

### Cancer in

#### Mills County

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

May 2<sup>nd</sup>, 2025

#### Who we are



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

- Assistant Professor, University of lowa 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, 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







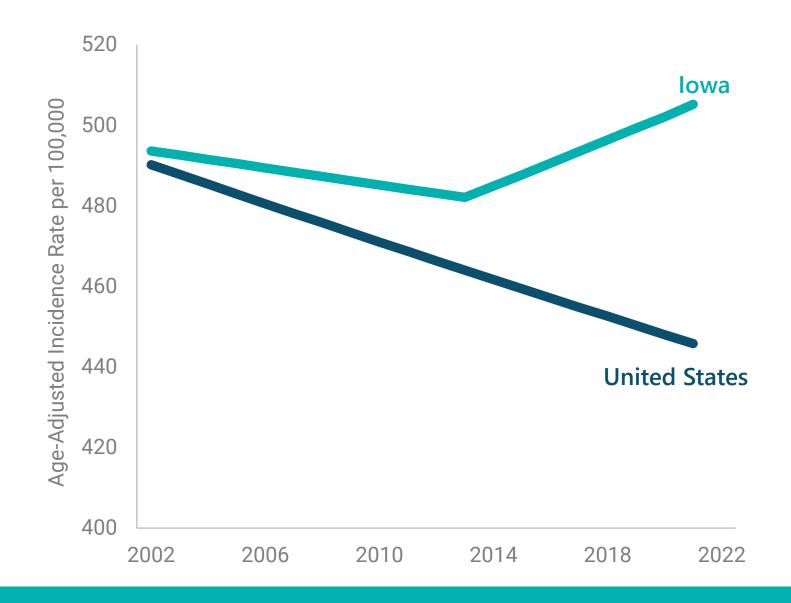


**Holden Comprehensive Cancer Center** 



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

lowa's rate is rising while the rest of the country improves

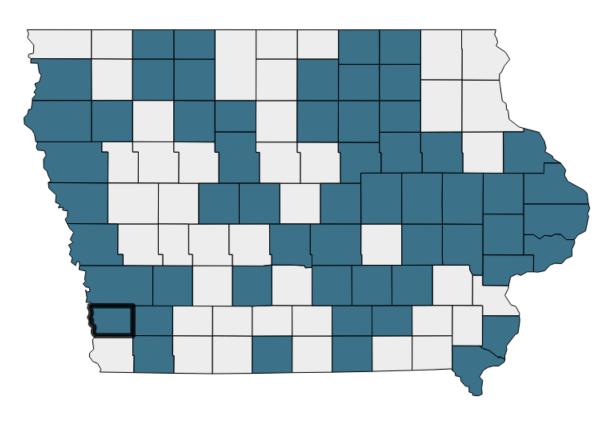




## Over half of Iowa's counties have a higher incidence rate than the U.S.

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

O Counties below the national average

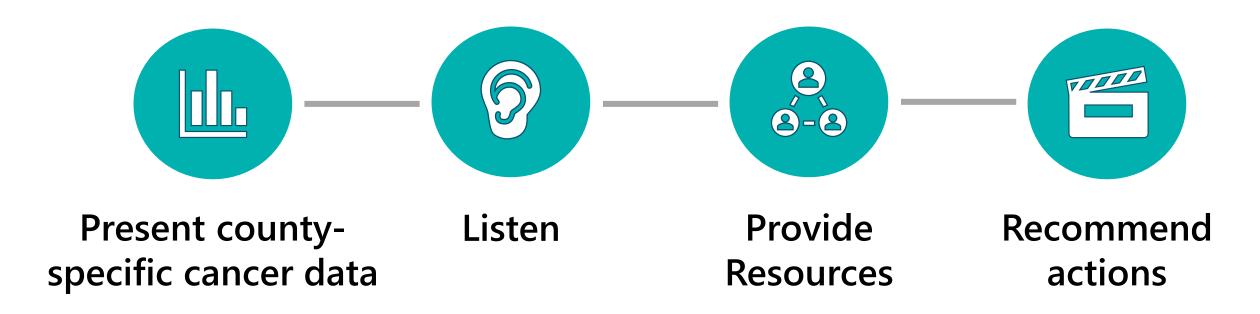


- Above National rates
- Similar to National rates



#### **About the Project**

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





# "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

#### lowa Legislature

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



Health and Human Services

**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 lowa

Provide cancer prevention, screening, treatment, and survivorship services



Holden Comprehensive Cancer Center

Iowa's only NCI Designated
Cancer Center

Health Care, research, education



Iowa Cancer Consortium

Advocate, collaborate, plan



Data, research, education

American
Cancer
Society

#### **Iowa Cancer Action Network**

Advocate for better policies

#### **ACS Iowa**

Help with cancer treatment and recovery

#### **UI Research Centers**





Center for Health Effects of Environmental Contamination



#### **Federal Funding for Cancer Control**

- The <u>Iowa Cancer Registry</u> 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 <u>Cancer in Iowa: 99 Counties Project</u> 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 <u>lowa Cancer Consortium</u> acknowledges the **Centers for Disease Control and Prevention** (CDC) for its funding support under cooperative agreement NU58DP007103 awarded to the lowa Department of Health and Human Services (lowa 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.



#### **Iowa Cancer Registry Goals**



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

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

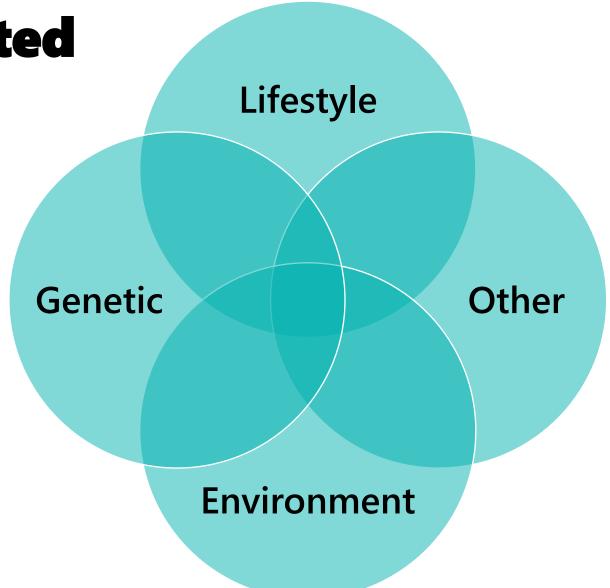
**Support studies** for cancer prevention, research & education



# Background on Cancer

#### **Cancer is Complicated**

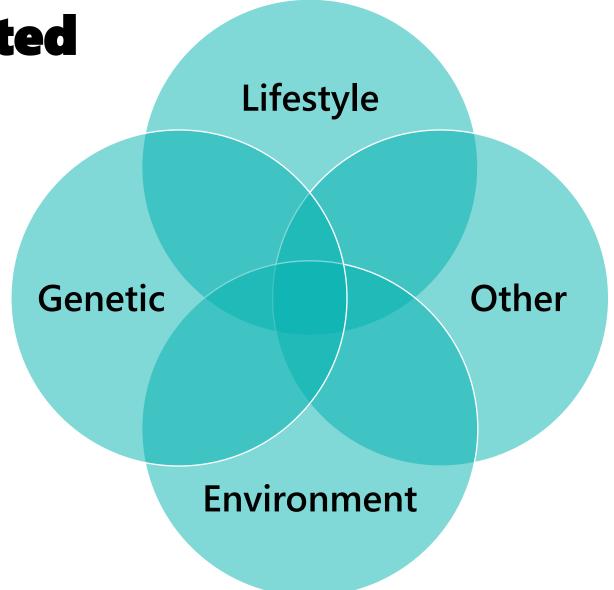
There is no one cause of cancer; it is a combination of different genetic, lifestyle, environmental, and **structural** risk factors that change the function of cells



