

Cancer in Polk County

Mary Charlton, PhD & Whitney Zahnd, PhD

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Who we are



Mary Charlton, PhD

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



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



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

Media

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

Survey

We would appreciate your feedback on this presentation.

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

99 Counties Project Team



Iowa Cancer
Consortium

www.canceriowa.org



IOWA
HEALTH CARE
Holden Comprehensive
Cancer Center



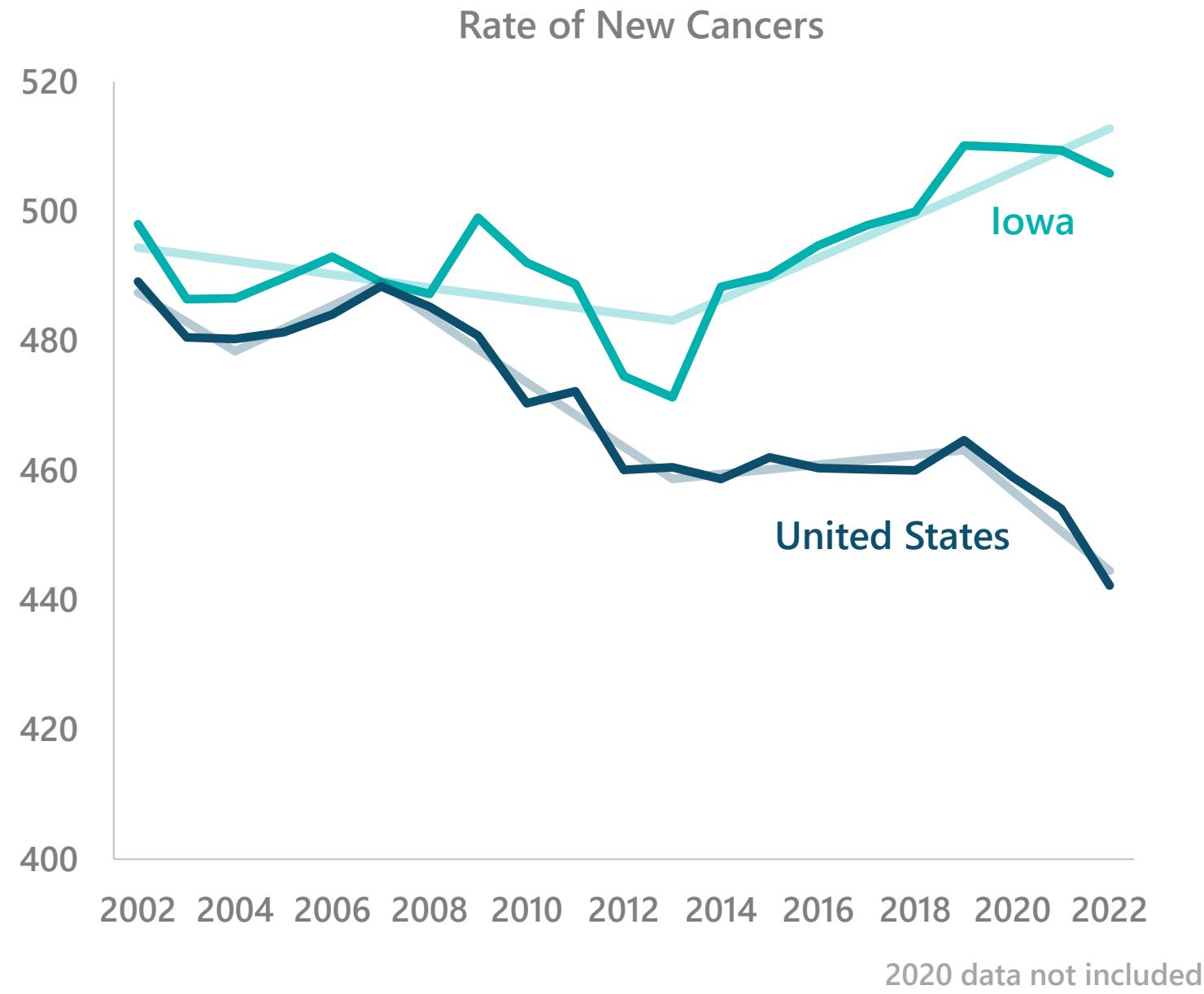
Health and
Human Services

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

Dr. Irving Selikoff

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

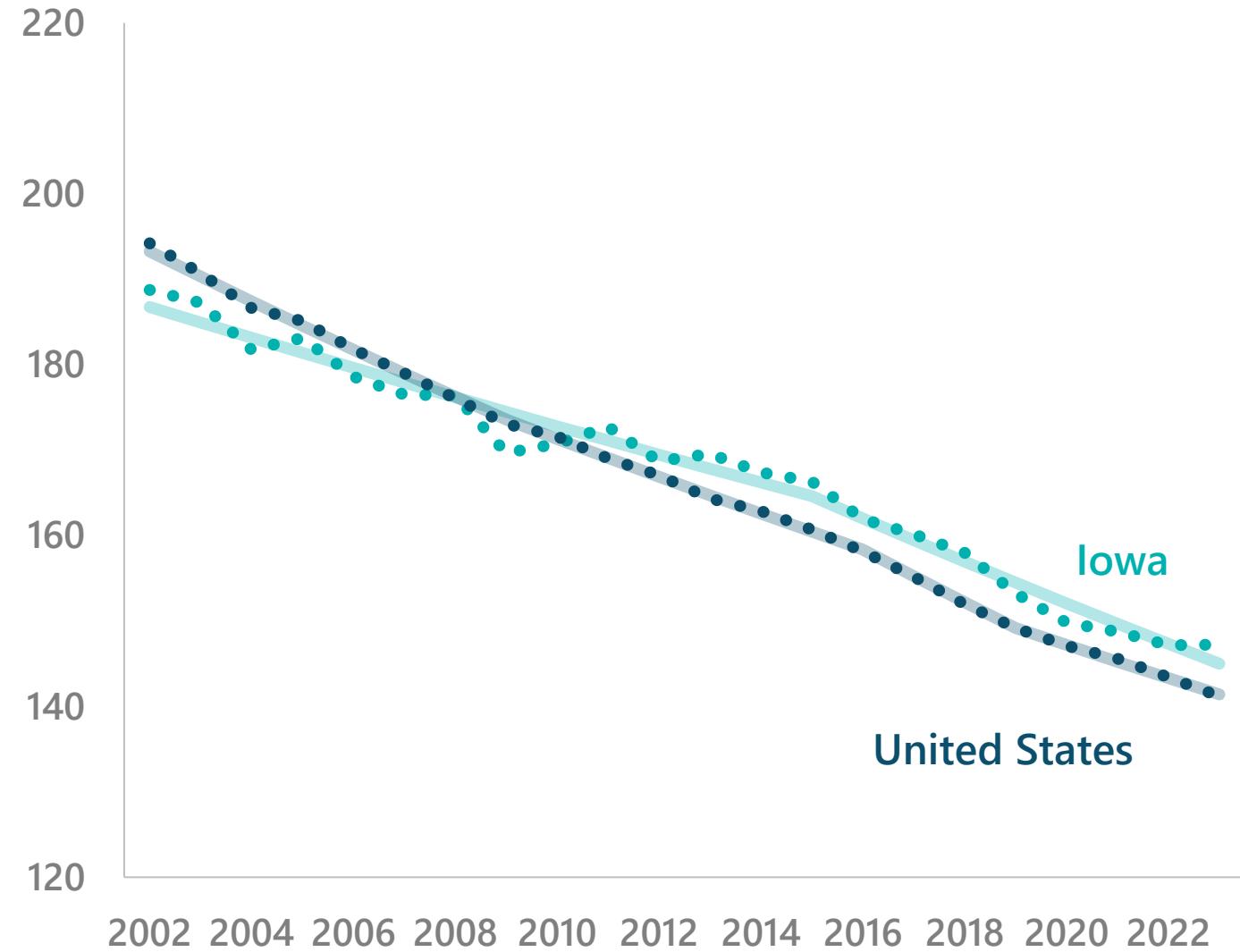
Iowa's rate is **14% higher** than the U.S. rate



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

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

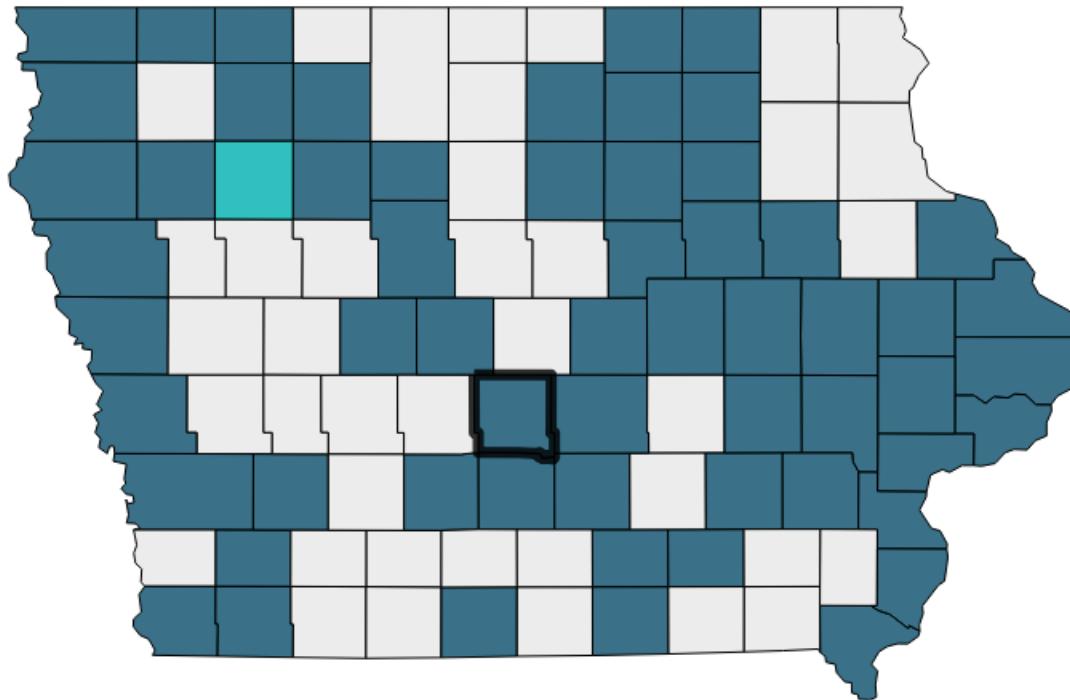
Rate of Cancer Deaths



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



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).

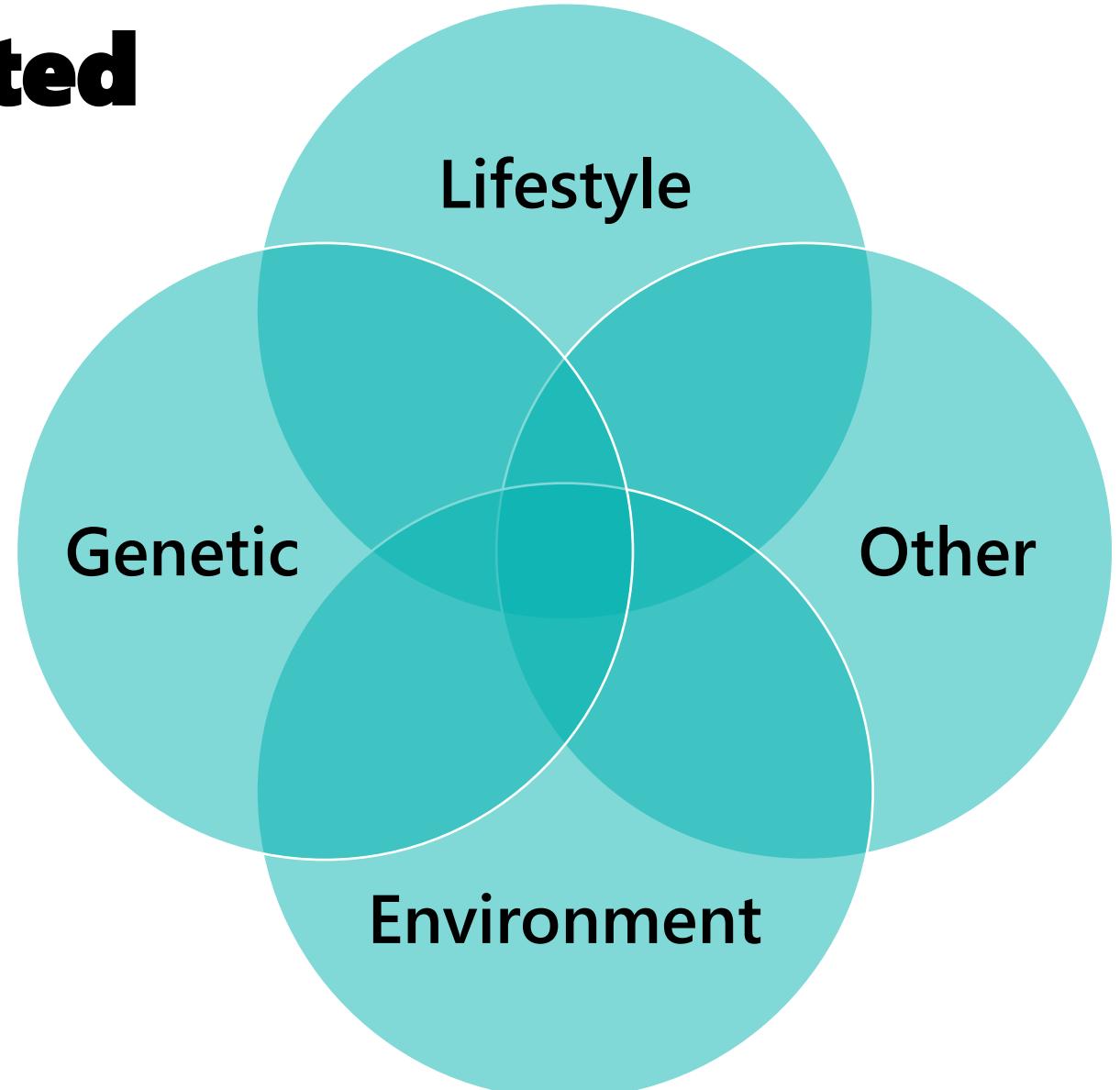
The contents of this presentation are solely the responsibility of the authors and do not necessarily represent the official views of CDC or the National Institutes of Health/National Cancer Institute.



