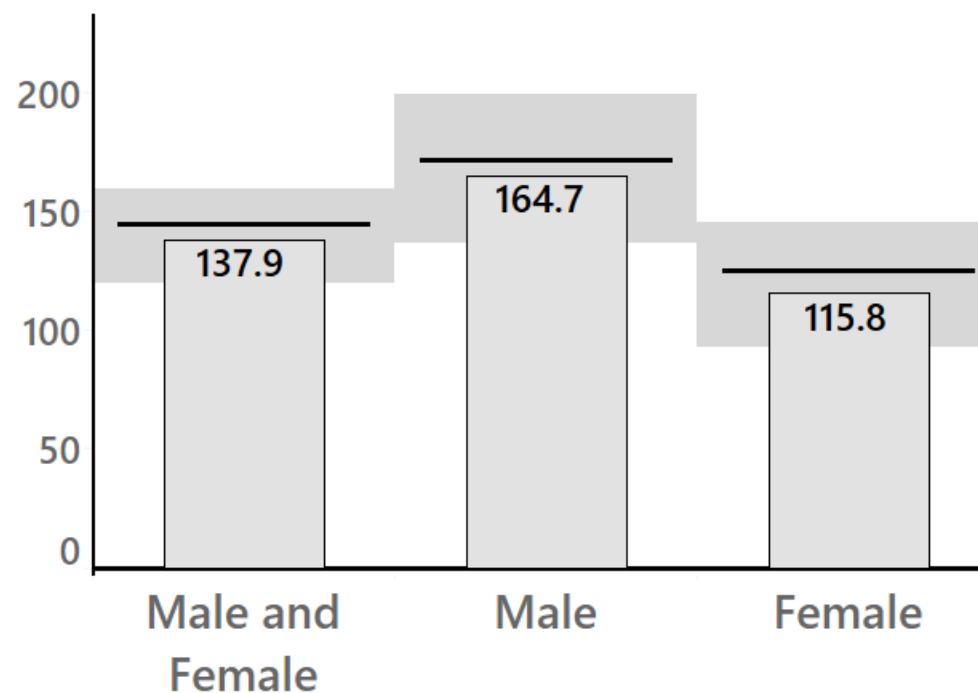
# Cancer mortality rates in Dickinson County are **not statistically different from the U.S. average**

Each year, there are about

**47**

cancers deaths in  
Dickinson County

Cancer Mortality Rates are typically higher in men than women



Age-Adjusted Rate per 100,000 (2018-2022)

# Top cancers in Dickinson County

Based on rate per 100k, 2017-2021

Rank is compared to Iowa's other 99 counties  
#1 is Highest  
#99 is Lowest

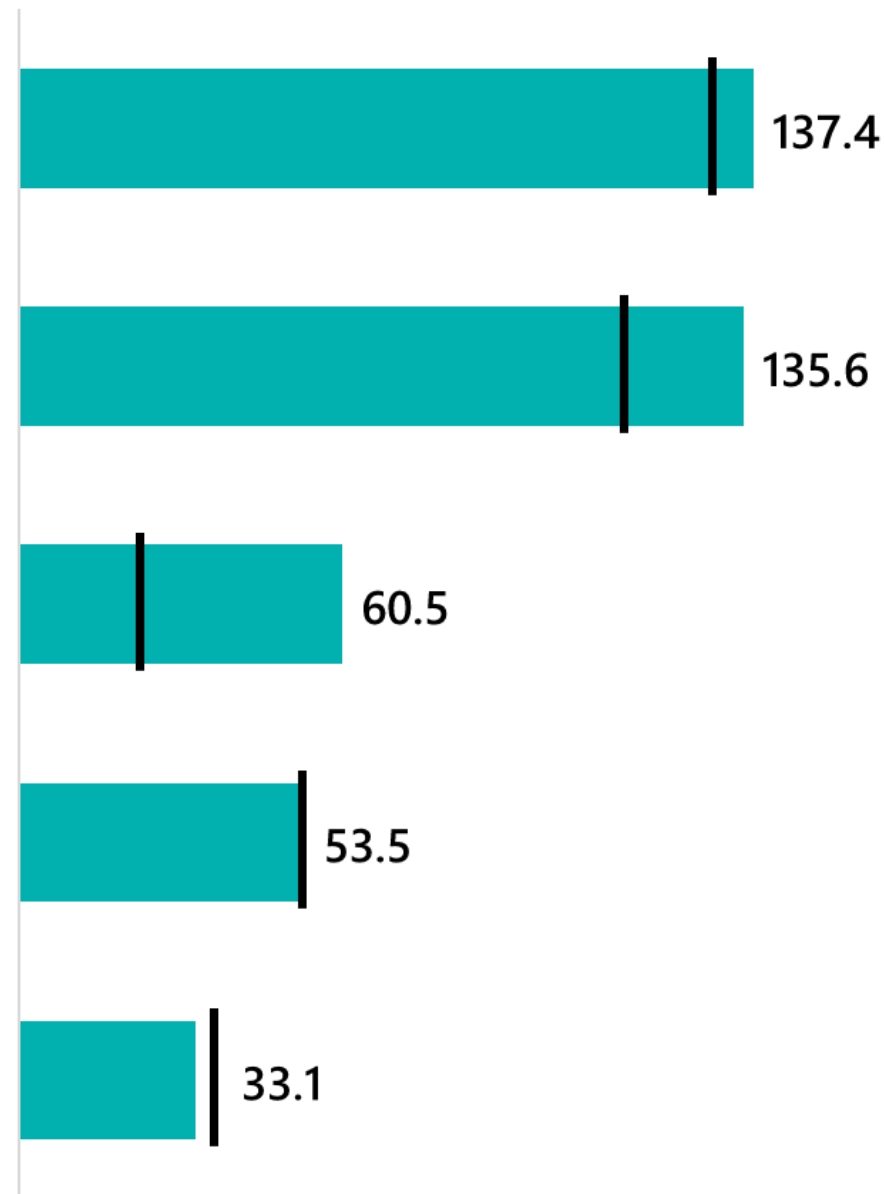
Female Breast  
Ranks 38<sup>th</sup>

Prostate  
Ranks 35<sup>th</sup>

Melanoma  
Ranks 1<sup>st</sup>

Lung  
Ranks 76<sup>th</sup>

Colorectal  
Ranks 90<sup>th</sup>



Age-Adjusted Rate per 100,000 (2017-2021)

# #1 Female Breast Cancer

Each year in Dickinson County there are about...