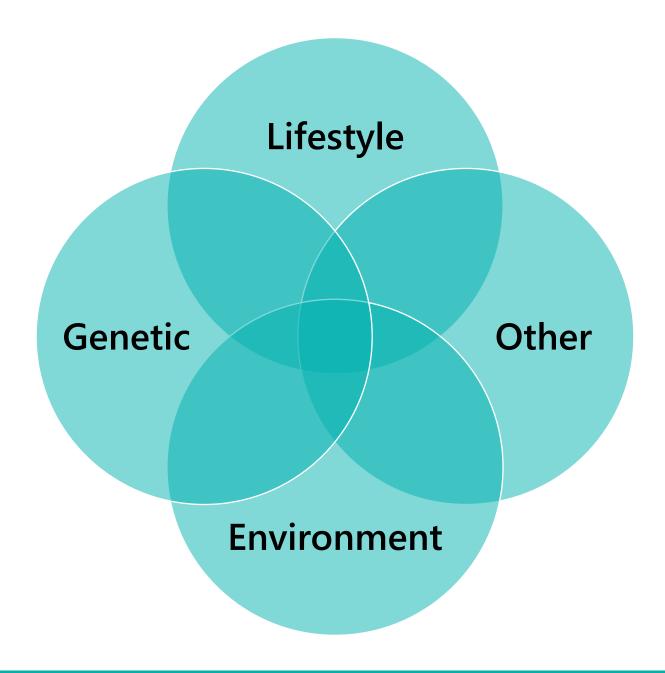


#### **Cancer is Complicated**

Risk factors are things that increase your chances of getting cancer

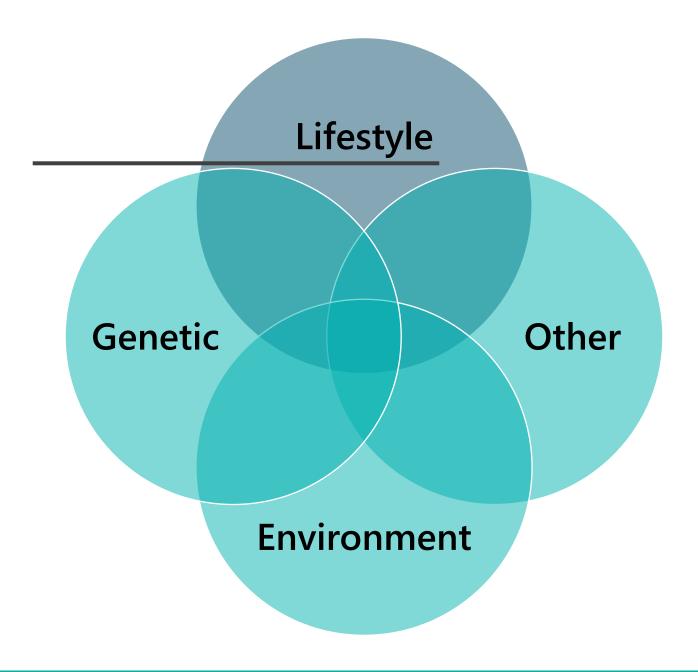




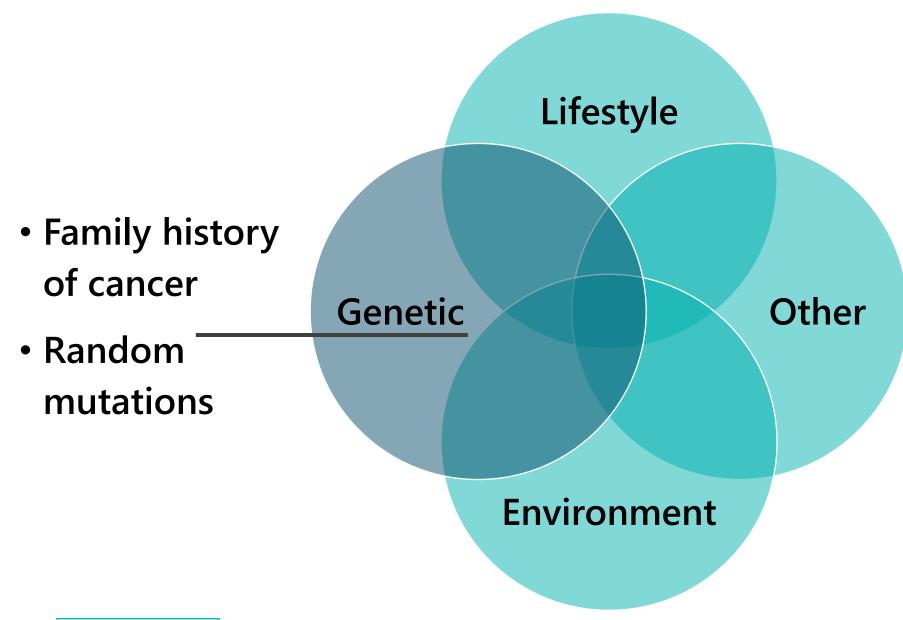




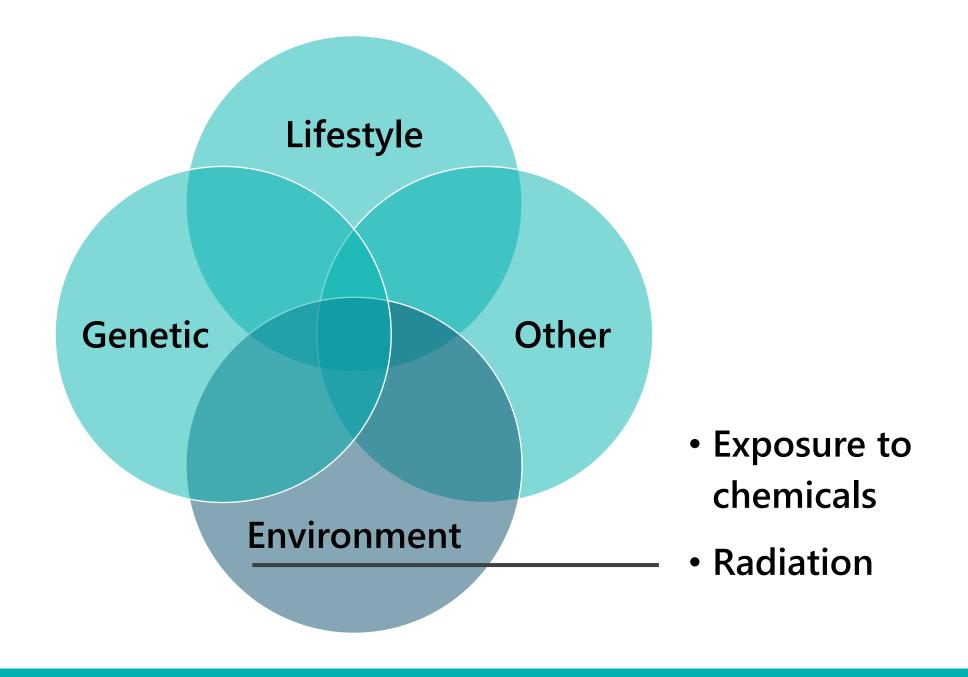
- Tobacco
- Alcohol
- Unhealthy diet
- Not being physically active
- Sunburns