Background on Cancer

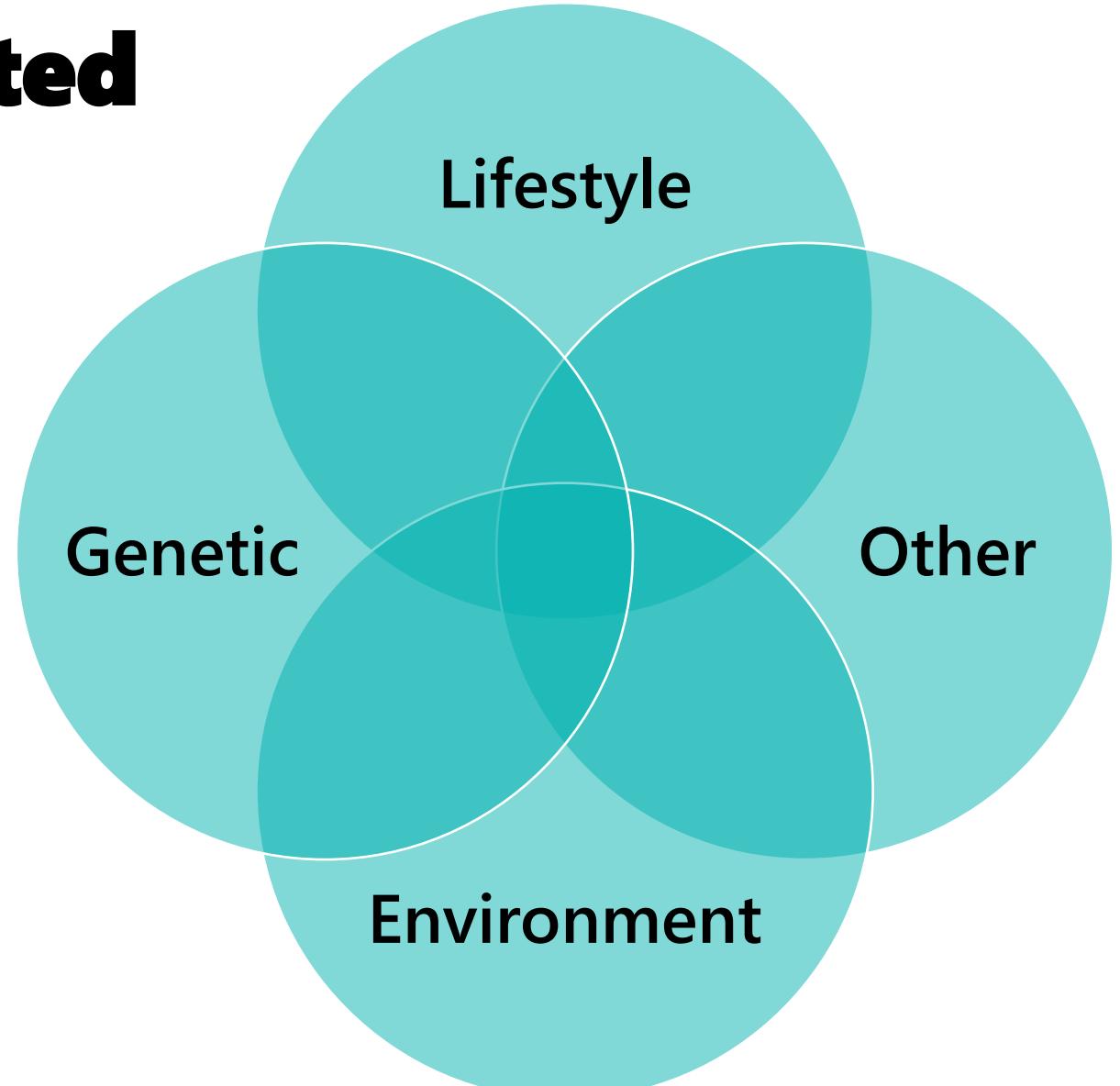
Cancer is Complicated

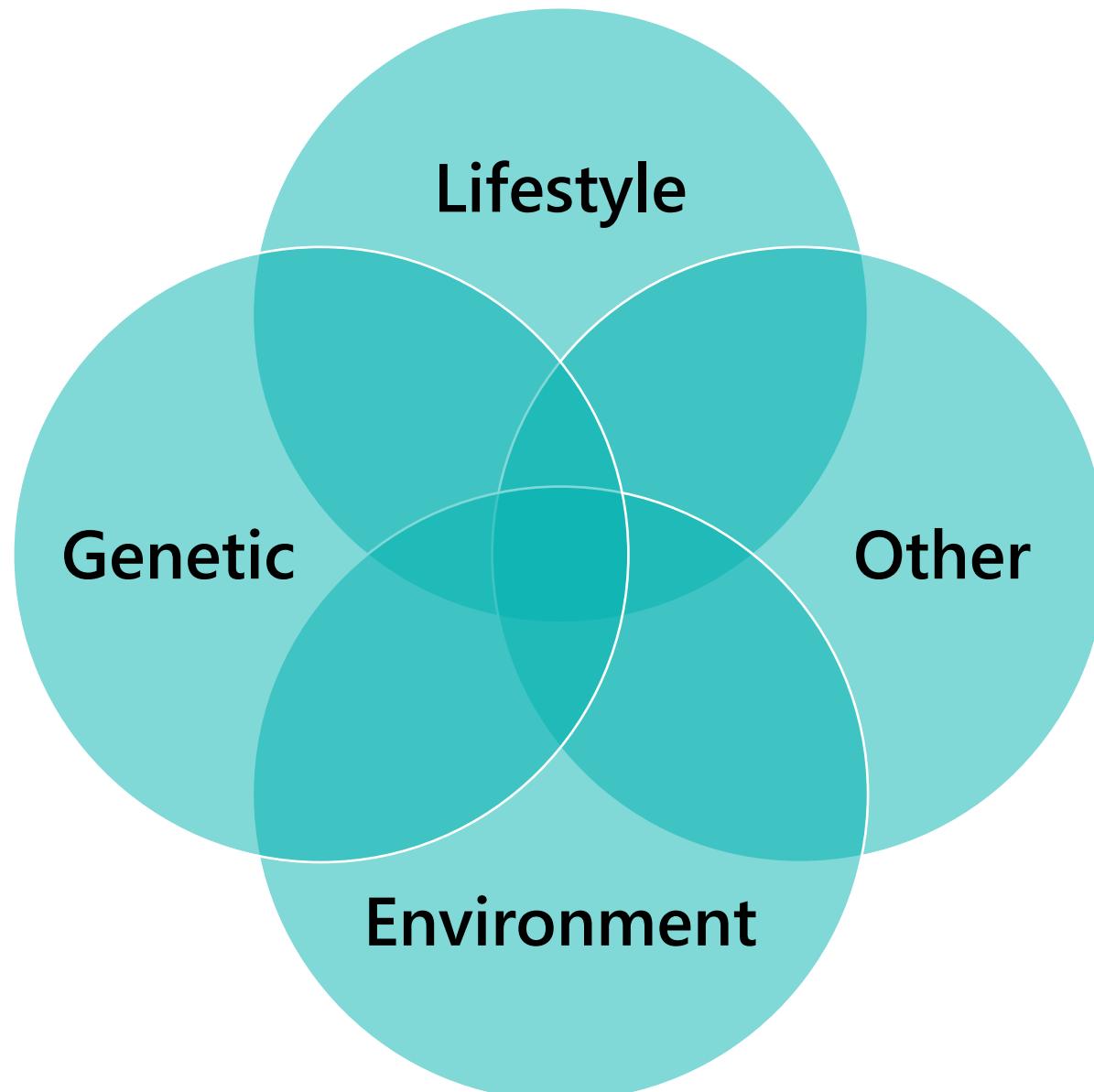
There is no one cause of cancer; it is a combination of different **genetic, lifestyle, and environmental** risk factors that change the function of cells