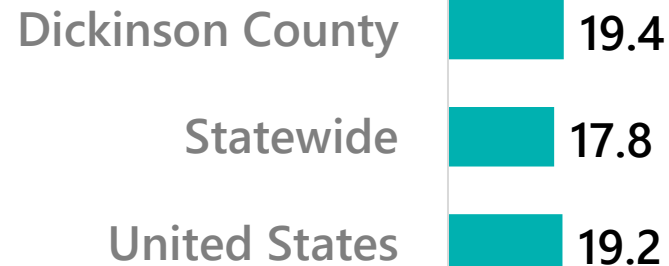
**19**

**New Cases** per year



**3**

**Deaths** per year



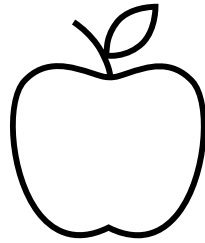
Age-Adjusted Rate per 100,000  
Incidence (2017-2021); Mortality (2018-2022)

# What can you do to prevent breast cancer?

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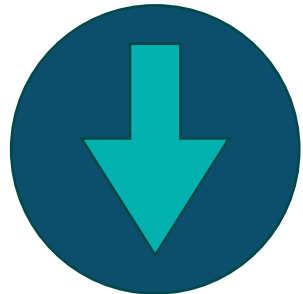


Physical  
Activity

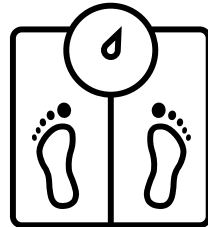


Healthy  
Foods

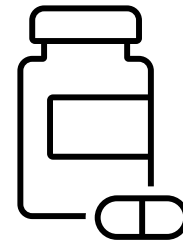
**+ Get  
Screened!**



Alcohol

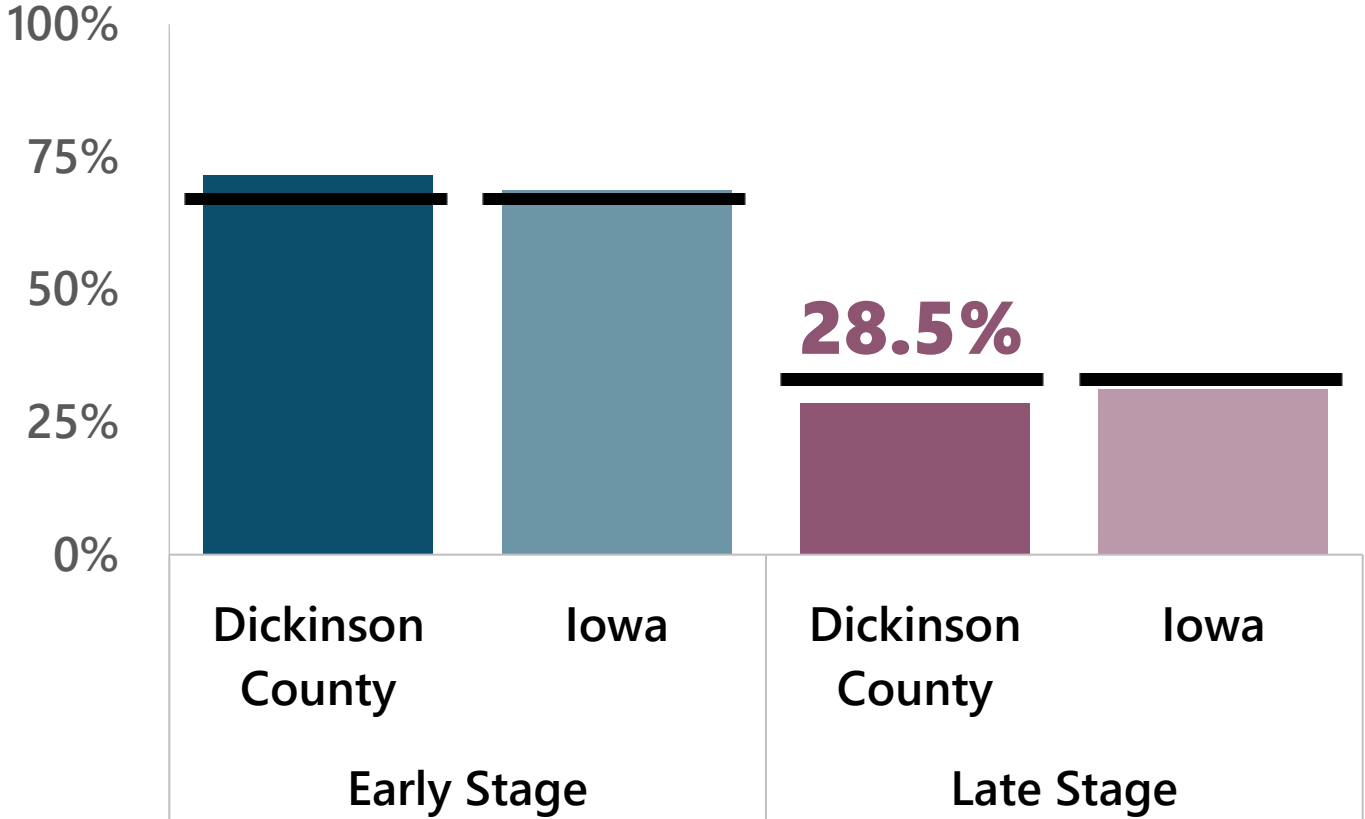


Excess Body  
Weight



Taking  
Hormones

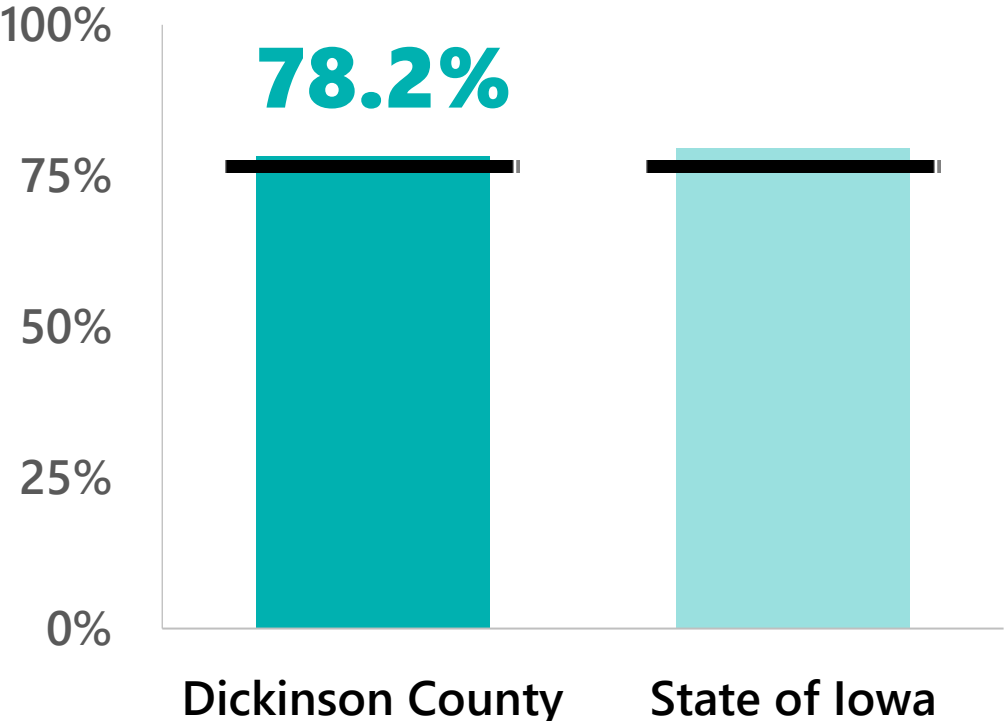
# Breast Cancer: Stage at diagnosis



Early stage =  
Easier to treat,  
Higher survival rates

# Breast Cancer Screening

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



## Screening Guidelines

Persons with breasts, ages 40-74

Screen with a mammogram every 2 years

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

# 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>





# #2 Prostate Cancer

Each year in Dickinson County there are about...