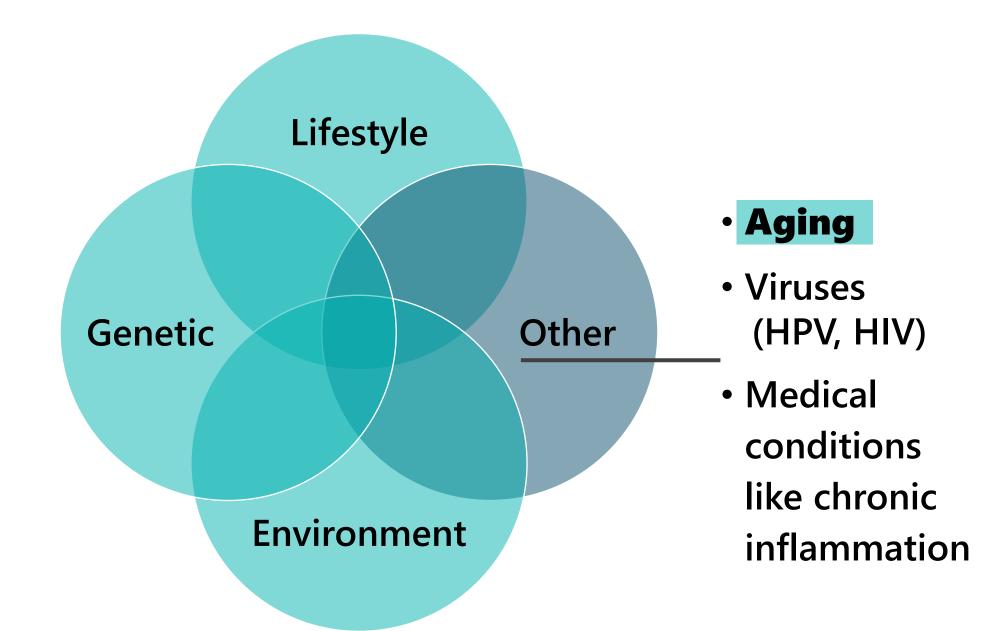














#### **Cancer & the Environment**

- Many Iowans understandably have questions about potential links between environmental exposures and cancer
- This is an important area of continued research, and lowans 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
- 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**

- 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?



#### Stage definition used today

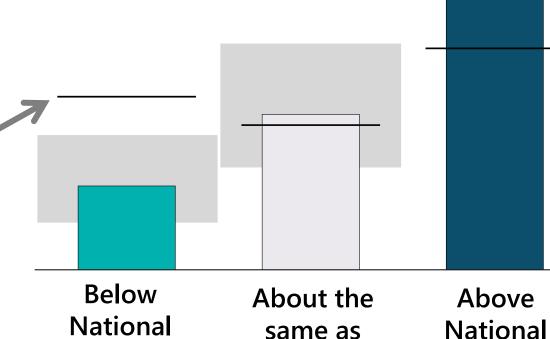
- Early Stage includes
  - Localized: Cancer is limited to the place where it started, with no sign that it has spread
- Late Stage includes
  - Regional: Cancer has spread to nearby lymph nodes, tissues, or organs.
  - Distant: Cancer has spread to distant parts of the body



#### How to read the graphs

Unless otherwise stated, bars are your county data

Black lines on bar graphs are United States data



**National Rates** 

Rates

Rates

Grey boxes on bar graphs are 95% Confidence Intervals.

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



# Cancer in Mills County

#### **New Cancers in Mills County**

All cancer types, average counts and rates, 2017-2021

Each year, there are about

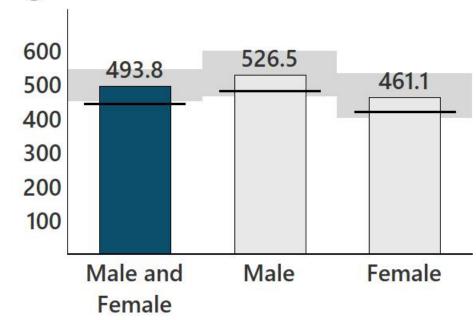
98

new cancers diagnosed in Mills County

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

Ranks #49 of 99 counties

Cancer incidence rates are typically higher in men than women





#### **Cancer deaths in Mills County**

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

Each year, there are about

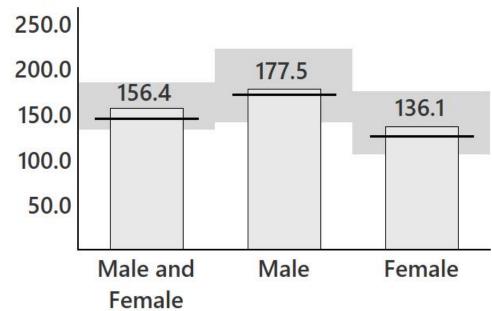
31

cancer deaths in Mills County

Cancer mortality rates in Mills County are not different from the U.S. average

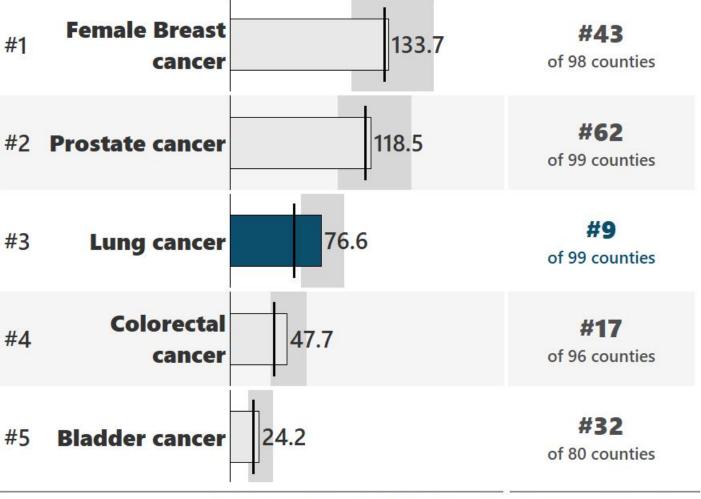
Ranks #37 of 99 counties

Cancer mortality rates are typically higher in men than women





## **Top cancers in Mills County**



Age-Adjusted rate per 100k, 2017-2021

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



#### **#1** | Female Breast cancer

Each year in Mills County, there are about... 133.7 Mills County #2 Statewide 136.9 #3 New Cases per year **United States** 129.8 Mills County \*Too few cases to show rates #4 17.8 Statewide **Deaths** per year #5 **United States** 19.2