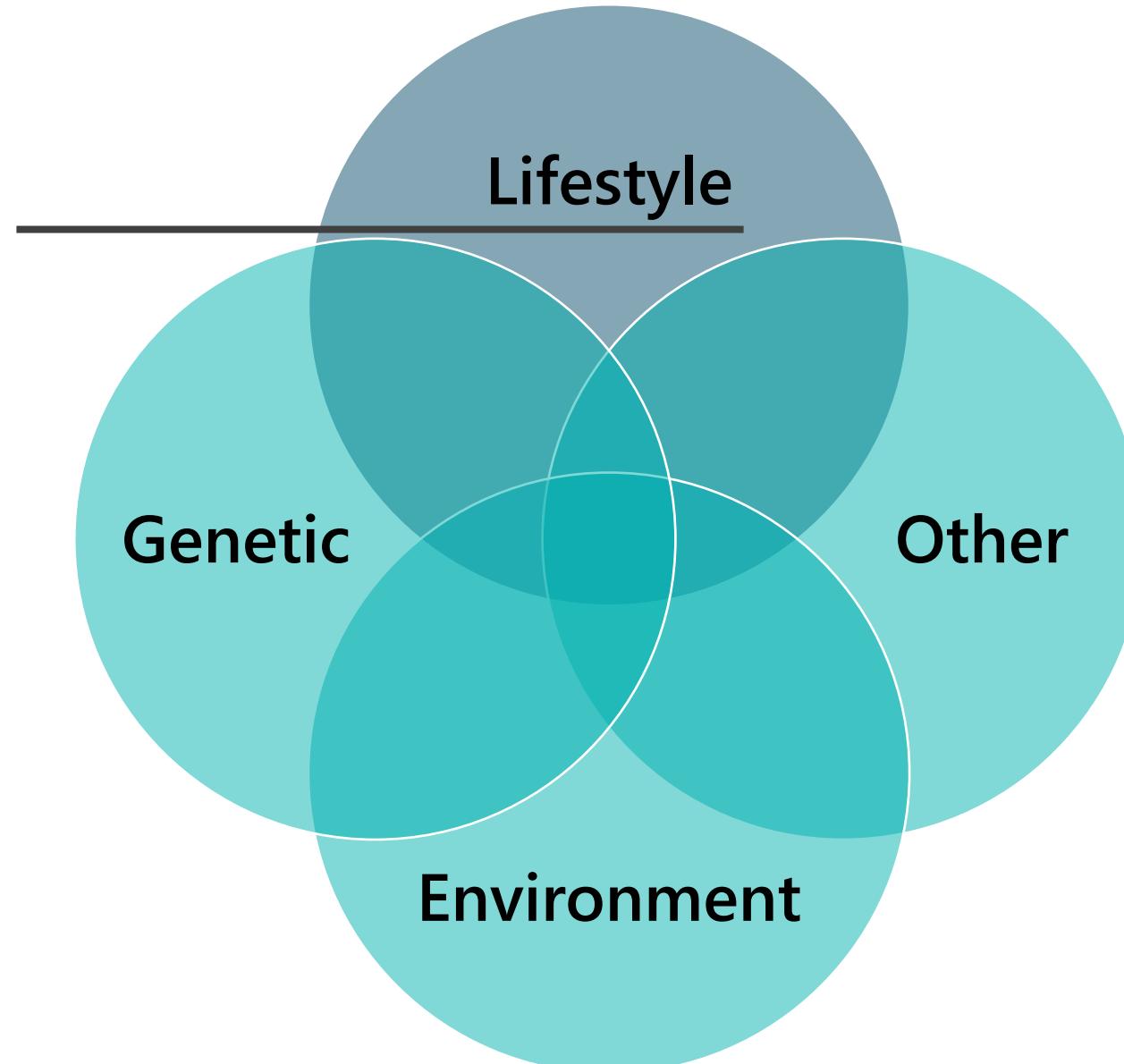
Cancer is Complicated

Risk factors are things that increase your chances of getting cancer

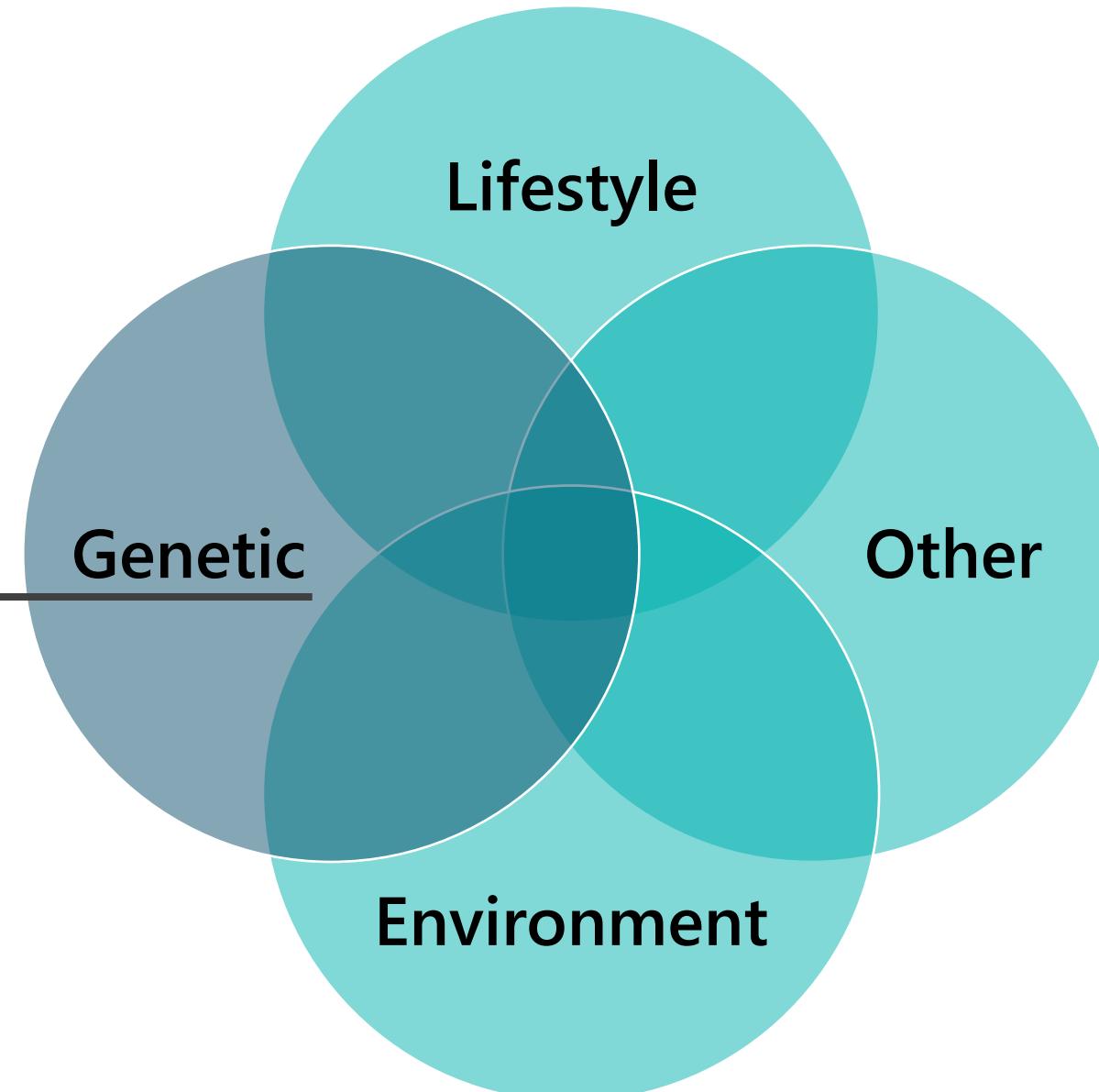


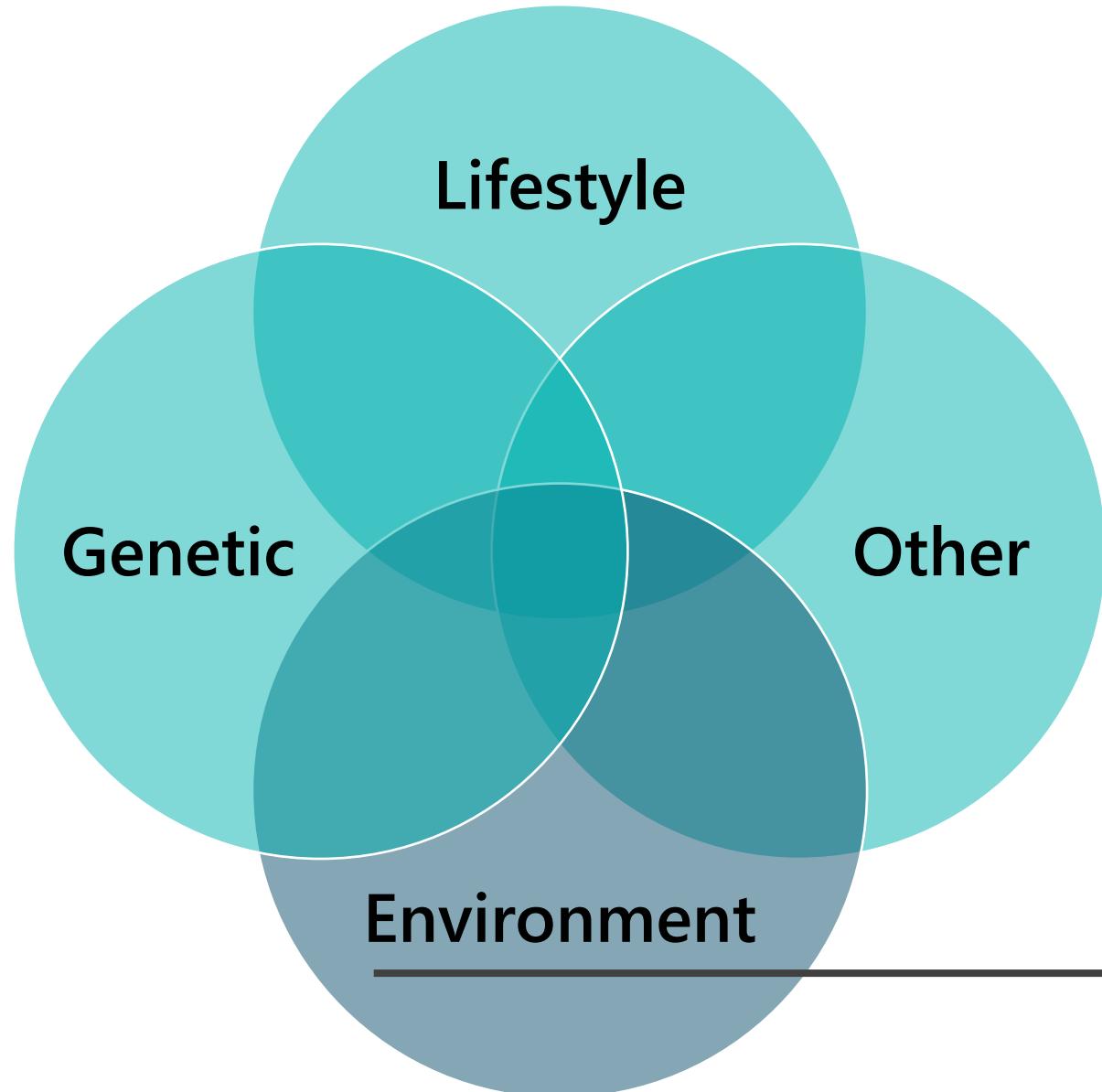


- Tobacco
- Alcohol
- Unhealthy diet
- Not being physically active
- Sunburns

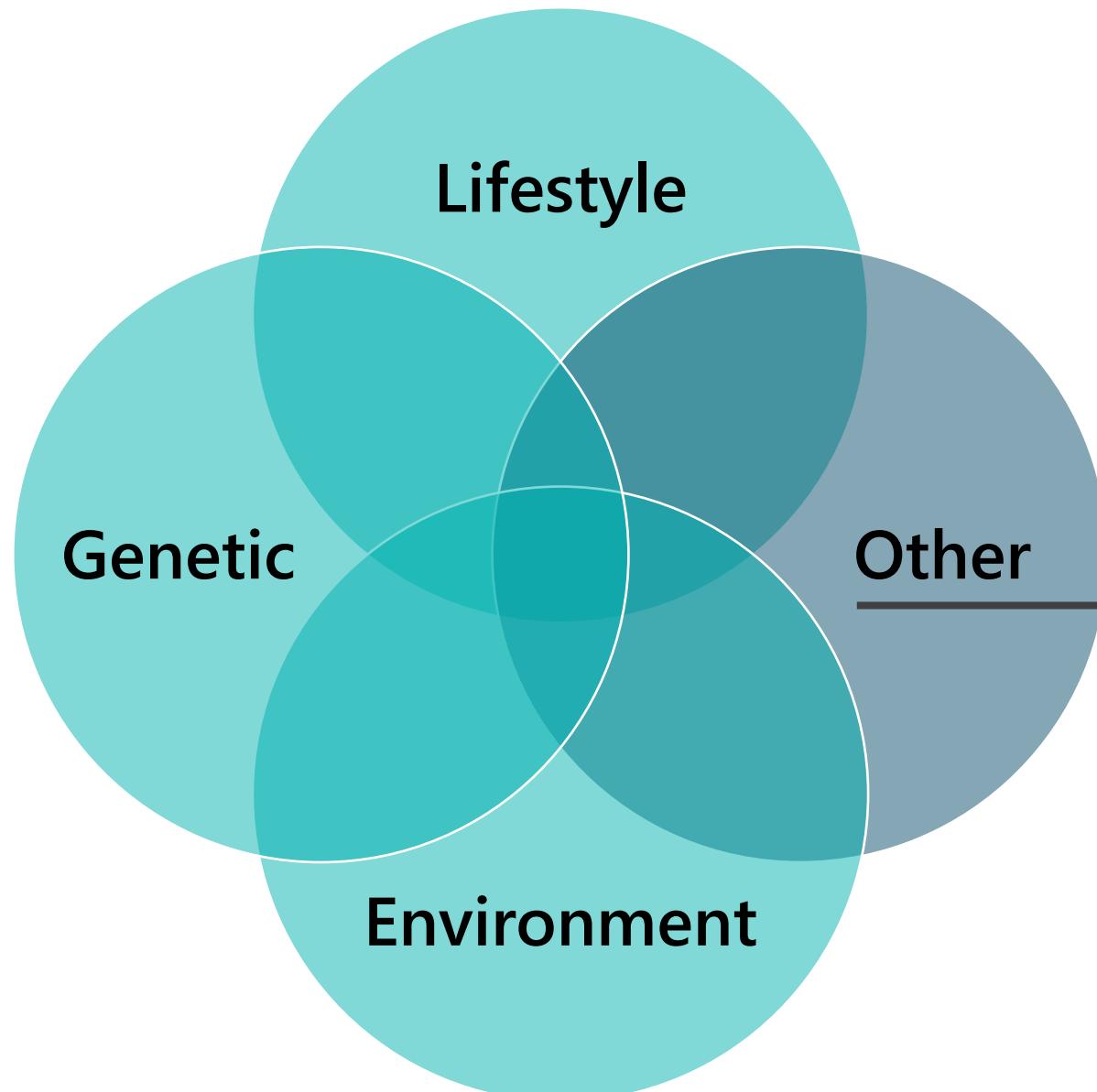


- Family history of cancer
- Random mutations





- Exposure to chemicals
- Radiation



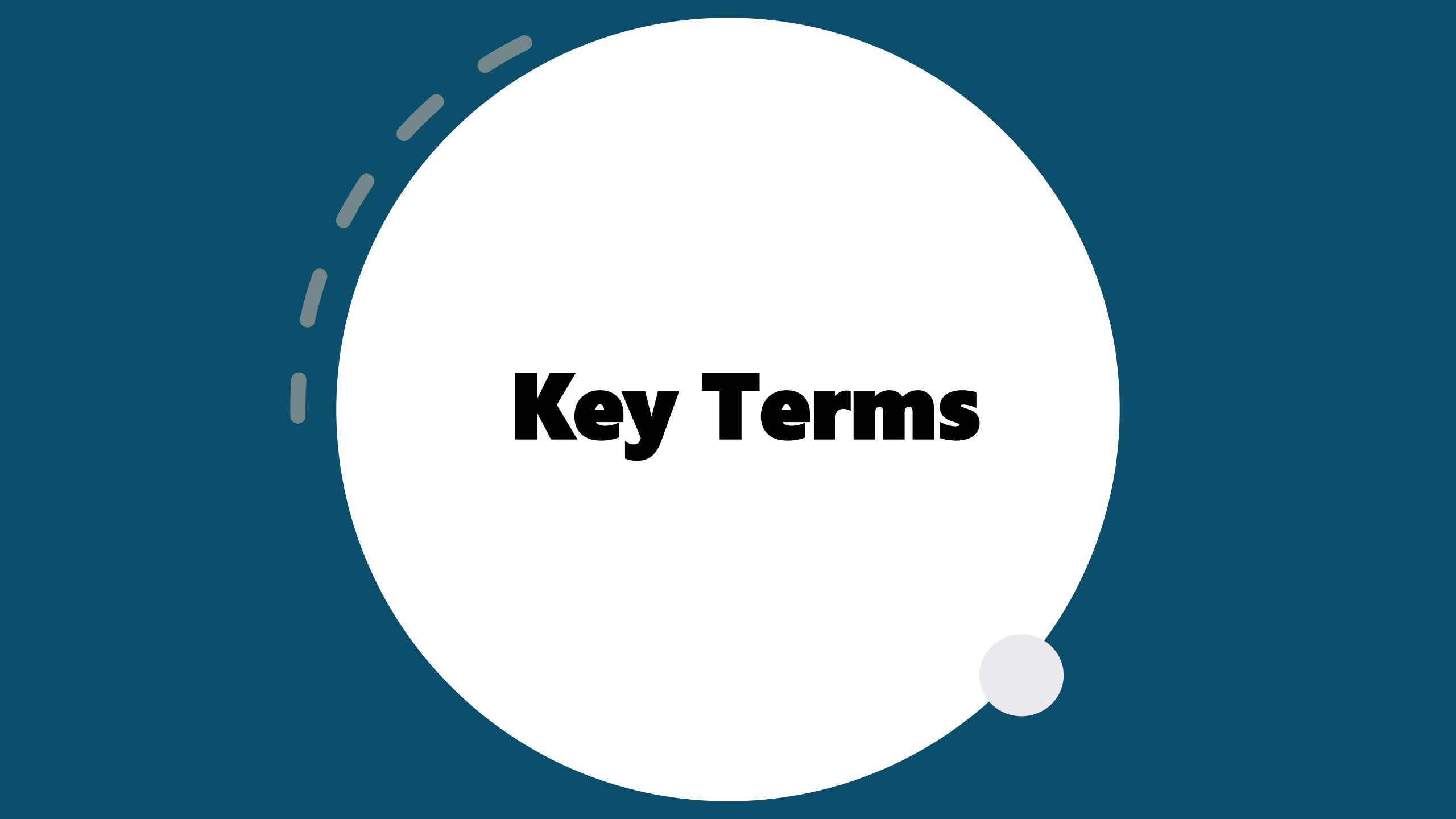
- **Aging**
- Viruses
(HPV, Hepatitis B)
- Medical
conditions
like chronic
inflammation