**23**

**New Cases** per year



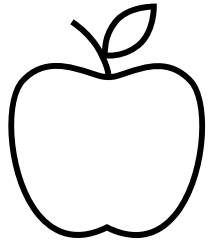
**<3**

**Deaths** per year

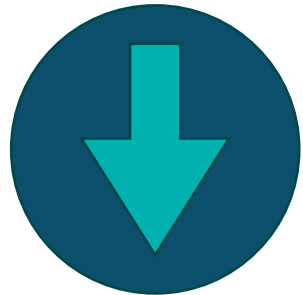


Age-Adjusted Rate per 100,000  
Incidence (2017-2021); Mortality (2018-2022)

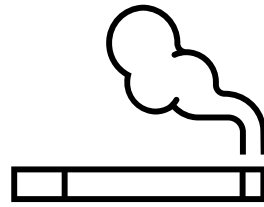
# What can you do to prevent prostate cancer?



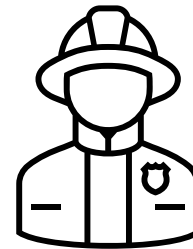
Healthy  
Foods



Alcohol



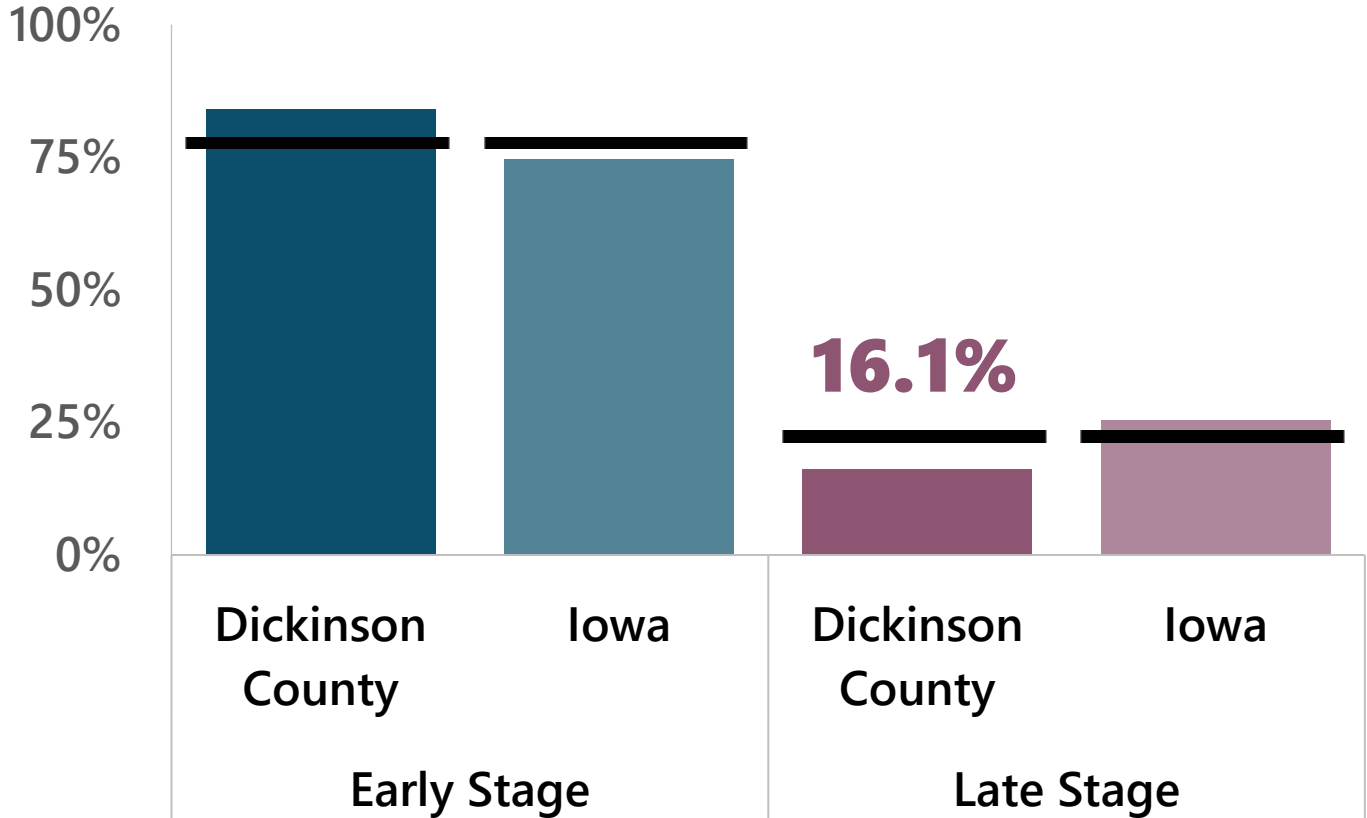
Smoking



Chemical  
Exposures

**+ Get  
Screened!**

# Prostate Cancer: Stage at diagnosis



Early stage =  
Easier to treat,  
Higher survival rates

# Prostate Cancer Screening

---

## Screening Guidelines

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

If you have a prostate and are 55-69 years old, discuss with your doctor if a PSA test is right for you

# #3 Melanoma

Each year in Dickinson County there are about...

**15**

**New Cases** per year

**<1**

**Deaths** per year

- **Highest rate in Iowa & rising**
- **9<sup>th</sup> highest rate of all counties in the US**



*\*Rates suppressed due to small numbers*

Age-Adjusted Rate per 100,000  
Incidence (2017-2021); Mortality (2018-2022)

# What can you do to prevent melanoma?



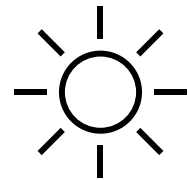
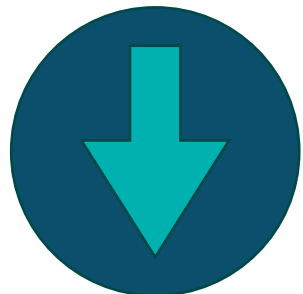
Wear broad spectrum sunscreen with at least SPF 30