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

#### What can you do to prevent breast cancer?

**Taking** 

**Hormones** 







**Physical Activity** 

Healthy **Foods** 



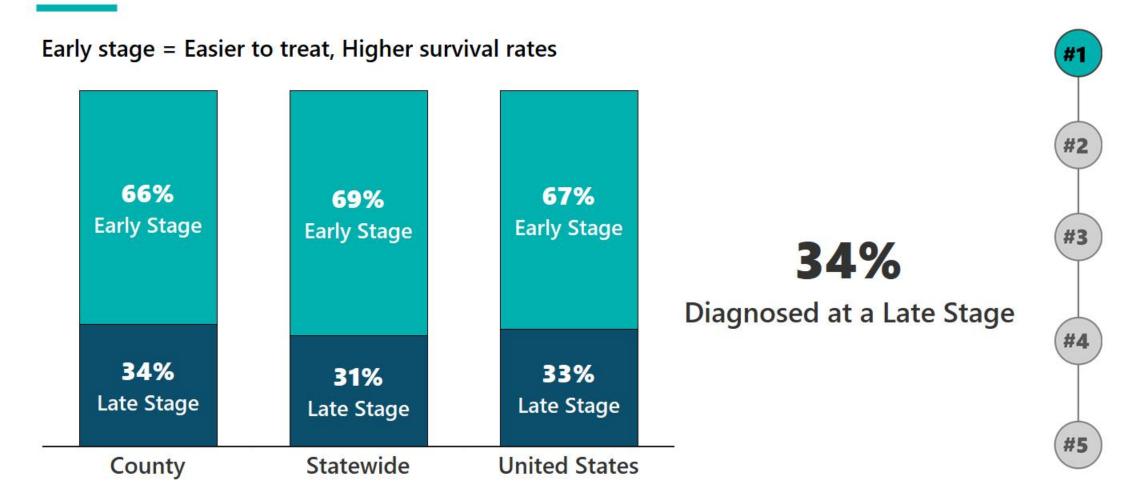






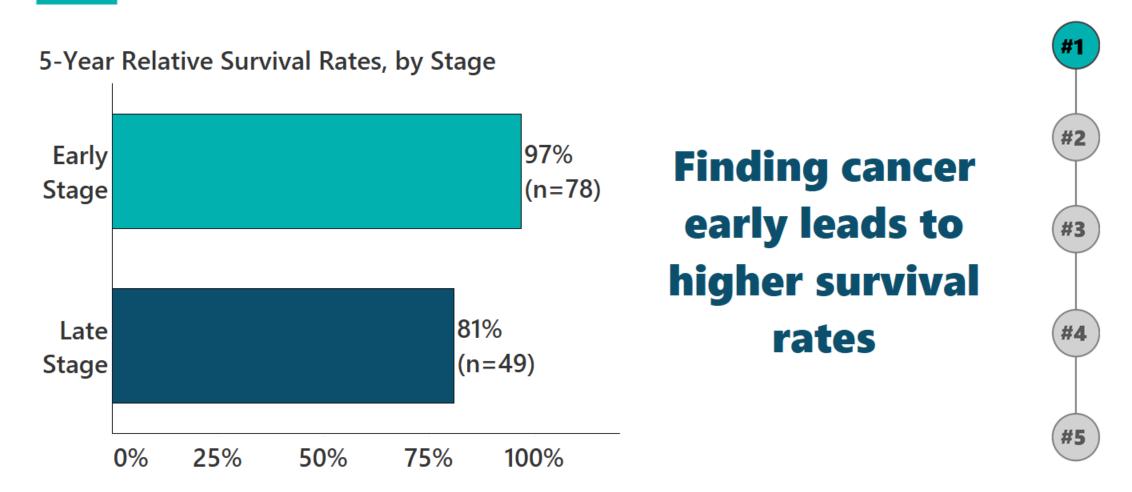


#### **#1** | Female Breast cancer Stage at Diagnosis





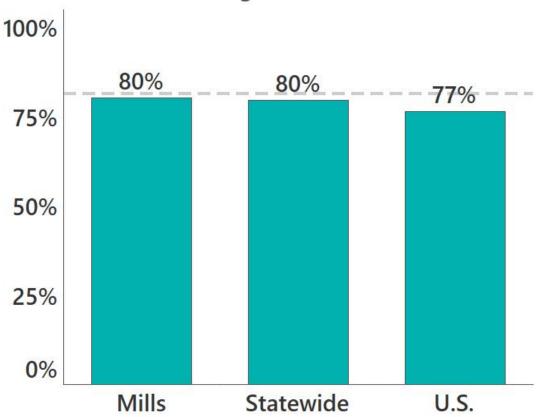
#### #1 | Female Breast cancer | 5-Year Survival





#### **Breast Cancer Screening**

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



#### **Screening Guidelines**

People with breasts 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. Preventative Services Task Force)



Data from 2022 BRFSS Goal: 81.4% by 2027

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

We provide free breast and cervical cancer screenings across lowa.

- ► 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 Mills County, #1 there are about... 118.5 Mills County #2 125.9 Statewide #3 New Cases per year **United States** 113.2 Mills County \*Too few cases to show rates #4 Statewide 19.8 **Deaths** per year