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**

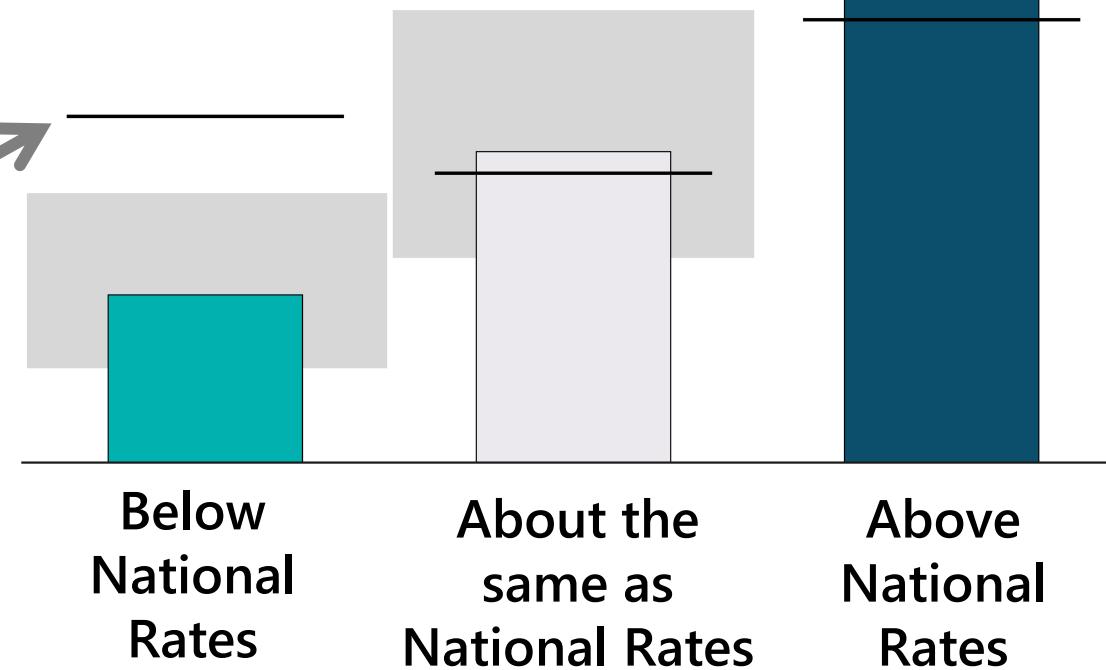
Stage definition used today

- 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

How to read the graphs

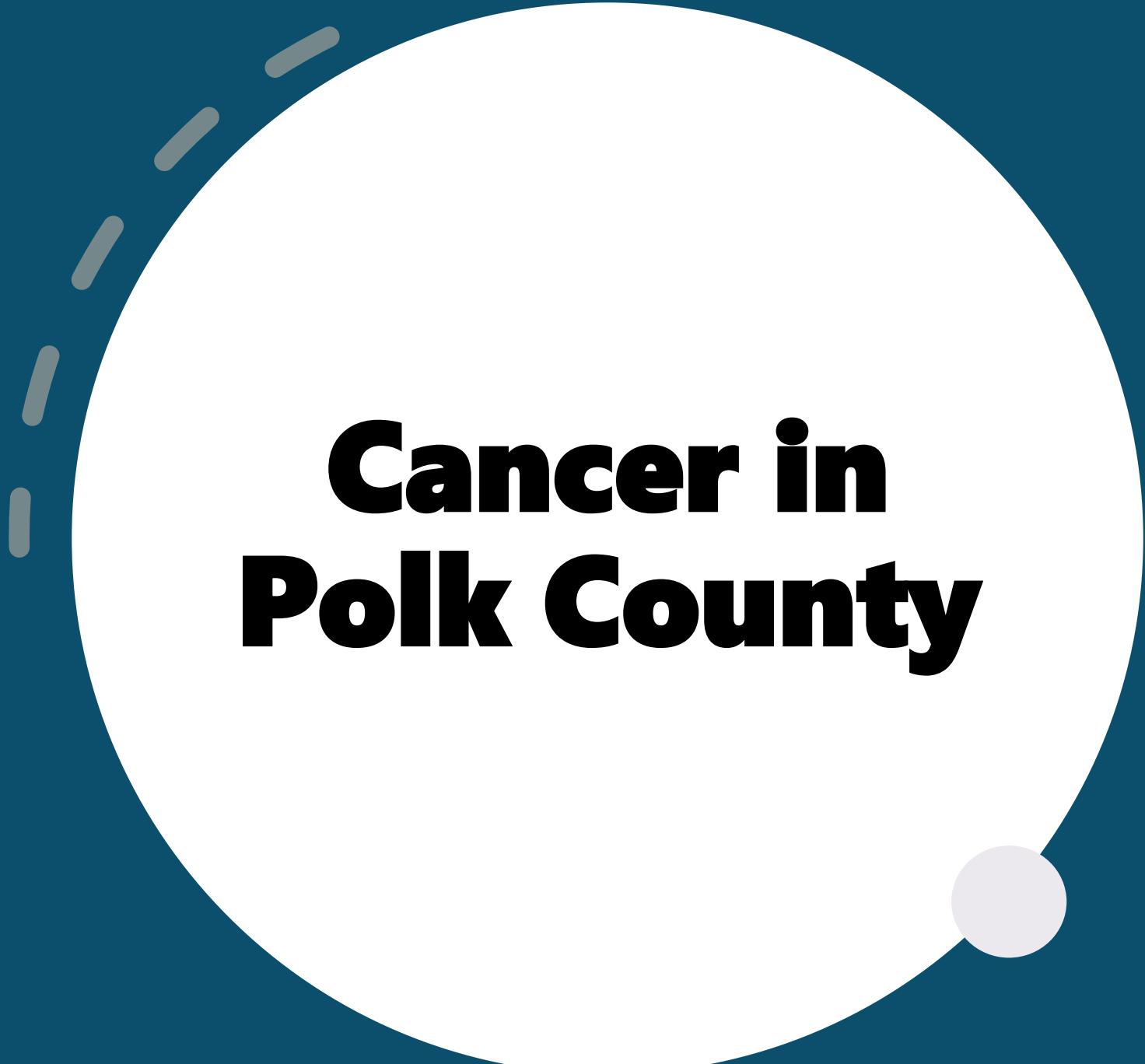
Unless otherwise stated,
bars are your county data

Black lines on
bar graphs
are United
States data



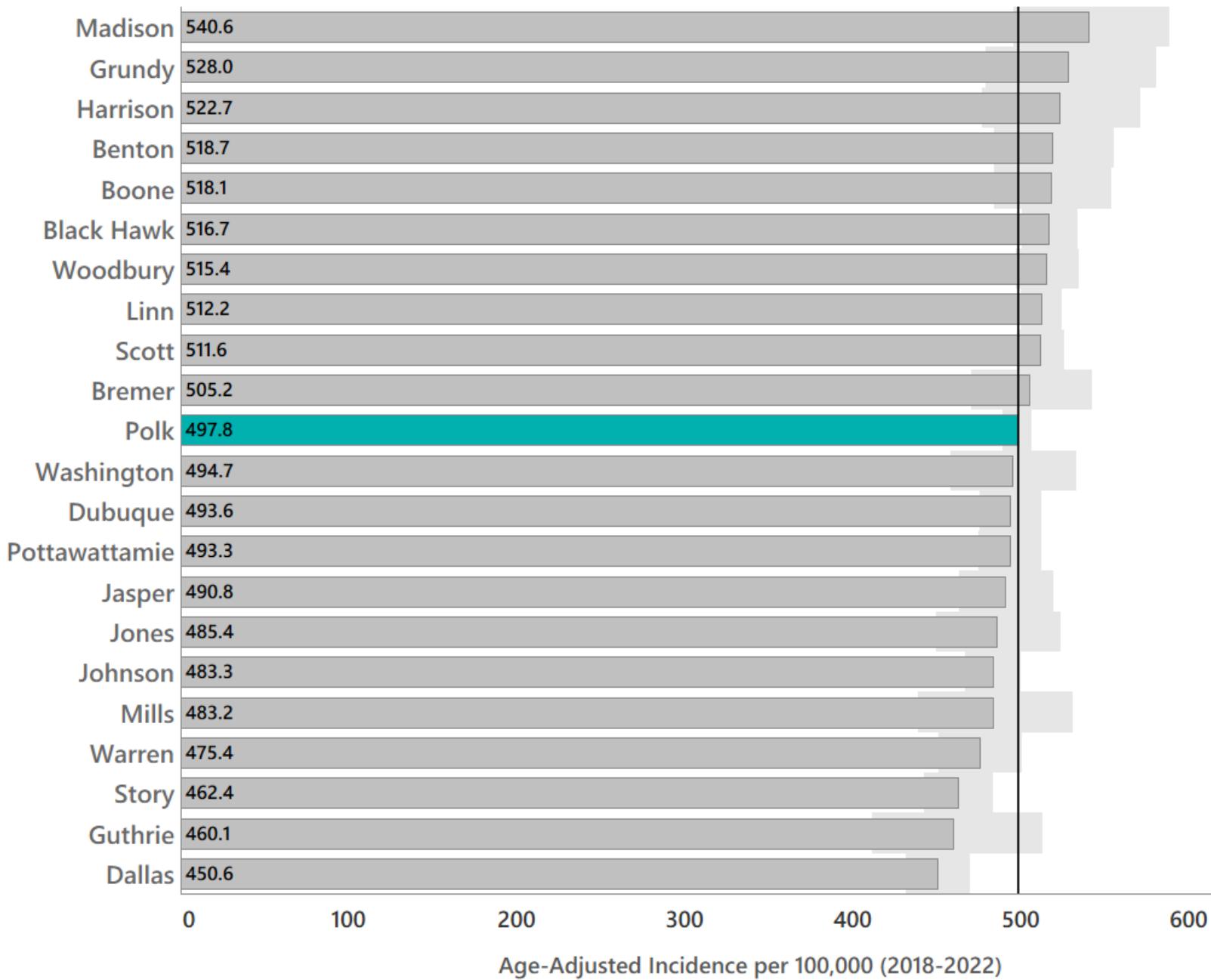
Grey boxes on
bar graphs are
95% Confidence
Intervals.