Wear long sleeves and hats when outdoors



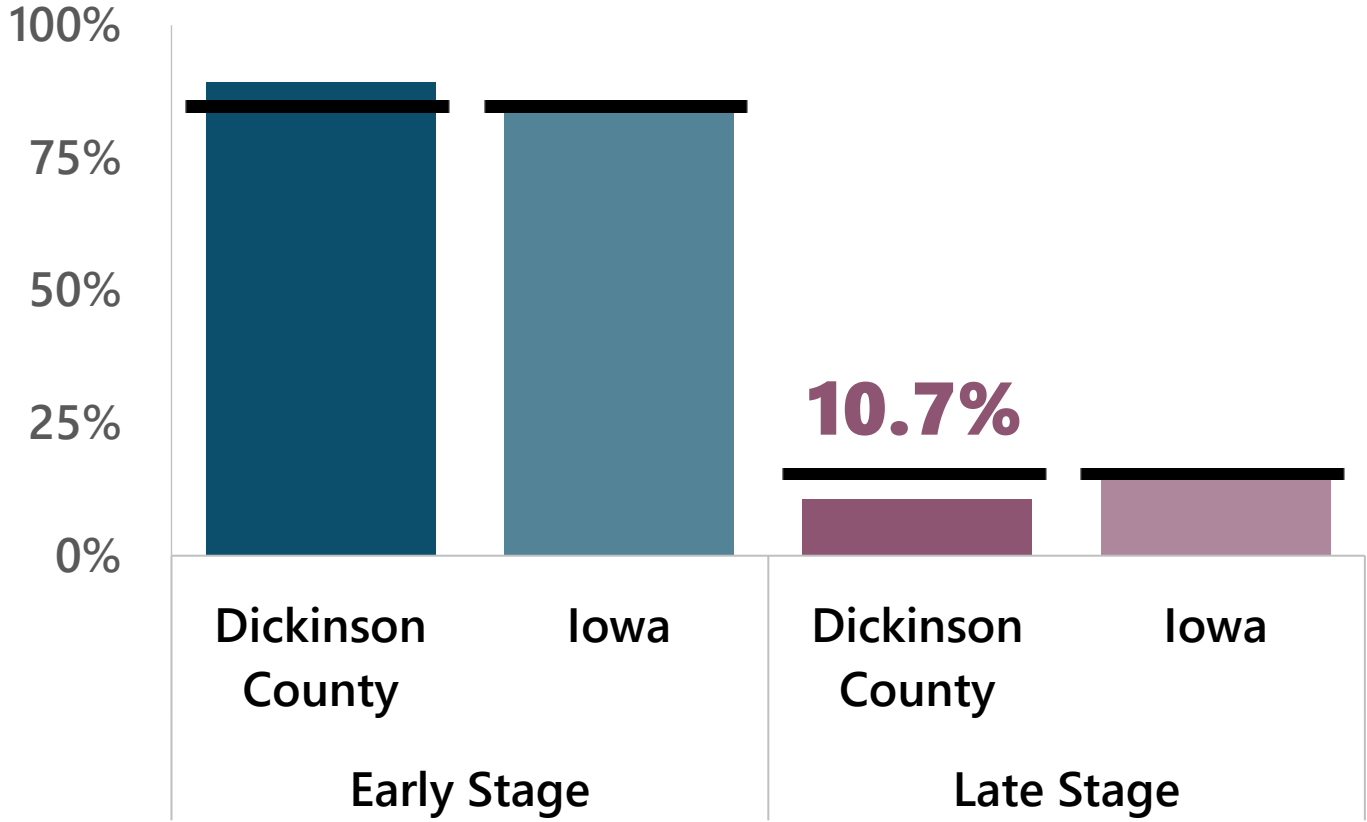
Sit in the shade when possible



Avoid being in the sun from 10am – 2pm

Do not use indoor tanning beds

# Melanoma: Stage at diagnosis



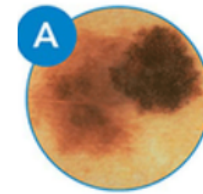
Early stage =  
Easier to treat,  
Higher survival rates

# Melanoma Self-Exams

Perform regular **self-examinations** using a mirror. Look for new spots or changes in existing spots.

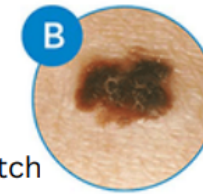
If you are concerned about a spot, talk to your doctor or a dermatologist

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



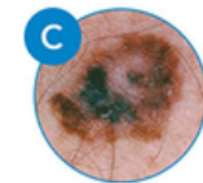
**A** is for **Asymmetry**

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](#)



# #4 Lung Cancer

Each year in Dickinson County there are about...

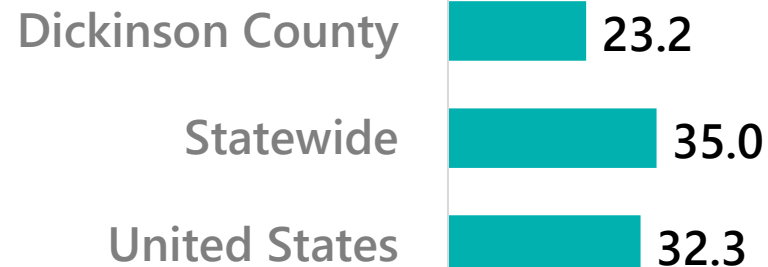
**19**

**New Cases** per year



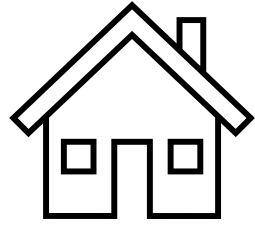
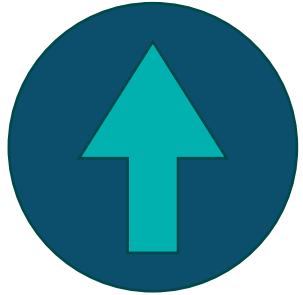
**11**

**Deaths** per year



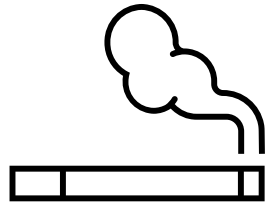
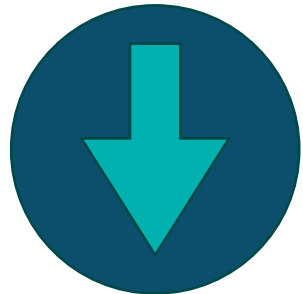
Age-Adjusted Rate per 100,000  
Incidence (2017-2021); Mortality (2018-2022)