18.8

**United States** 



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

#5

#### What can you do to prevent prostate cancer?







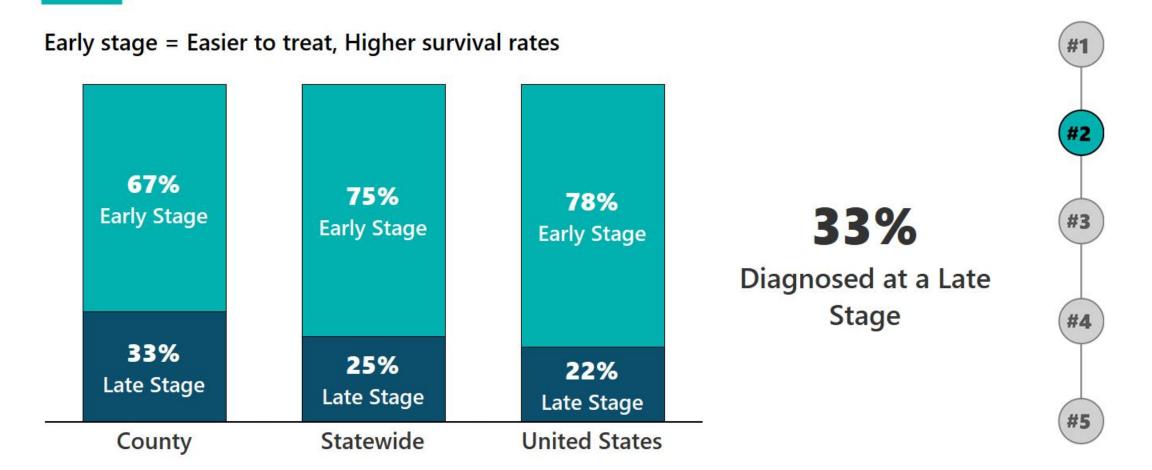






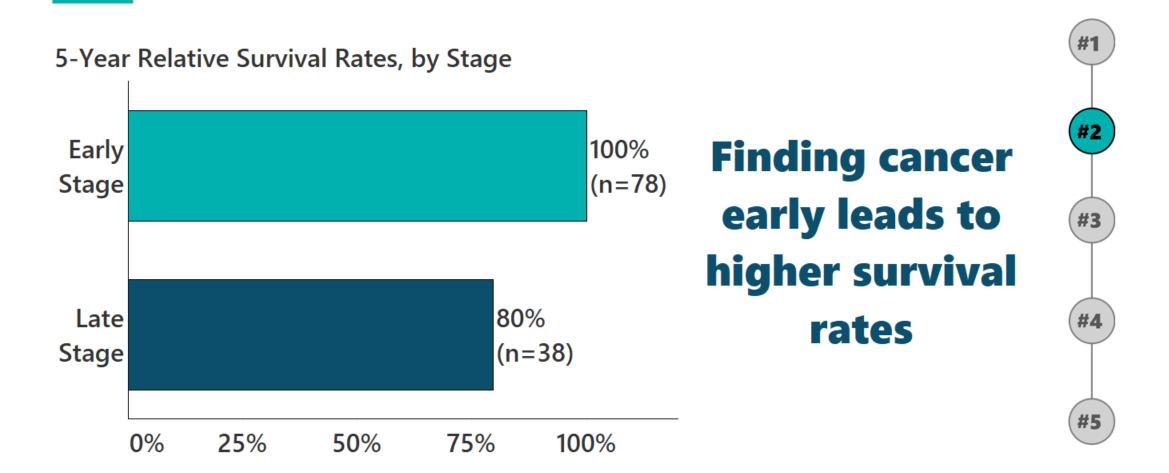


# **#2** | Prostate cancer | Stage at Diagnosis





## **#2** | Prostate cancer | 5-Year Survival





#### **Prostate Cancer Screening**

#### **Screening Guidelines**

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

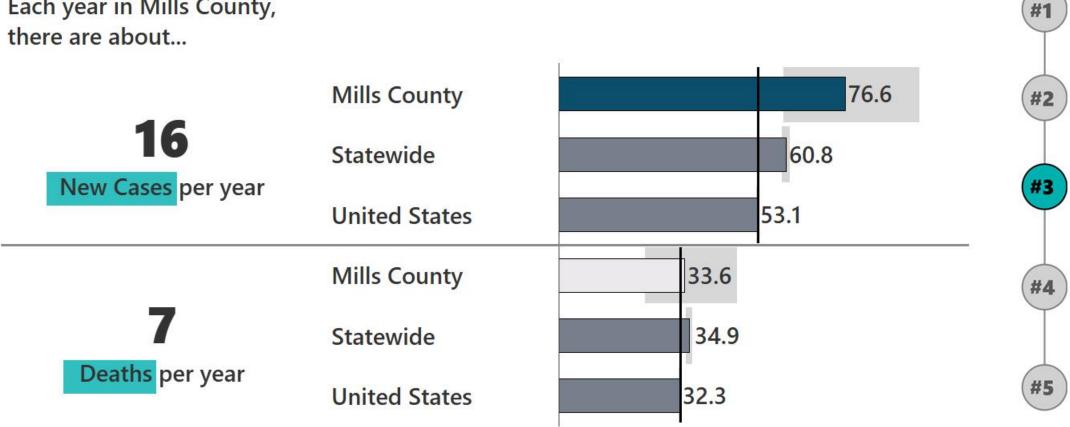
If you have a prostate and are 55-69 years old, discuss with your doctor if a PSA test is right for you

(U.S. Preventative Services Task Force)



# **#3** | Lung cancer

Each year in Mills County,





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!







#### What is Radon?

- Radon is an invisible, tasteless, odorless, radioactive gas
- It is naturally produced by radium and uranium in the soil
- Radon becomes harmful when it becomes trapped and concentrated in the air
  - For example, when it leaks into a basement through a crack in the foundation or a space around a pipe

Learn more about Radon testing and mitigation:

Iowa Health & Human Services <a href="https://health/radon">hhs.iowa.gov/radiological-health/radon</a>

Iowa Cancer Consortium <a href="mailto:canceriowa.org/radon/">canceriowa.org/radon/</a>

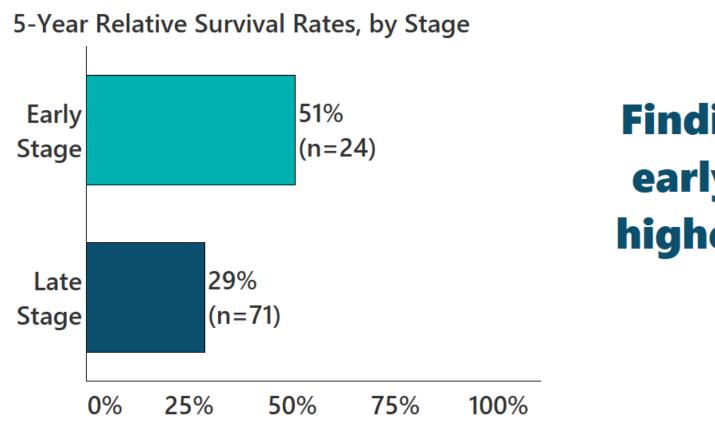


## **#3** | Lung cancer | Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates #1 24% 26% 33% #2 **Early Stage Early Stage Early Stage 67%** (#3 Diagnosed at a Late 76% 74% 67% Late Stage Stage Late Stage #4 Late Stage #5 County Statewide **United States** 



#### **#3** | Lung cancer | 5-Year Survival







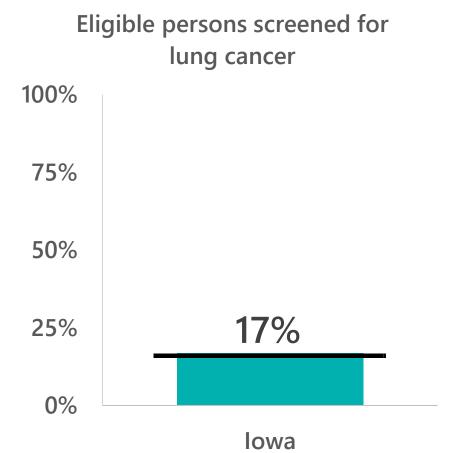
#2

(#3

#4

#5

## **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

(U.S. Preventative Services Task Force)



## **#4** | Colorectal cancer

Each year in Mills County, there are about... 47.7 Mills County #2 39.9 Statewide **New Cases** per year #3 **United States** 36.4 \*Too few cases to show rates Mills County #4 13.5 Statewide **Deaths** per year #5 **United States** 12.8



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

#### What can you do to prevent colorectal cancer?







Physical Activity

Healthy Foods



Smoking/ Tobacco

+ Get Screened!