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



Cancer in Polk County

Compared to other
Iowa metro counties
Polk County ranks #11
of 22 for new cancers



New Cancers in Polk County

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

Each year, there are about

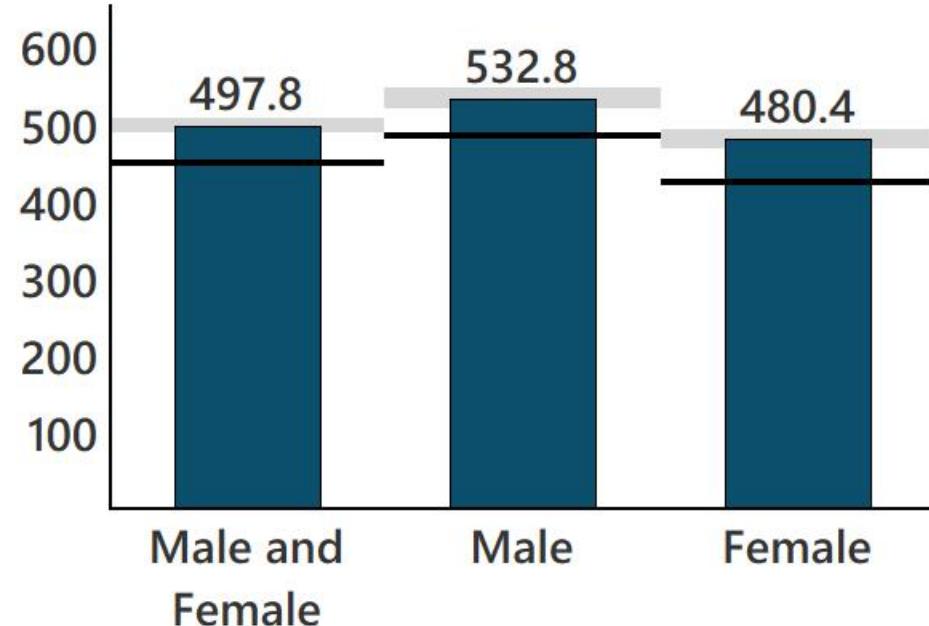
2601

new cancers diagnosed in
Polk County

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

Ranks #53 of 99 counties

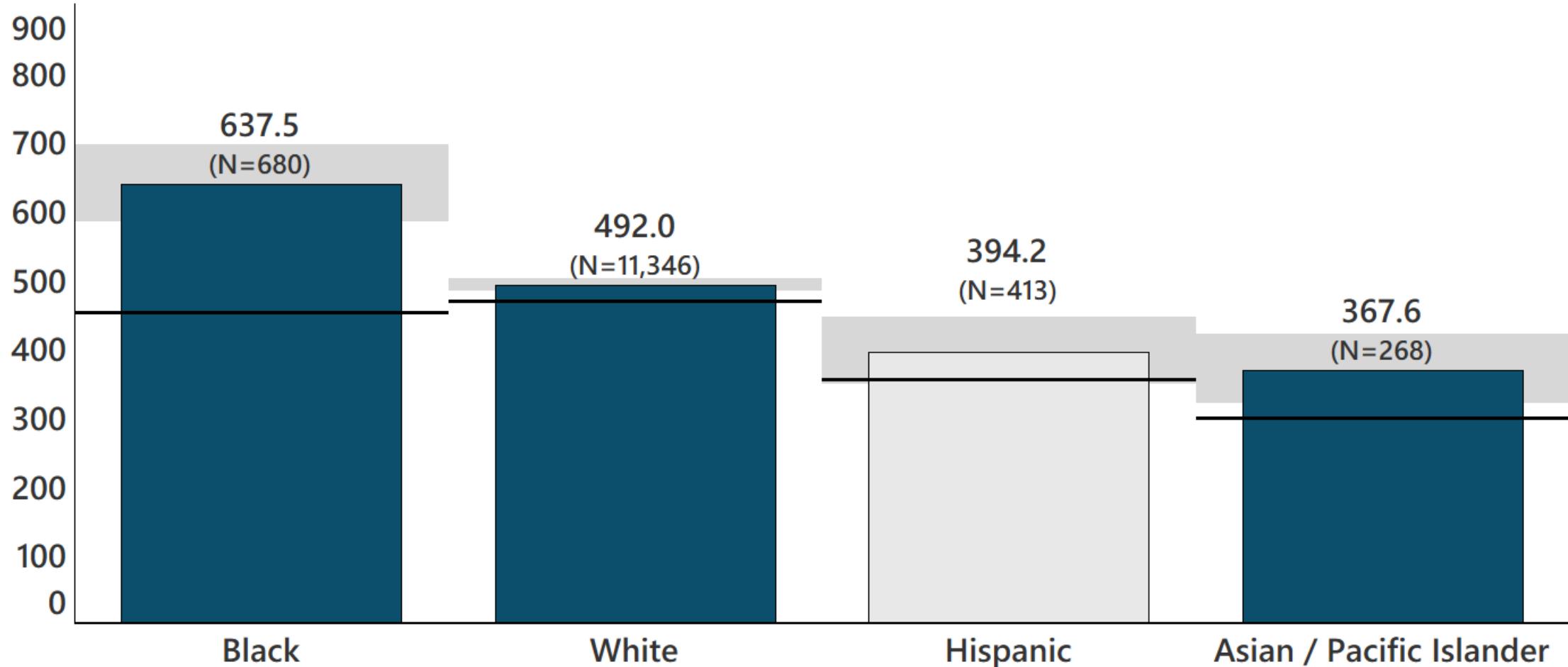
Cancer incidence rates are typically
higher in men than women



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

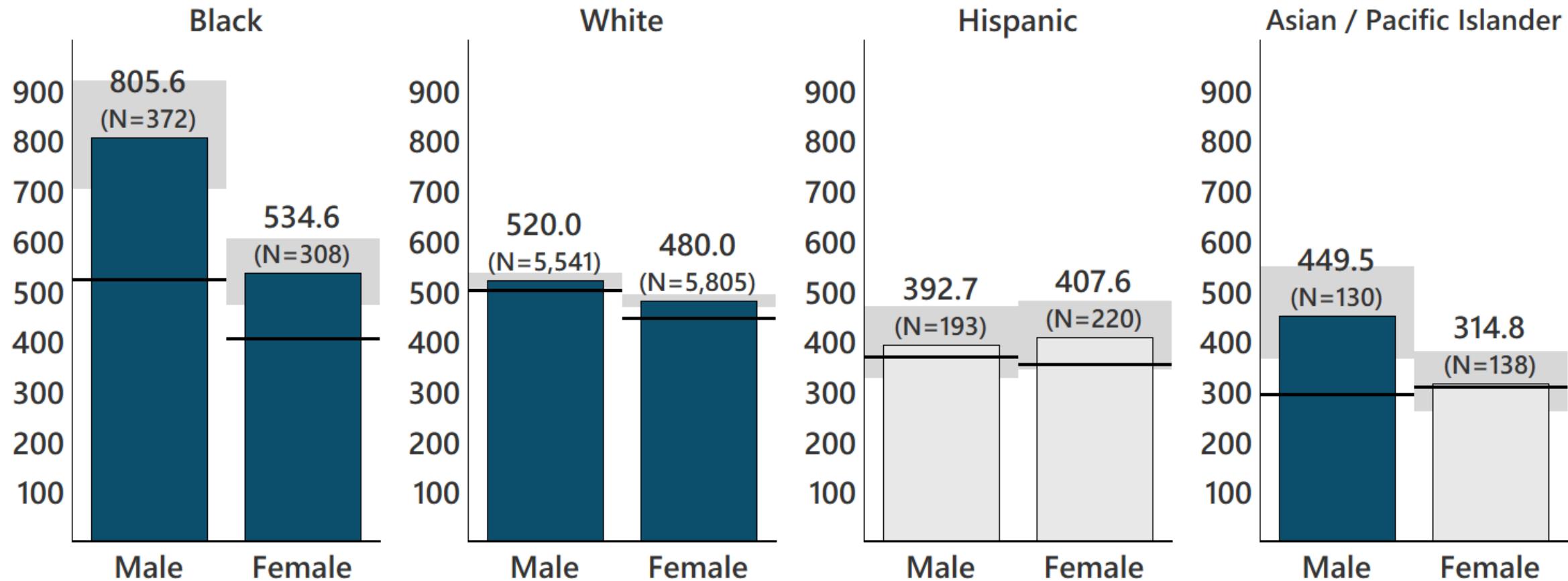
New Cancers in Polk County by Race/Ethnicity

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



New Cancers in Polk County by Race/Ethnicity and Sex

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



Cancer deaths in Polk County

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

Each year, there are about

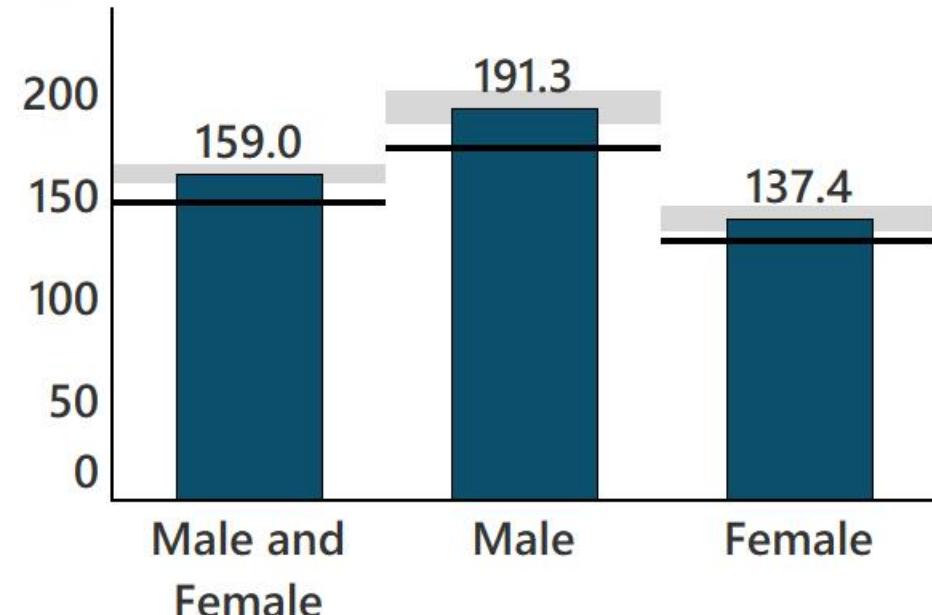
827

cancer deaths in Polk County

Cancer mortality rates in Polk County are
higher than the U.S. average

Ranks #37 of 99 counties

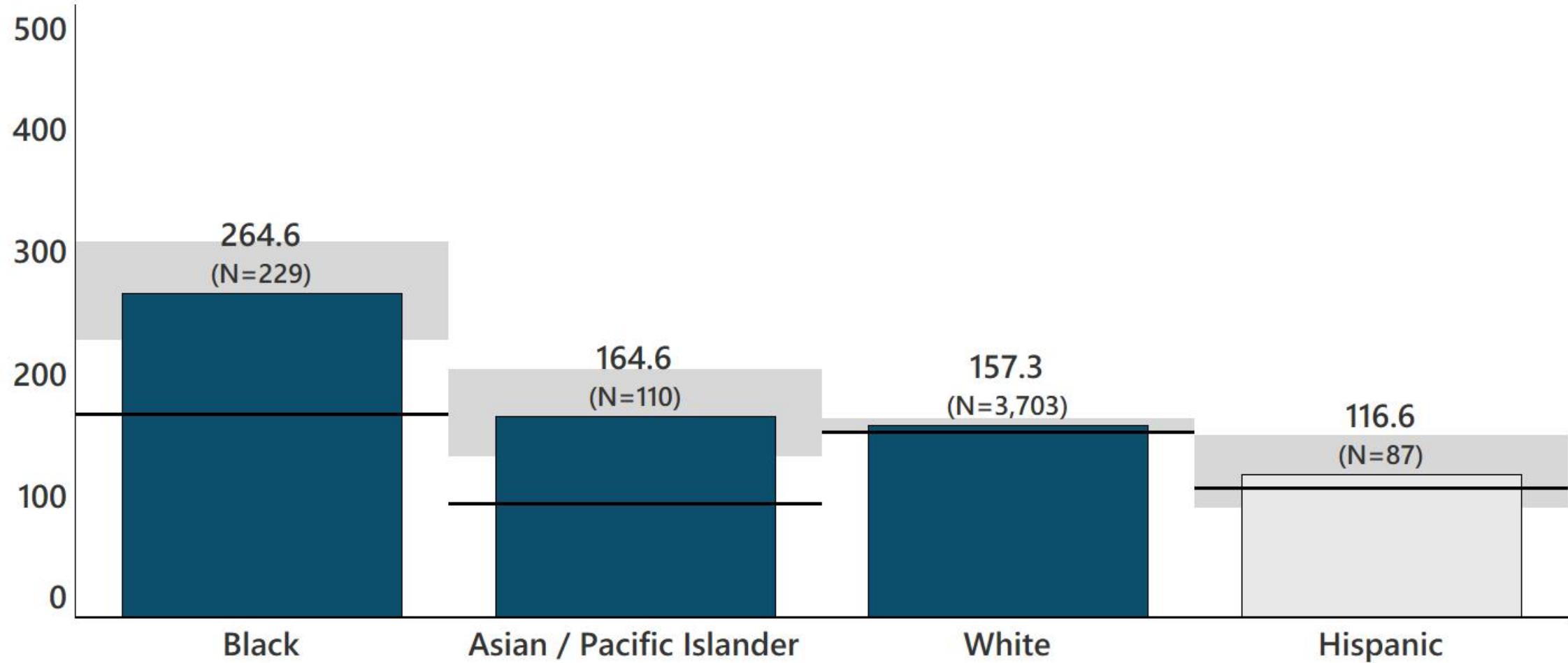
Cancer mortality rates are typically
higher in men than women