# What can you do to prevent lung cancer?



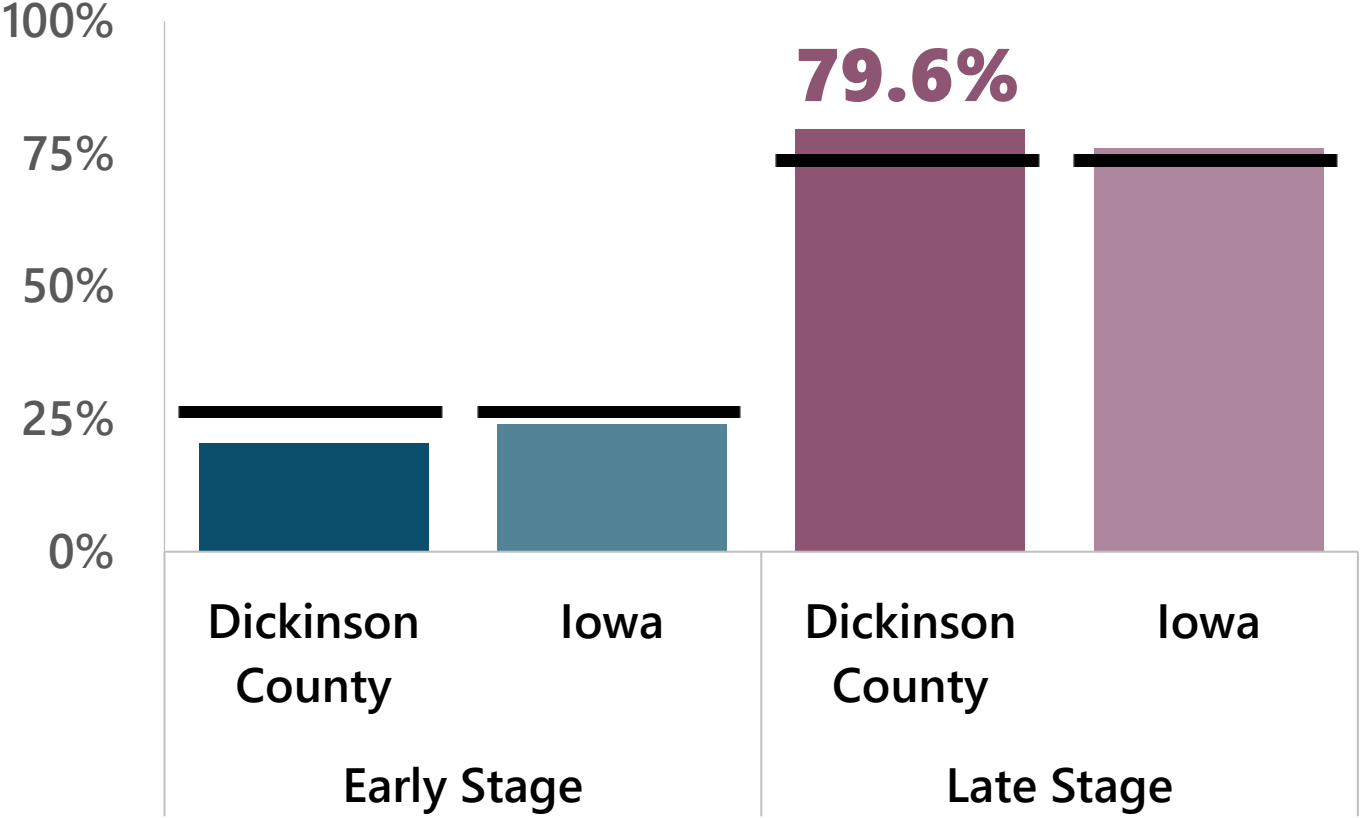
Test your home  
for Radon

**+ Get  
Screened!**



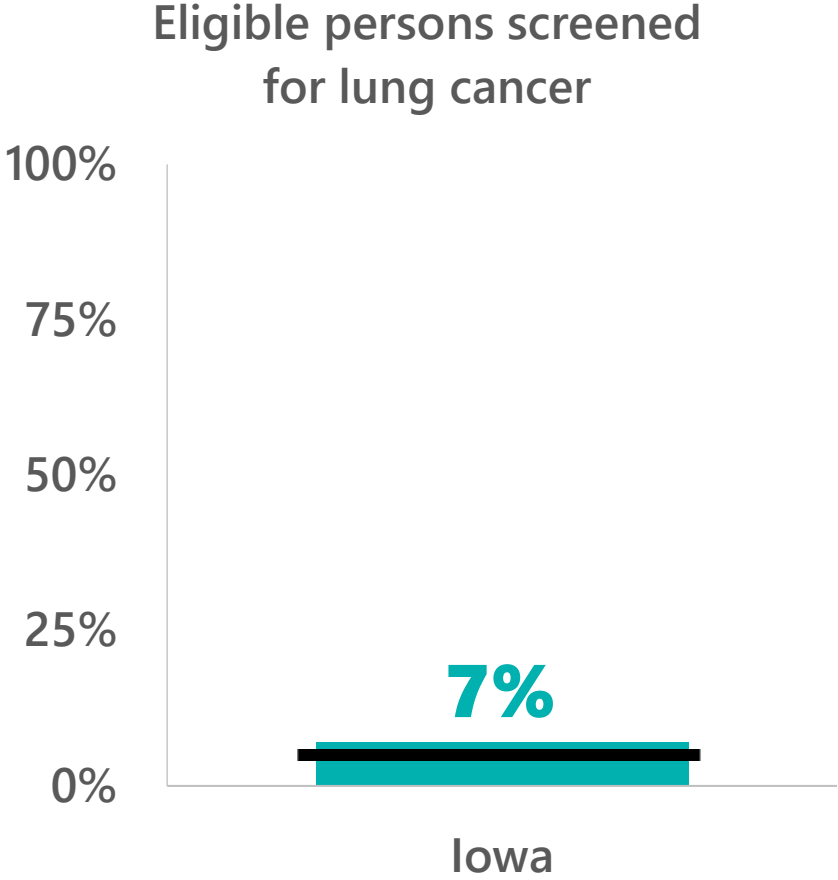
Smoking

# Lung Cancer: Stage at diagnosis



Early stage =  
Easier to treat,  
Higher survival rates

# Lung Cancer Screening



## Screening Guidelines

Lung cancer screening is a low-dose CT scan

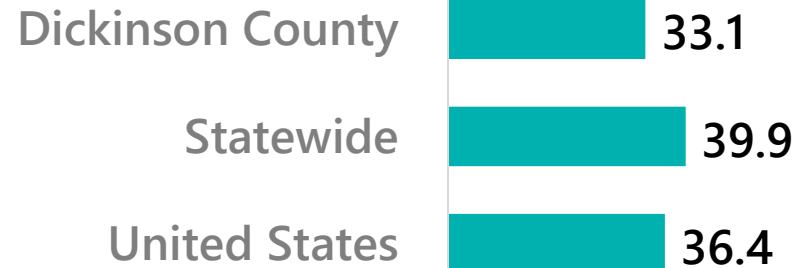
If you have smoked in the last 15 years and are between the ages 50-80 years talk to your doctor about being screened for lung cancer

# #5 Colorectal Cancer

Each year in Dickinson County  
there are about...

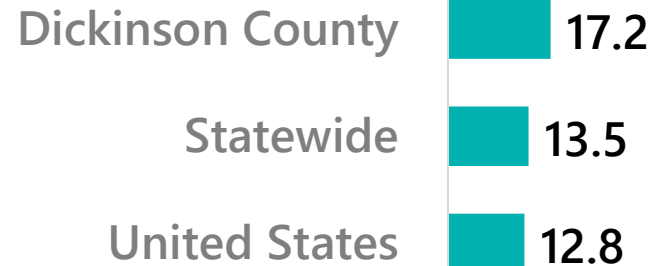
**9**

**New Cases** per year



**4**

**Deaths** per year

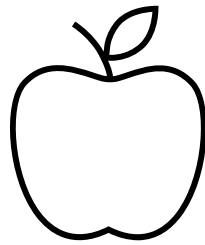


Age-Adjusted Rate per 100,000  
Incidence (2017-2021); Mortality (2018-2022)