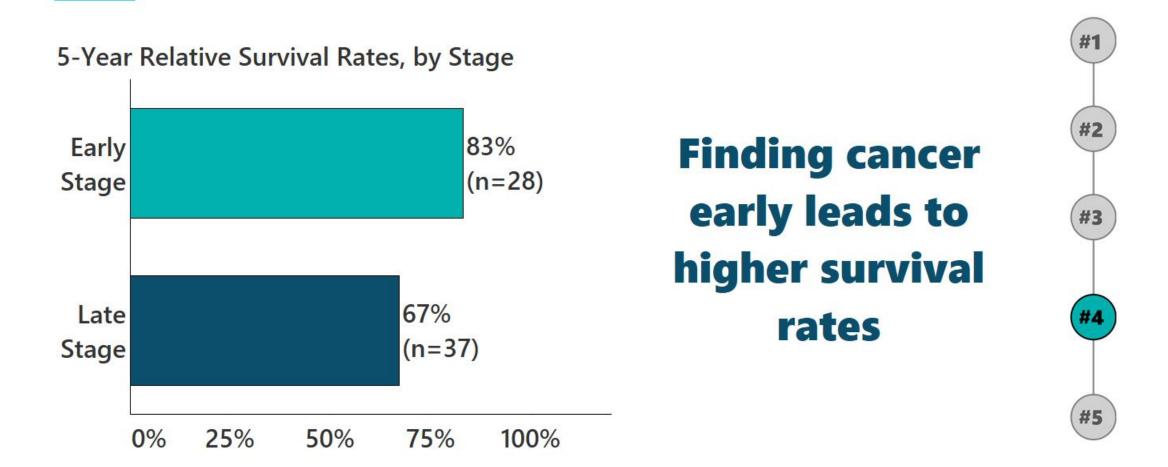


## #4 | Colorectal cancer | Stage at Diagnosis

Early stage = Easier to treat, Higher survival rates #1 37% 40% #2 43% **Early Stage Early Stage Early Stage 57%** #3 Diagnosed at a Late 63% 60% Stage 57% #4 **Late Stage Late Stage** Late Stage #5 County Statewide **United States** 



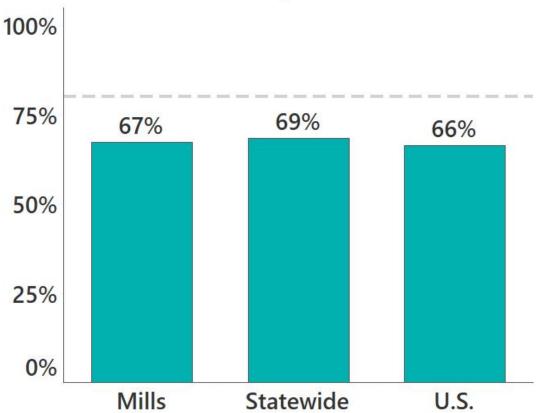
# #4 | Colorectal cancer | 5-Year Survival





#### **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. Preventative Services Task Force)





#### **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:

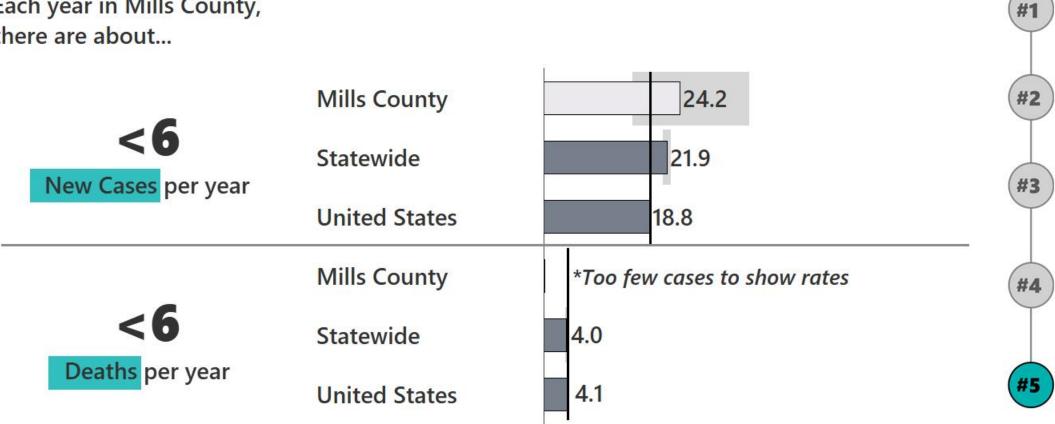
- ► Increase the number of cancers prevented
- ► Increase the diagnosis of early-stage colorectal cancer
- ► Reduce colorectal cancer incidence and mortality in the state



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

# **#5** | Bladder cancer

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





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

# What can you do to prevent bladder cancer?









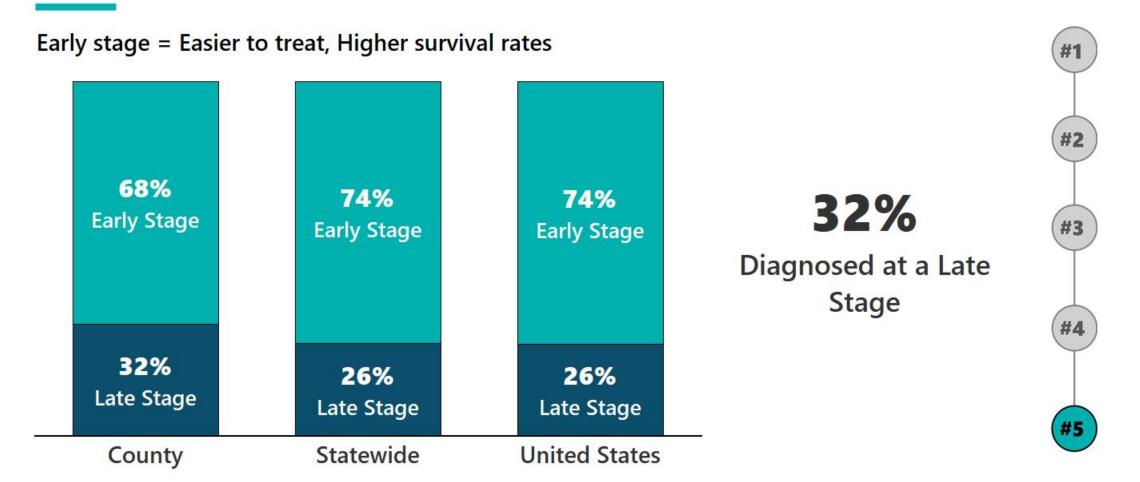
# Talk to your doctor if you experience...