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

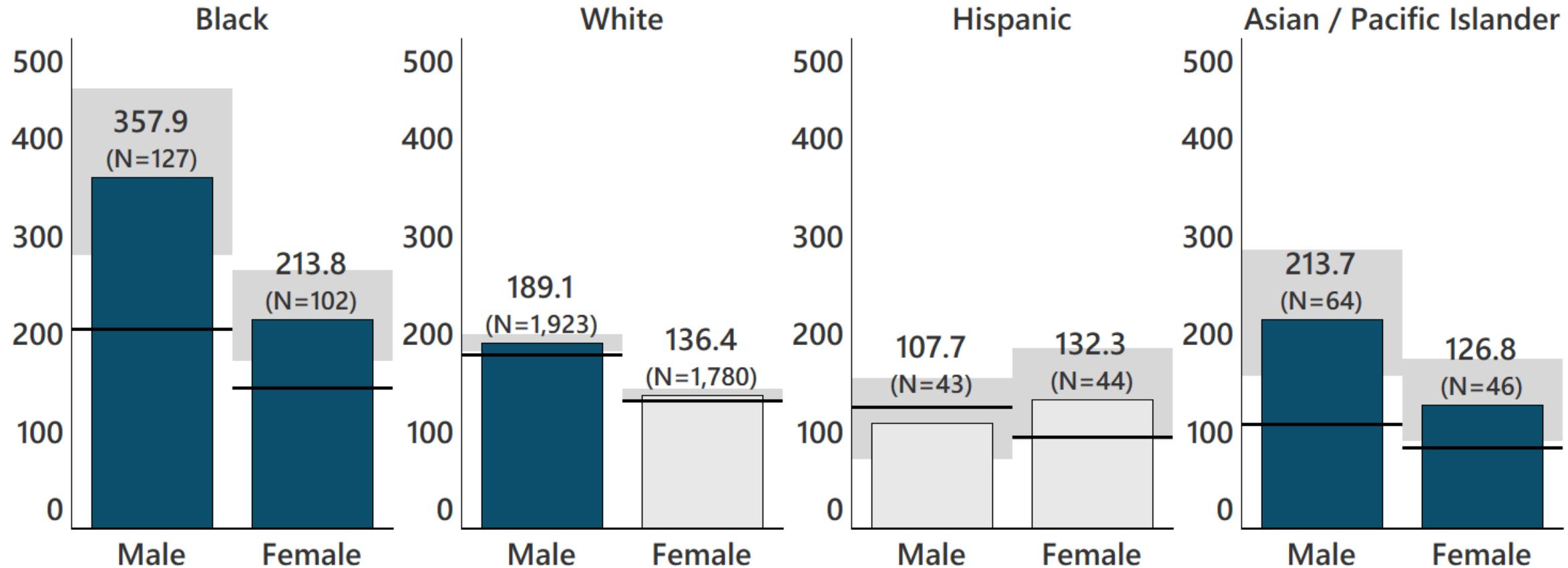
Cancer Deaths in Polk County by Race/Ethnicity

Age-Adjusted Mortality per 100,000 (2019-2023)



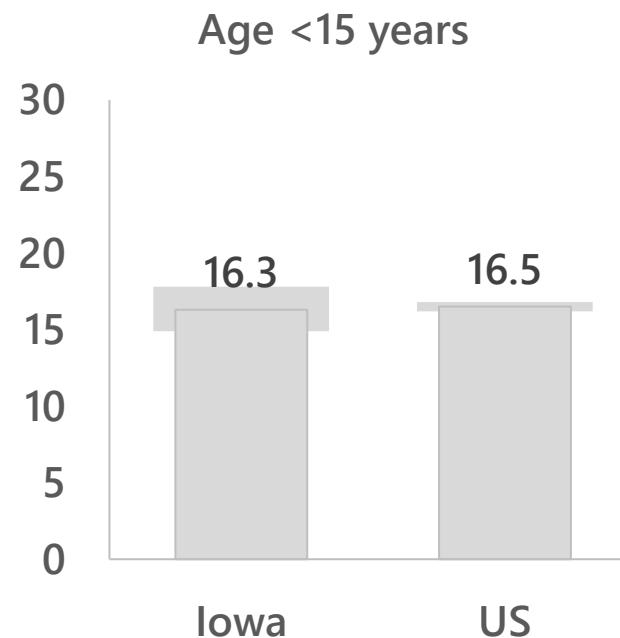
Cancer Deaths in Polk County by Race/Ethnicity and Sex

Age-Adjusted Mortality per 100,000 (2019-2023)

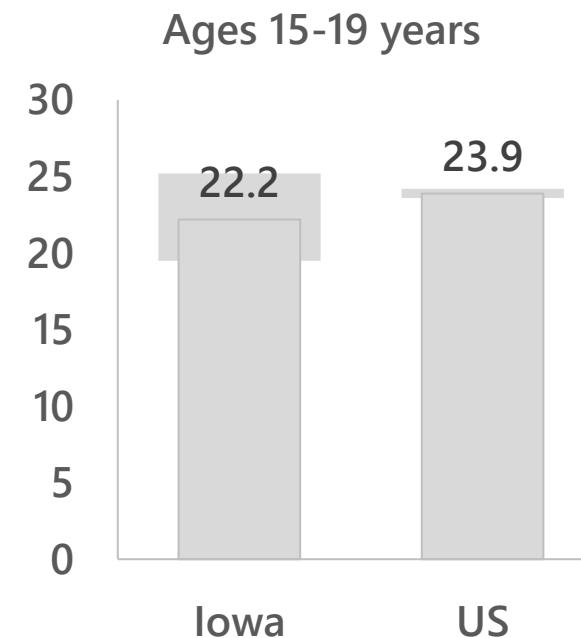


Pediatric, Adolescent, and Young Adult New Cancers in Iowa

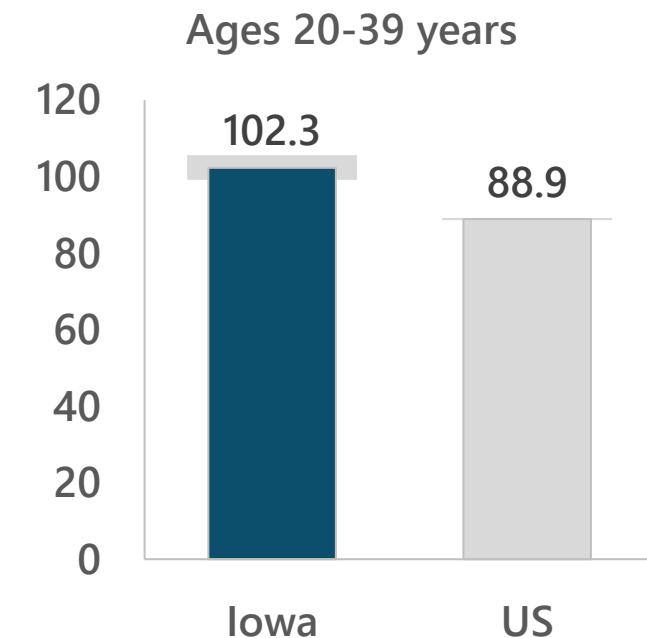
Pediatric cancer incidence rates in Iowa are **not different** than the U.S. rate



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

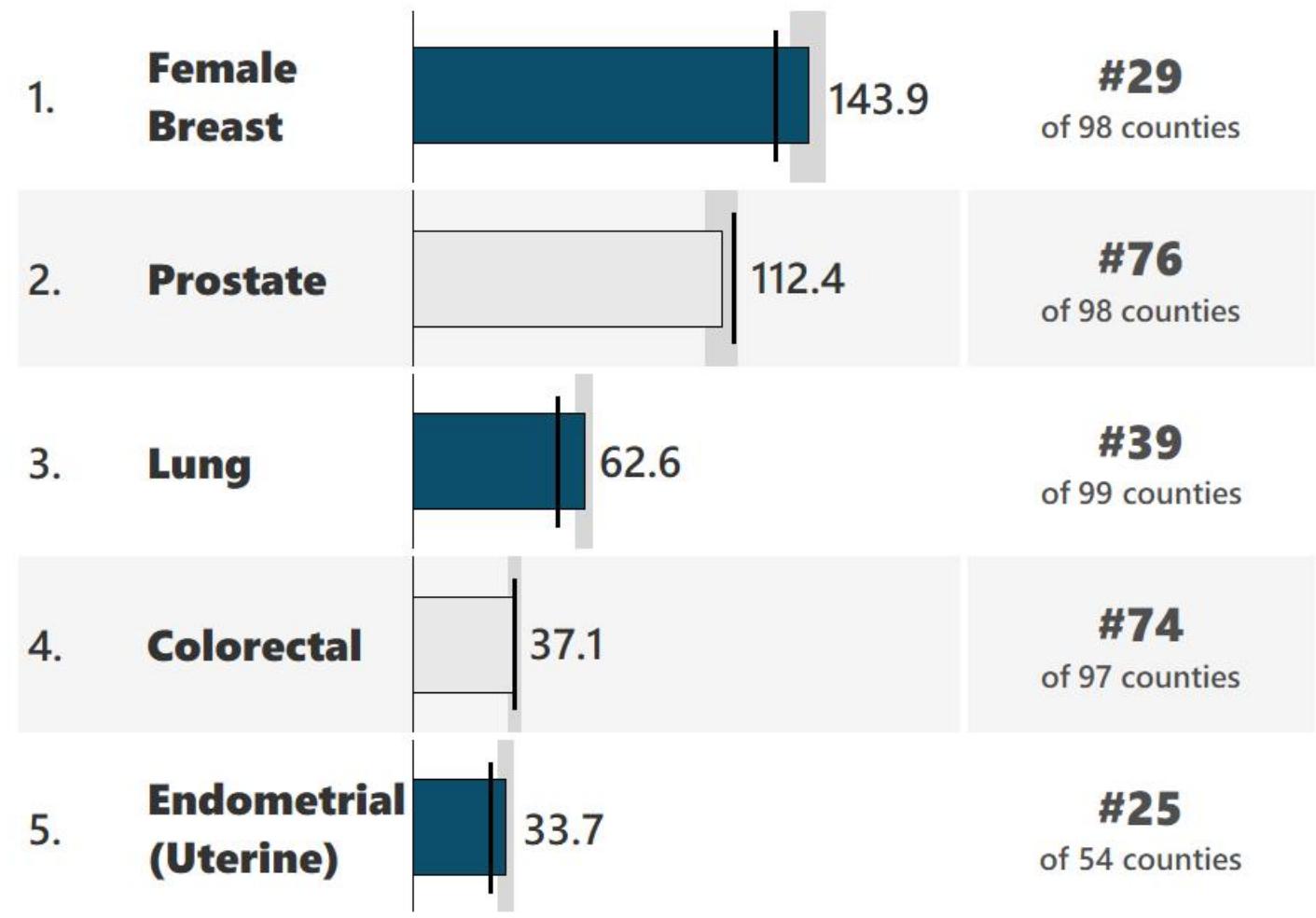


Young Adult cancer incidence rates in Iowa **are higher** than the U.S. rate



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

Top cancers in Polk County



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

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

1 | Female Breast

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

394

New Cases per year

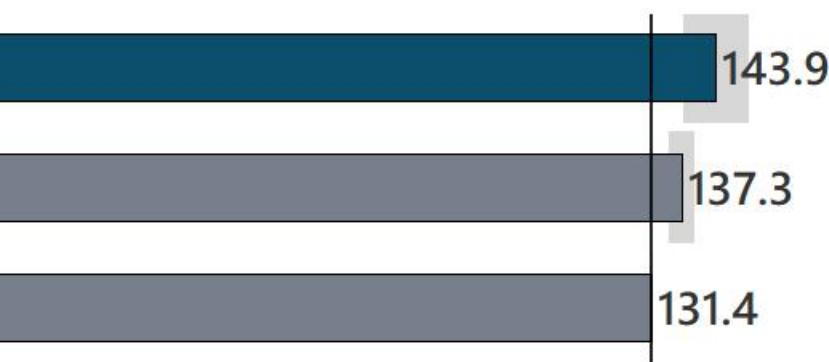
54

Deaths per year

Polk County

Statewide

United States



Polk County

Statewide

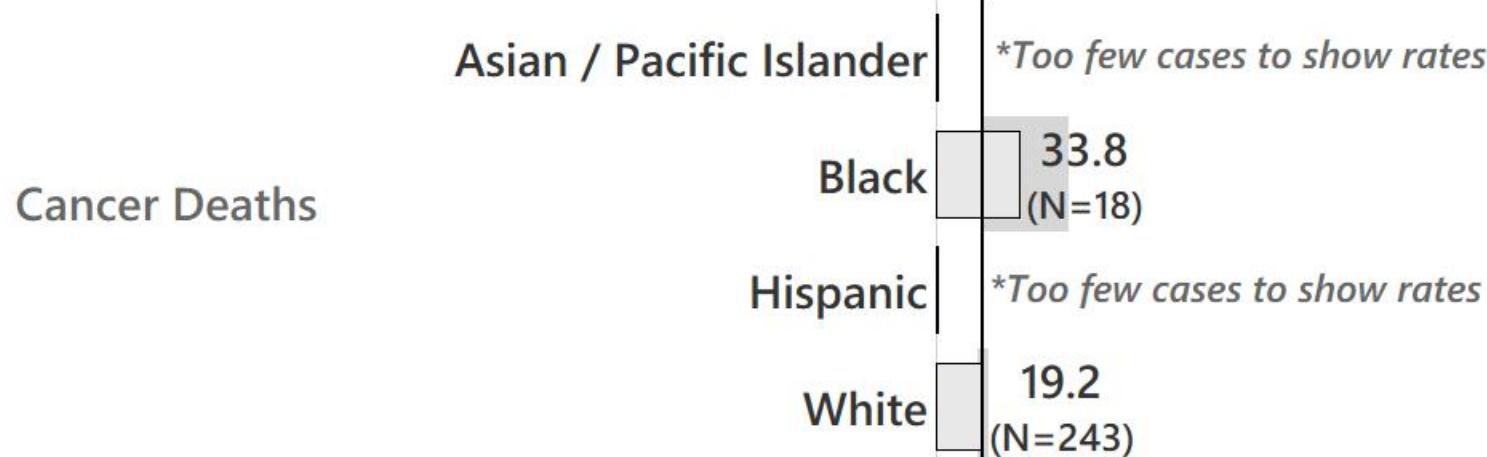
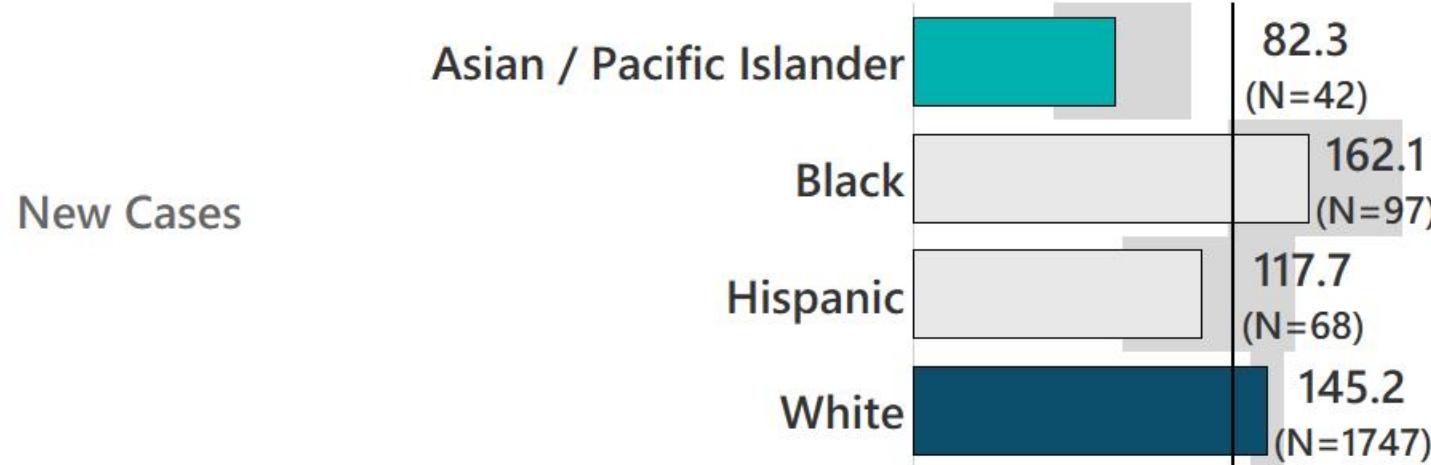
United States