# What can you do to prevent colorectal cancer?

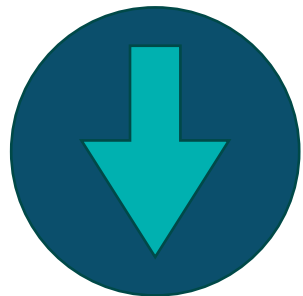


Physical  
Activity



Healthy  
Foods

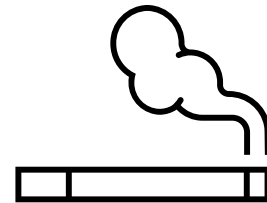
**+ Get  
Screened!**



Alcohol

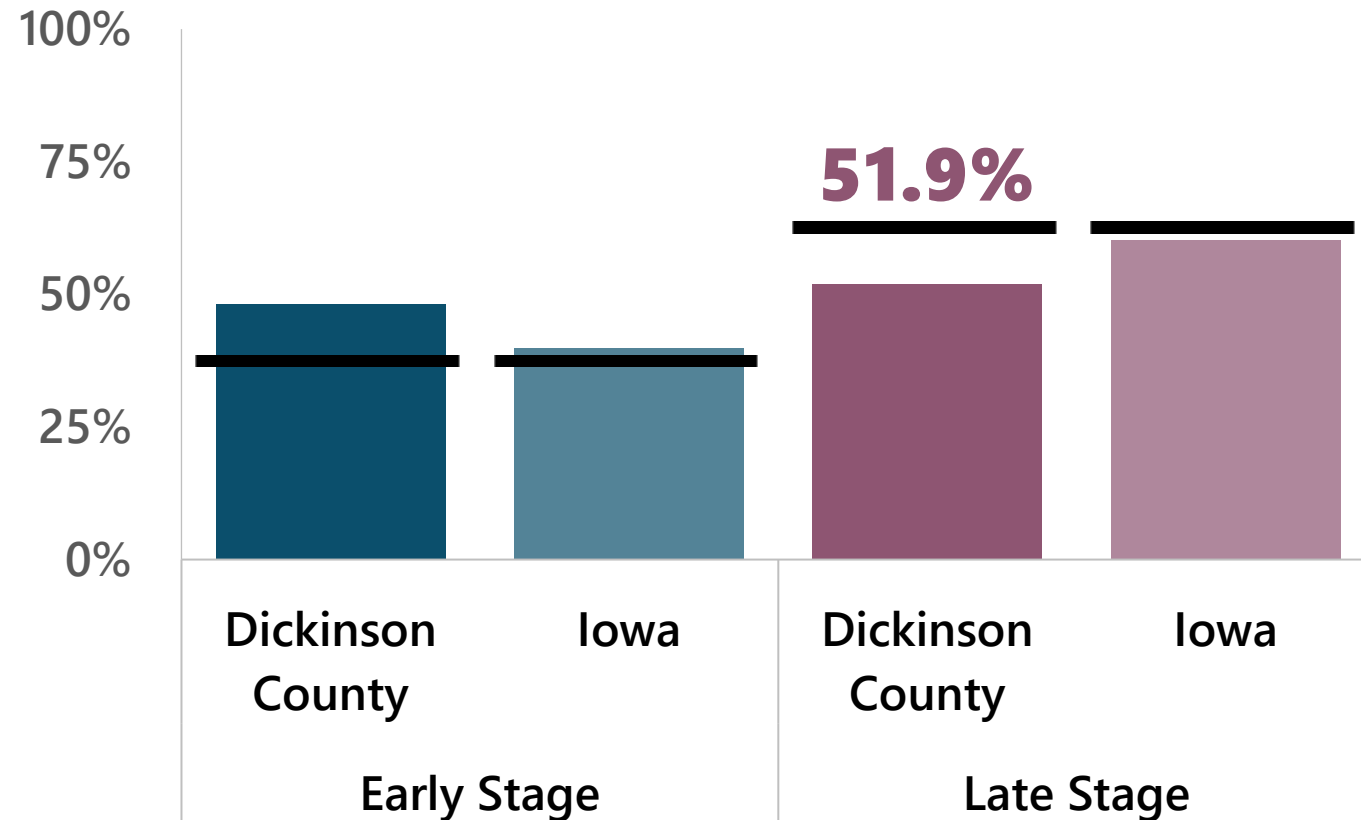


Excess Body  
Weight



Smoking/  
Tobacco

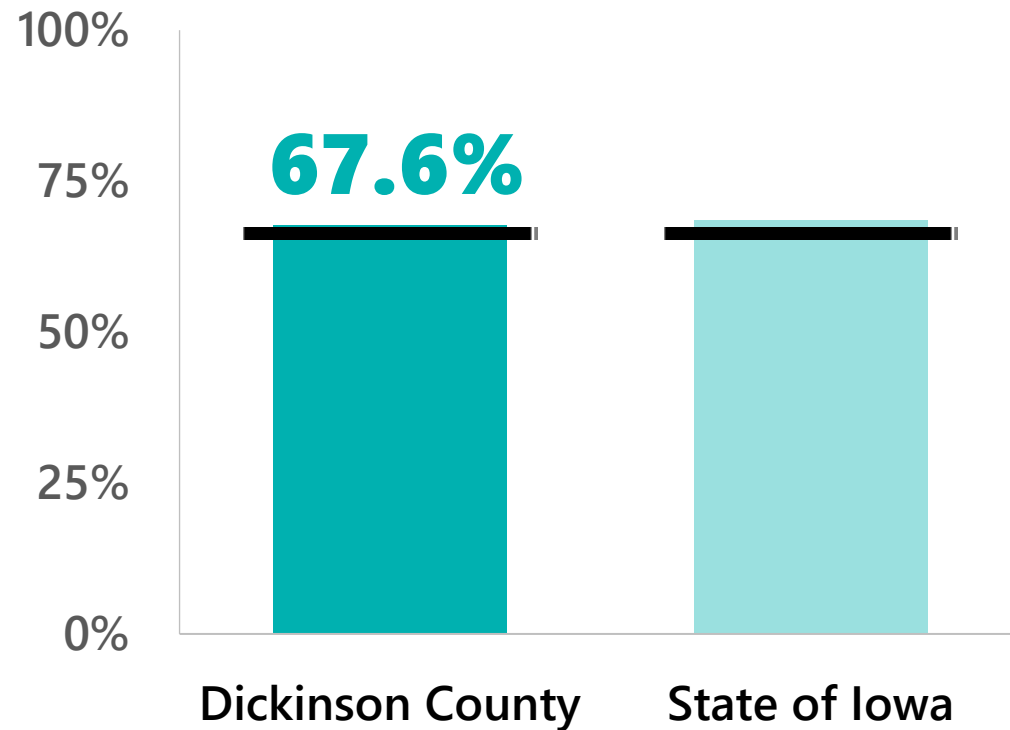
# Colorectal Cancer: Stage at diagnosis



Early stage =  
Easier to treat,  
Higher survival rates

# Colorectal Cancer Screening

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



## Screening Guidelines

Talk with your doctor about which is the best option for you

For all adults ages 45-75:

2 options

1. At home stool-based test
2. Colonoscopy



# 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:

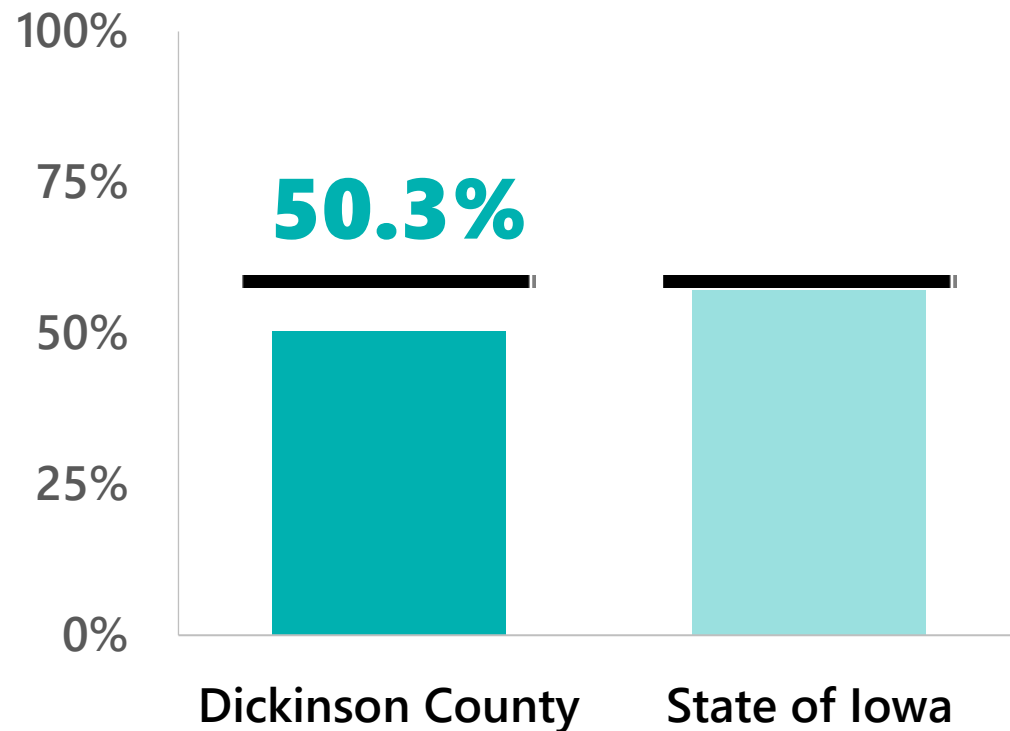
- ▶ Increase the number of cancers prevented
- ▶ Increase the diagnosis of early-stage colorectal cancer
- ▶ Reduce colorectal cancer incidence and mortality in the state



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

# A vaccine that prevents cancer: HPV

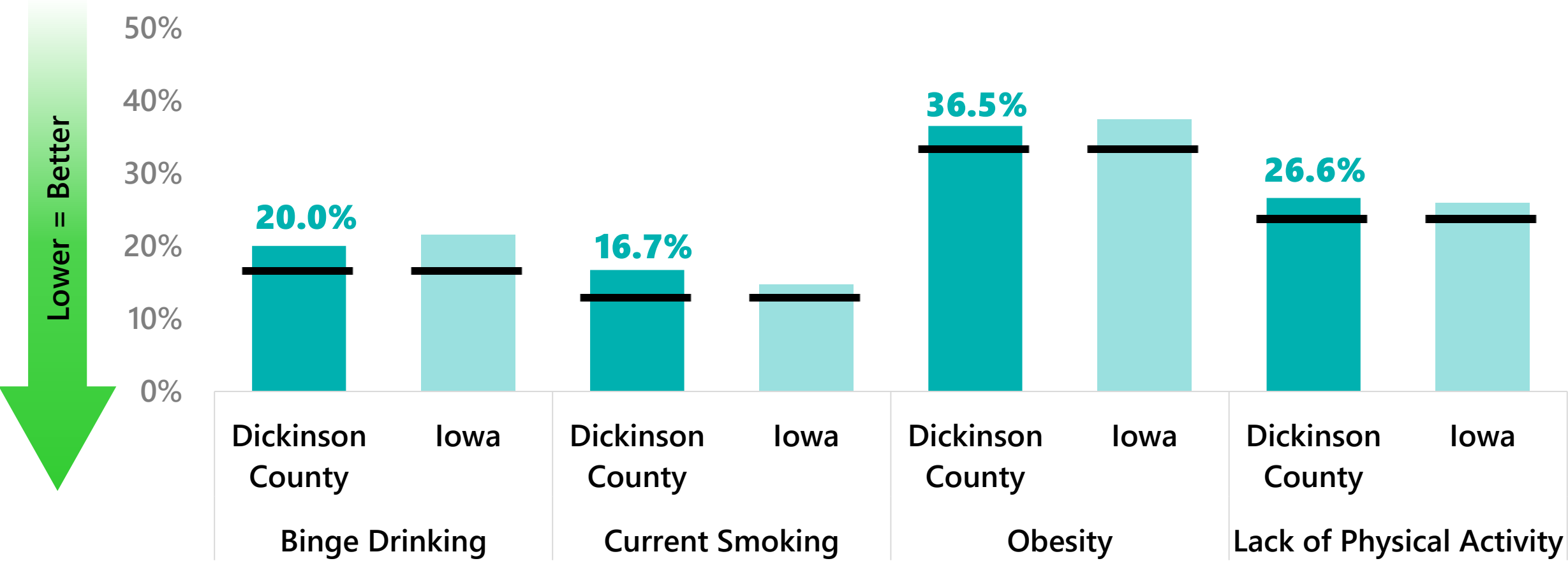
Adolescents ages 13-15 who have completed their HPV vaccine series