- Blood in urine
- Frequent urination
- Pain or burning during urination
- Feeling as if you need to urinate even if your bladder isn't full
- Urinating often during the night

These are common symptoms seen with other diseases of the urinary system like urinary tract infections, kidney or bladder stones, or other problems related to the kidney could be the cause, not cancer

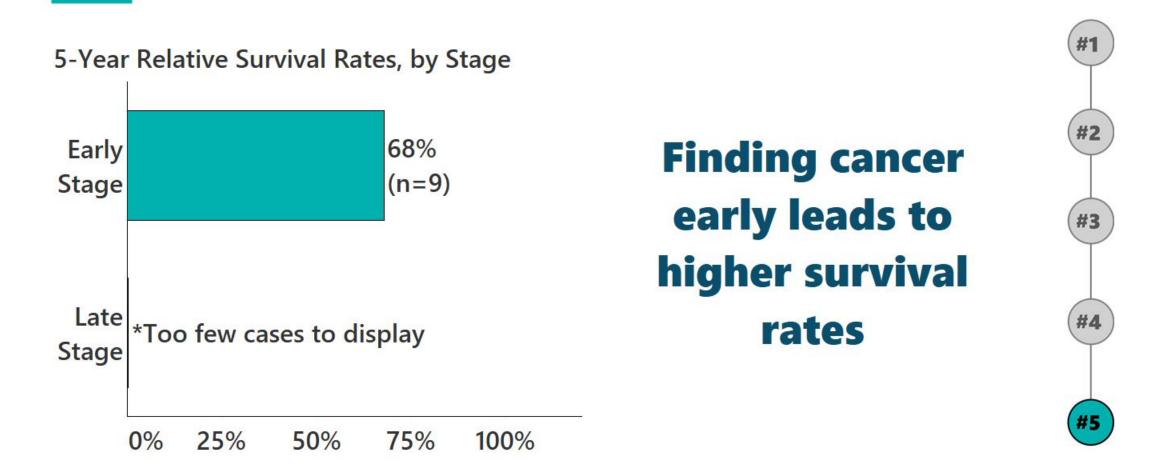


## **#5** | Bladder cancer | Stage at Diagnosis





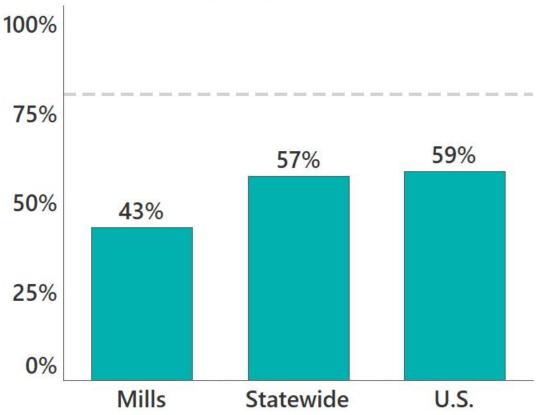
# **#5** | Bladder cancer | 5-Year Survival





#### A vaccine that prevents cancer: HPV

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

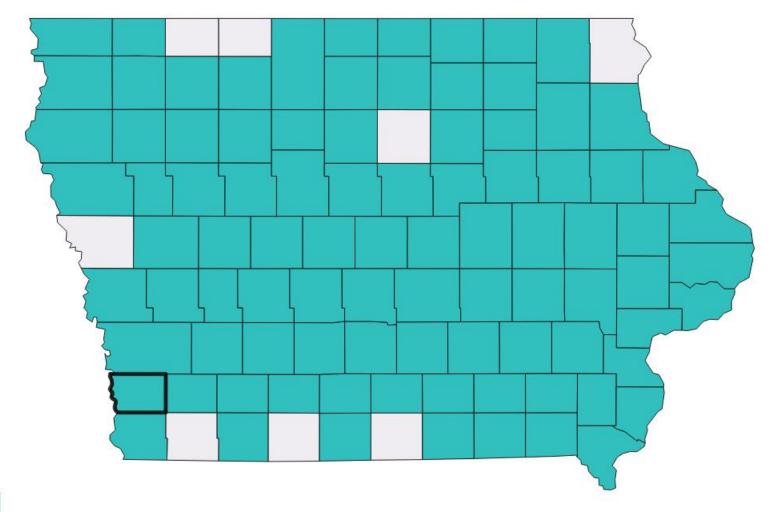


- HPV infection can cause cancers of the cervix, mouth and throat, anus, rectum, penis, vulva, and vagina.
- Iowa has the highest rate of oropharyngeal cancer in the U.S.
- Vaccine provides safe, effective, and lasting protection against HPV, thus reducing cancer risk
- Recommended at age 11 or 12 years,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



Data from 2022 IHHS & NIS-Teen Goal: 80% by 2027

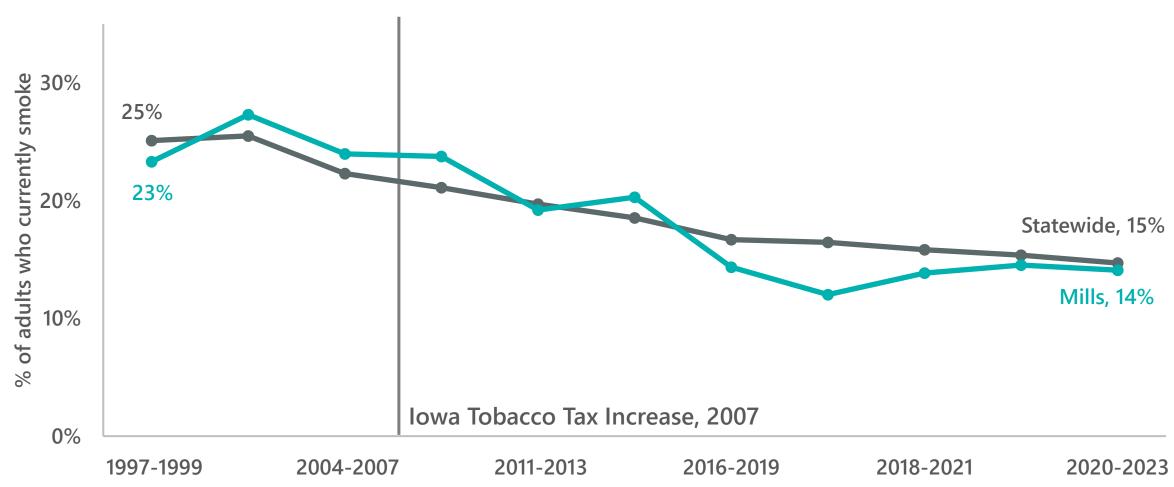
# After the last tobacco tax was passed in 2007, smoking rates decreased in 92% of Iowa counties





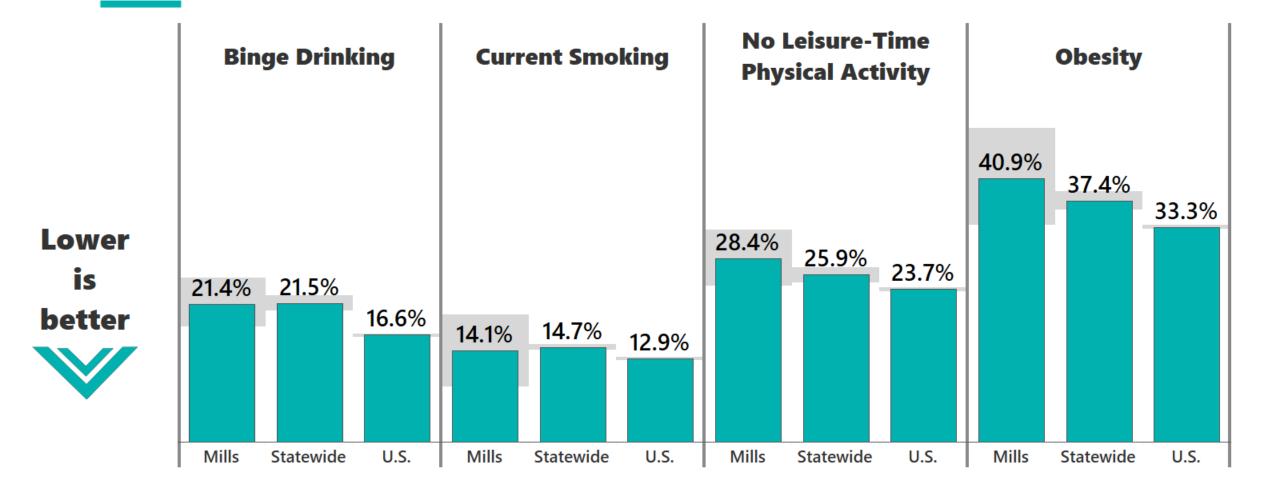
# After the last increase to the tobacco tax was passed in 2007, smoking rates decreased in Mills County