Age-Adjusted Rate per 100,000

Incidence (2018-2022); Mortality (2019-2023)

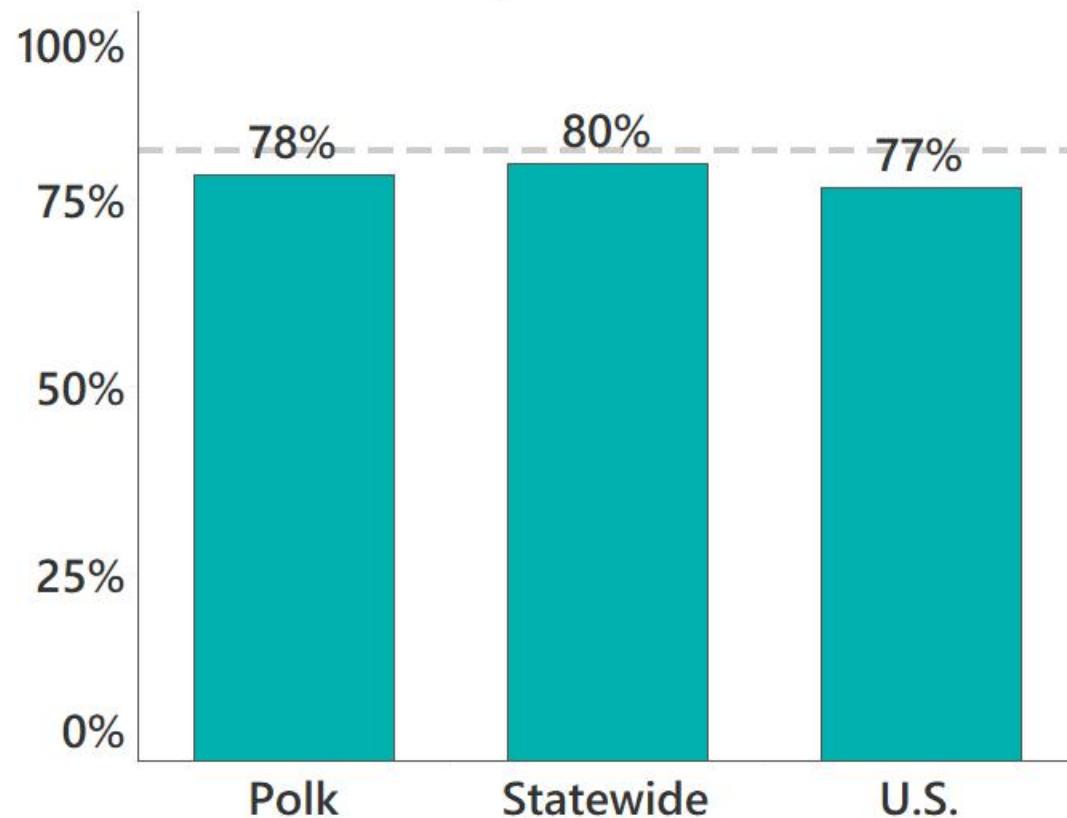
Breast Cancer by Race/Ethnicity in Polk County



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

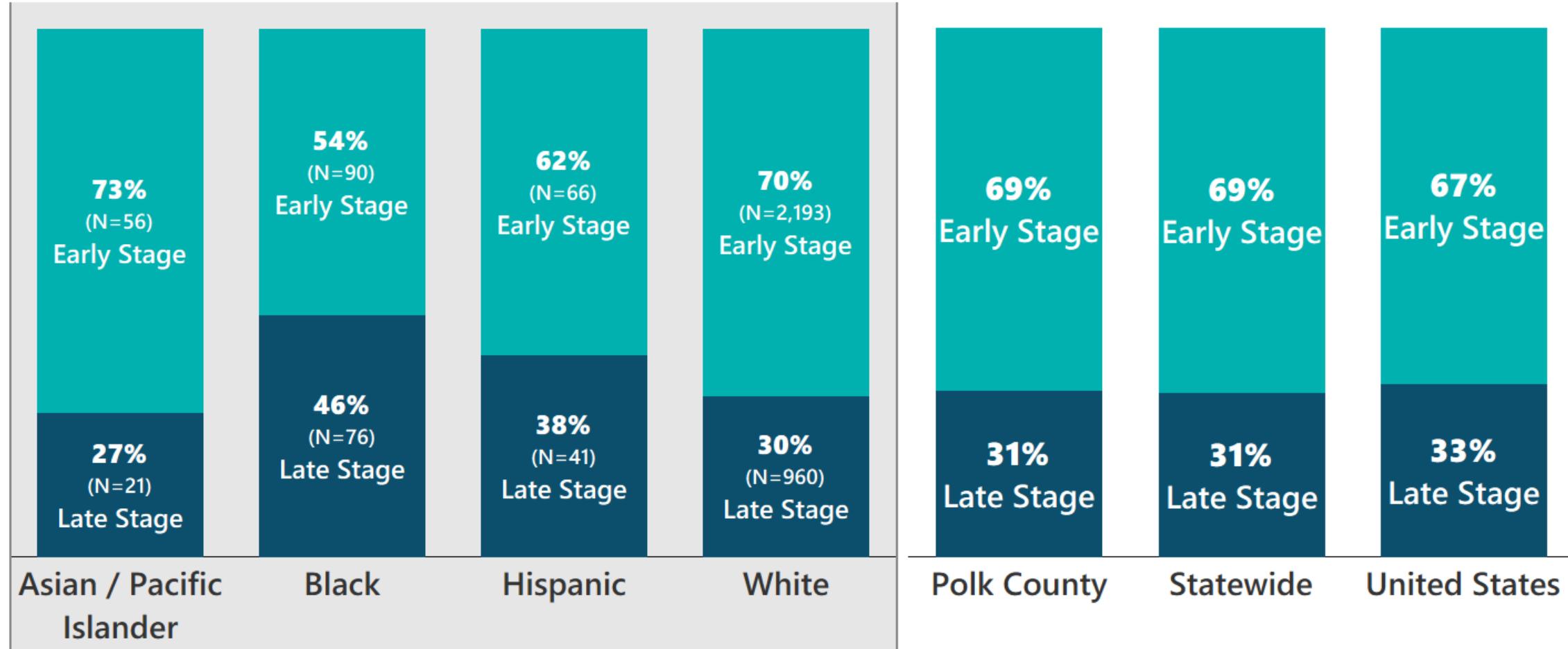
Talk to your doctor if you have a family history of breast cancer

(U.S. Preventative Services Task Force)

Data from 2022 survey

Iowa Cancer Plan Goal: 81.4% by 2027

Breast Cancer by Race/Ethnicity & Stage at Diagnosis in Polk County



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

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

291

New Cases per year

41

Deaths per year

Polk County

Statewide

United States

112.4

129.5

116.5

Polk County

Statewide

United States

20.9

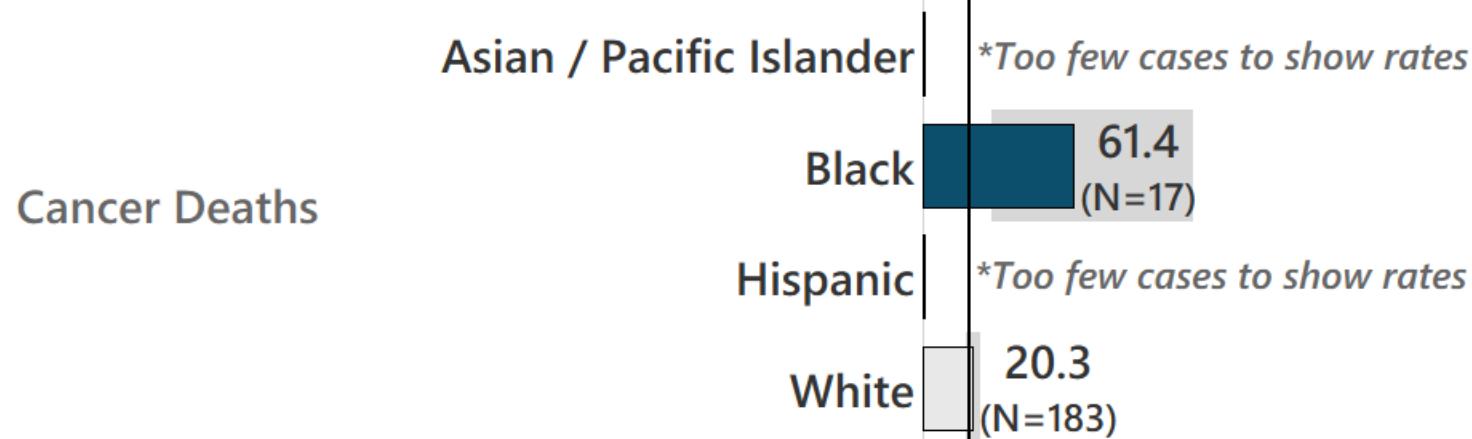
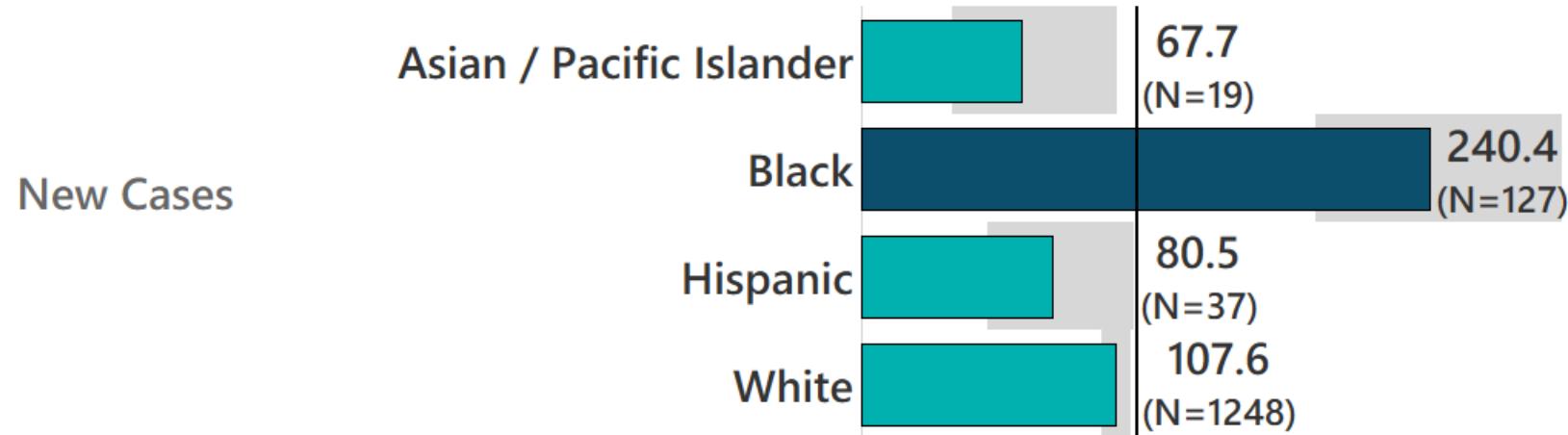
19.6

19.2

Age-Adjusted Rate per 100,000

Incidence (2018-2022); Mortality (2019-2023)

Prostate Cancer by Race/Ethnicity in Polk County



Prostate Cancer Screening Guidelines

Screening test is a Prostate-specific antigen (PSA) blood test

U.S. Preventive Services Task Force

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

<https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prostate-cancer-screening>