- 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 years: 2022

# Other Cancer Risk Factors

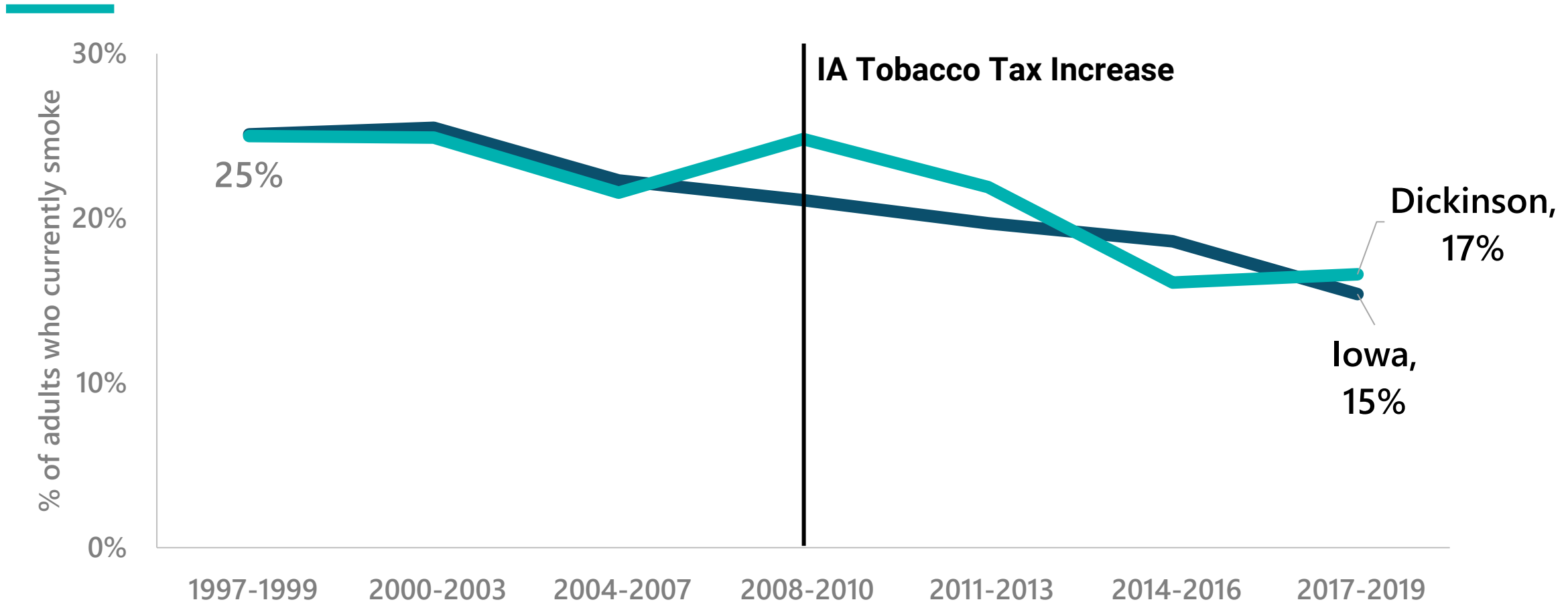


2022 model-based county-level estimates

PLACES. Centers for Disease Control and Prevention. Accessed 11/01/2024. <https://www.cdc.gov/places>



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



---

# Resources to help understand and address cancer in Iowa communities

# Iowa Comprehensive Cancer Control Program (CCCP)

We 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/>



Photo from the Iowa Cancer Consortium, taken at the Iowa Cancer Summit

# Iowa Cancer Consortium



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
- Blueprint for cancer control, the Iowa Cancer Plan

Virtually-hosted workgroups include:

- *Cancer Screening & Early Detection*
- *Health Equity*
- *HPV (w/ Iowa Immunizes coalition)*
- *Policy*
- *Radon*
- *Research & Clinical Trials*
- *Rural Cancer*
- *Quality of Life*
- *Cancer & the Environment Task Force*





# 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.

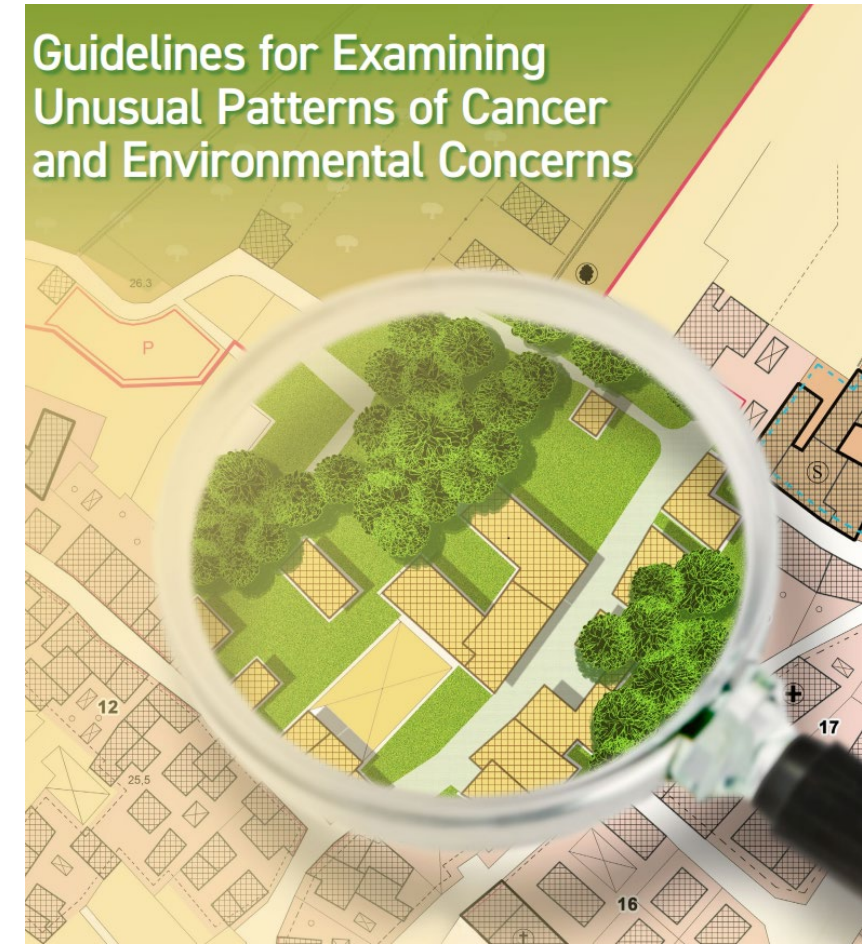
- 1. Health Equity:** identify and eliminate cancer health disparities.
- 2. Prevention and Risk Reduction:** whenever possible, prevent cancer from occurring.
- 3. Early Detection and Screening:** promote the benefits of screening tests to ensure early diagnosis.
- 4. Diagnosis and Cancer-Directed Therapy:** 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/)

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

- If you are concerned about cancer excess in your area, please email us at [ICR-CancerConcerns@uiowa.edu](mailto:ICR-CancerConcerns@uiowa.edu)
- We will ask you about:
  - Geographic area of concern
  - Cancer types diagnosed in the area
  - Time frame
  - Exposure(s) of concern
- If possible, ICR will conduct an analysis comparing the expected number of cancers to what's been observed
  - A written report of the results will be sent to you and a meeting to discuss the results will be offered



# Recommended Actions

## Iowa Cancer Plan

Use to identify strategies aligned with community-specific needs



## American Cancer Society Cancer Action Network

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

<https://www.fightcancer.org/>



## Iowa Cancer Consortium

Connect for state-wide collaboration and potential community-level funding

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



## Include cancer in needs assessments

Include cancer-relevant strategies in your hospital's community health needs assessments or public health department's needs assessment

<https://hhs.iowa.gov/lphs/cha-chip>



# Main Takeaways

Cancer is a critically important health issue facing the residents of Dickinson 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

**And let us know how we can help!**

# These slides will be posted

1. These slides will be posted to the Iowa Cancer Registry website: <https://shri.public-health.uiowa.edu/cancer-data/cancer-in-iowa-99-counties-project/>
2. We will write and post a more detailed report on our website to accompany this presentation



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

# Cancer in Iowa: 99 Counties Project Resource Guide

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- Organizations and programs we presented today
  - Iowa Rural Health Association
  - Environmental Exposures and Health Risks Fact Sheets
  - Agricultural Health Study
  - Center for Health Effects of Environmental Contamination
- IHHS Programs
    - Tobacco Use Prevention and Control
    - Immunization Program
    - The Hepatitis Program
    - Iowa Private Well Grants Program
    - Radon



Located under the  
“Resources”  
drop down menu



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# Thank you!

→ <https://shri.public-health.uiowa.edu/>

Email questions here: [ICR-99countiesproject@uiowa.edu](mailto:ICR-99countiesproject@uiowa.edu)