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





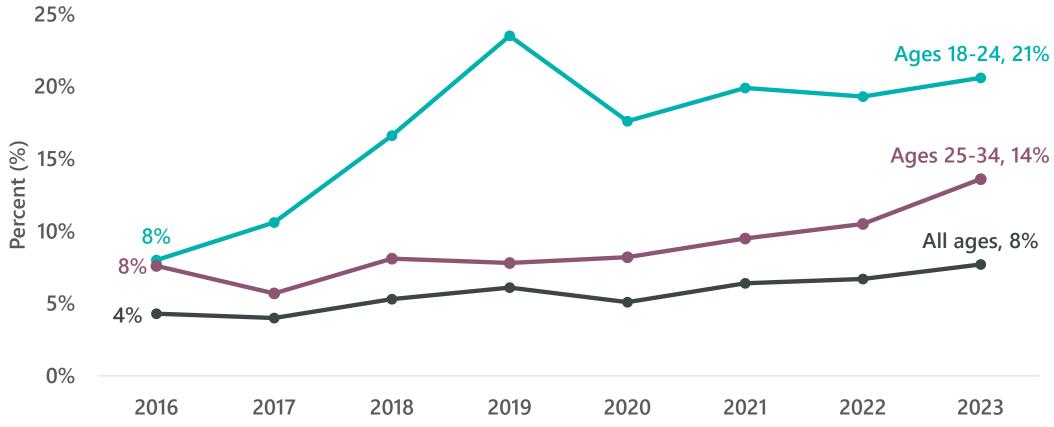
#### **Other Cancer Risk Factors**





#### **E-Cigarette Use in Iowa**

E-Cigarette Use by Year and Age among Iowa BRFSS Respondents, 2016-2023





# **Resources** to help understand and address cancer in lowa communities

#### **Iowa Comprehensive Cancer Control Program (CCCP)**

We work with partners to prevent cancer whenever possible and support cancer survivors across lowa.

- ► 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.

DELVERY DELVERY

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

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



#### **lowa 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
- 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 *lowa 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**

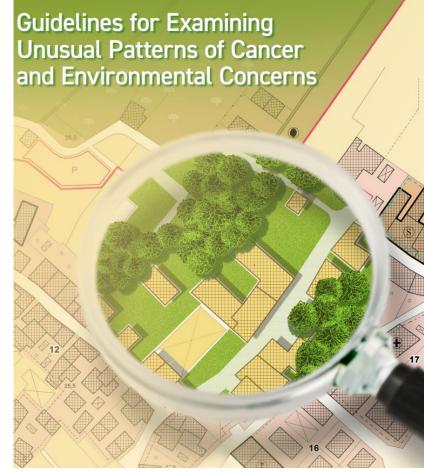
2023-2027



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 <a href="mailto:ICR-CancerConcerns@uiowa.edu">ICR-CancerConcerns@uiowa.edu</a>
- 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 meeting will be held to discuss the results of the analysis and a written copy of the report will be sent to you





# This is only the first step.

#### **Recommended Actions**



#### **Iowa Cancer Plan**

Use to identify strategies aligned with community-specific needs

canceriowa.org/iowa-cancer-plan/





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

www.fightcancer.org



#### **lowa Cancer Consortium**

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

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

hhs.iowa.gov/lphs/cha-chip



## What can you do next?

#### **Reduce Lung Cancer**

We know tobacco- and nicotine-free policies, reducing out-of-pocket costs for cessation treatments, and mass communications can help reduce lung cancer

#### **Breast Cancer**

We know engaging community health workers, developing clinic-specific interventions, and supporting care navigation are effective in addressing breast cancer.

#### **Prevent Skin Cancer**

We know providing sunscreen and UV-safety education in outdoor occupational, recreation/tourism, and childcare settings can help prevent skin cancer.

#### **Prostate Cancer**

We know educating about the link between tobacco, alcohol, and obesity and prostate cancer; and about the link between chemical exposures and prostate cancer; as well as promoting shared decision-making between individuals and providers helps reduce the burden of prostate cancer.



# **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 like the Iowa Cancer Registry, the Iowa Cancer Consortium, Iowa HHS, and your local public health department can provide ideas, advise, and help find data, evidence, and other resources, but ultimately you are the experts.
- A good place to start is by **taking stock of the information presented today** and where the opportunities for change might be within your county, town, or organization. Use the lowa Cancer Plan for inspiration and reach out to the lowa Cancer Consortium for partnership in moving forward.



#### **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

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



## Mills County Resources

#### **Water Test Kits**

Through Private Well Grants, residents have access to free water test kits.

These tests are provided through the Mills County Environmental Office and the State Hygienic Lab (SHL). A limited number of kits are available to private well owners in Mills County.

For more information, contact the Mills County Environmental office at 712-527-4347 or email Matthew Scott, Environmental Specialist at mscott@millscountyiowa.gov

#### **Tobacco Prevention & Education**

For helpful information and tips on how you can stop smoking, visit the QUITLINE lowa website!

For more information call 712-527-9699.

# Cancer in Iowa: 99 Counties Project Resource Guide

- 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 the...

- Agricultural Health Study
- Environmental Exposures and Health Risks Fact Sheets
- Center for Health Effects of Environmental Contamination
- Iowa Private Well Grants Program





## **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.

- Includes over 50,000 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

The aim of this study is to understand what risks there are to farmers and how they can protect themselves.

#### **Environmental Exposures and Health Risks Fact Sheets**

#### These facts sheets 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
- Glyphoste
- Nitrate
- Radon



#### NEW Environmental Exposures & Health Risks Fact Sheets







The University of Iowa Center for Health Effects of Environmental Contamination (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 Dr. Cwiertny at the email address below.



David Cwiertny
Director of CHEEC



# Iowa Private Well Grants Program Iowa Health & Human Services

Iowa's <u>Private Well Grants Program</u> (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.

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

**County Health Department - contact list** 

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

Follow this QR code or the links below to learn more!



#### These slides will be posted

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

www.iowacancerregistry.org/99



If you have questions, please email us at <a href="ICR-99countiesproject@uiowa.edu">ICR-99countiesproject@uiowa.edu</a>

#### Media

If you are a representative of the media and would like more information on this presentation or to speak with someone from the lowa Cancer Registry, contact <a href="mailto:ICR-Media@uiowa.edu">ICR-Media@uiowa.edu</a>.



# Thank you!

→ www.iowacancerregistry.org/99