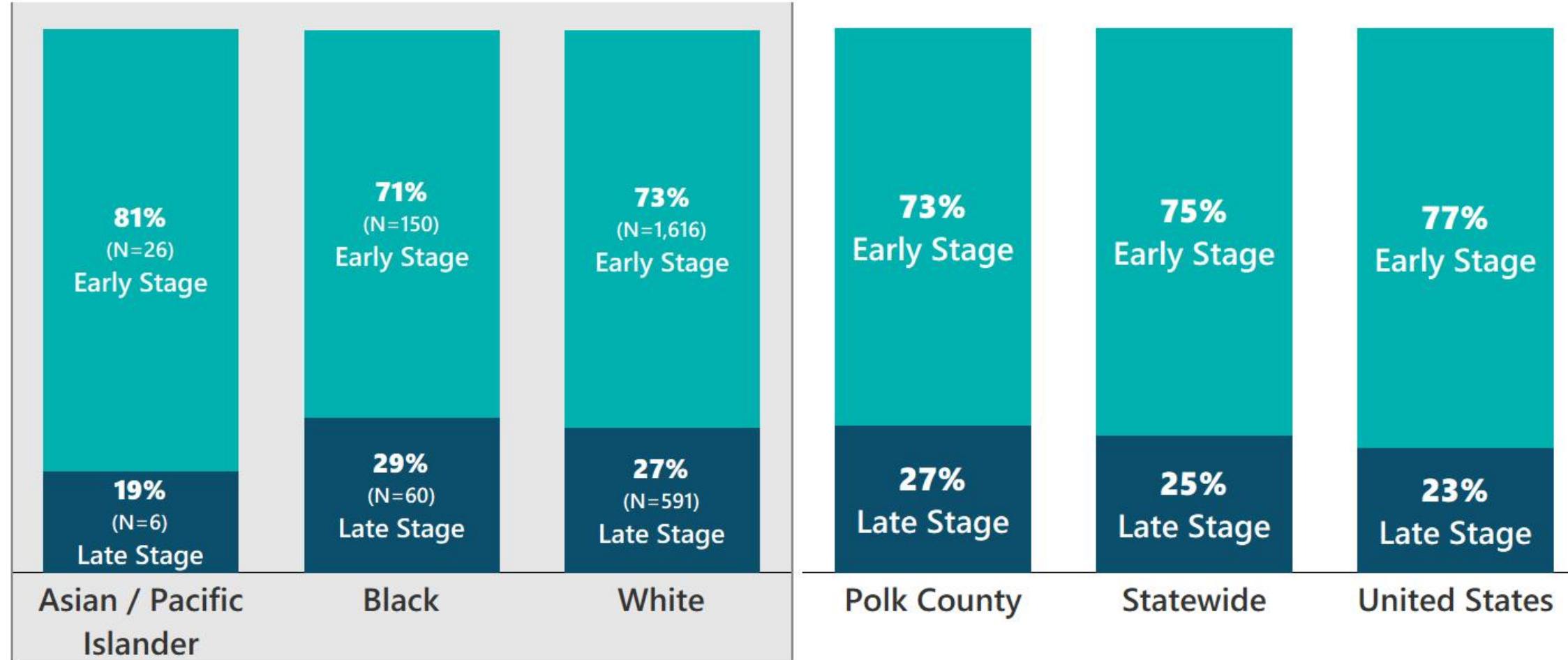
American Cancer Society

The [American Cancer Society](#) recommends that men have a chance to make an informed decision with their health care provider about whether to be screened for prostate cancer.

The discussion about screening should take place at:

- **Age 45 for men at high risk** of developing prostate cancer. This includes [African American men](#) and men who have a first-degree relative (father or brother) diagnosed with prostate cancer at an early age (younger than age 65).
- **Age 50 for men who are at average risk** of prostate cancer and are expected to live at least 10 more years
- **Age 40 for men at even higher risk** (those with more than one first-degree relative who had prostate cancer at an early age)

Prostate Cancer by Race/Ethnicity & Stage at Diagnosis in Polk County



3 | Lung

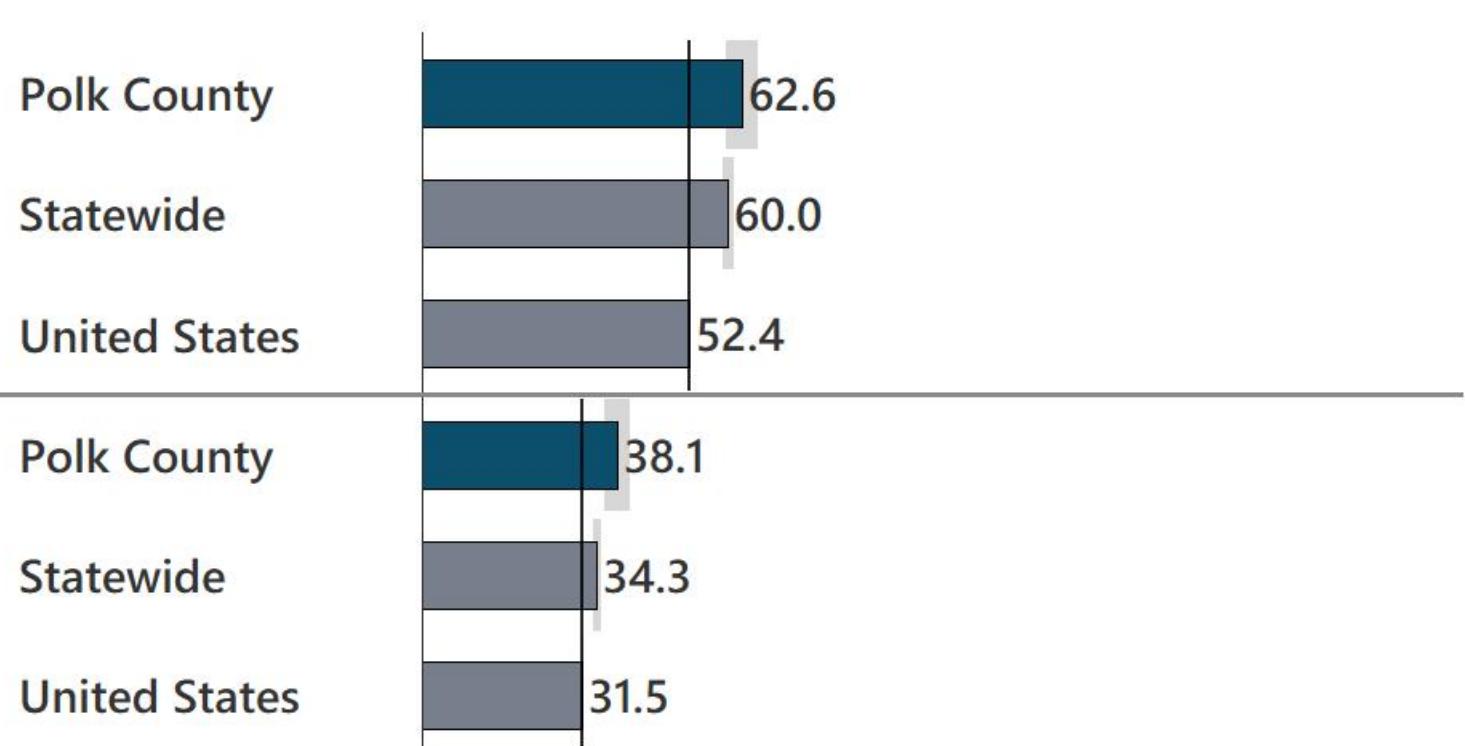
Each year in Polk County,
there are about...

330

New Cases per year

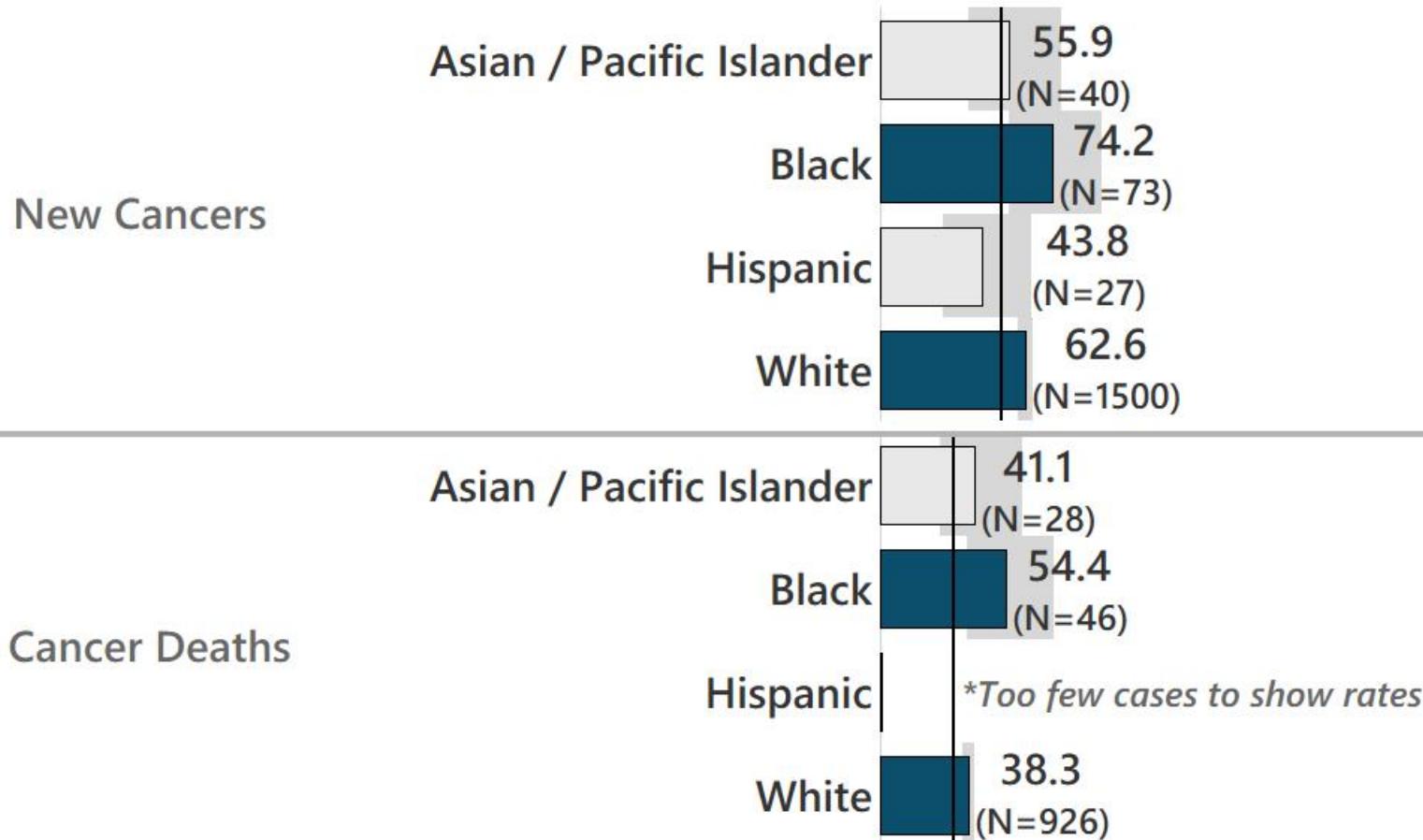
202

Deaths per year

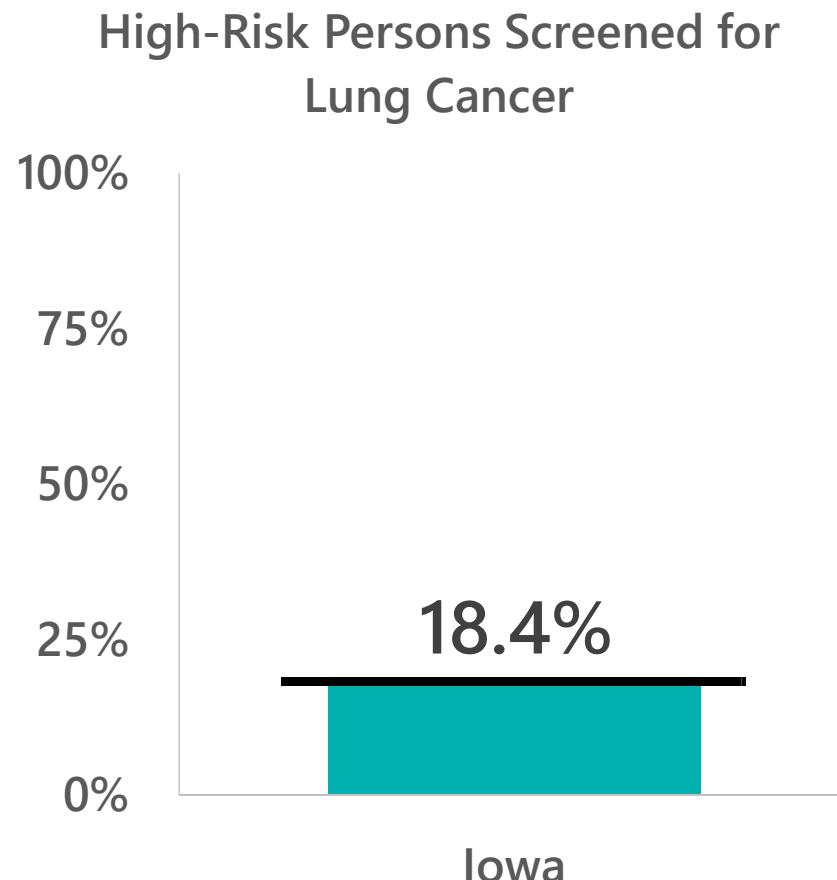


Age-Adjusted Rate per 100,000
Incidence (2018-2022); Mortality (2019-2023)

Lung Cancer by Race/Ethnicity in Polk County



Lung Cancer Screening



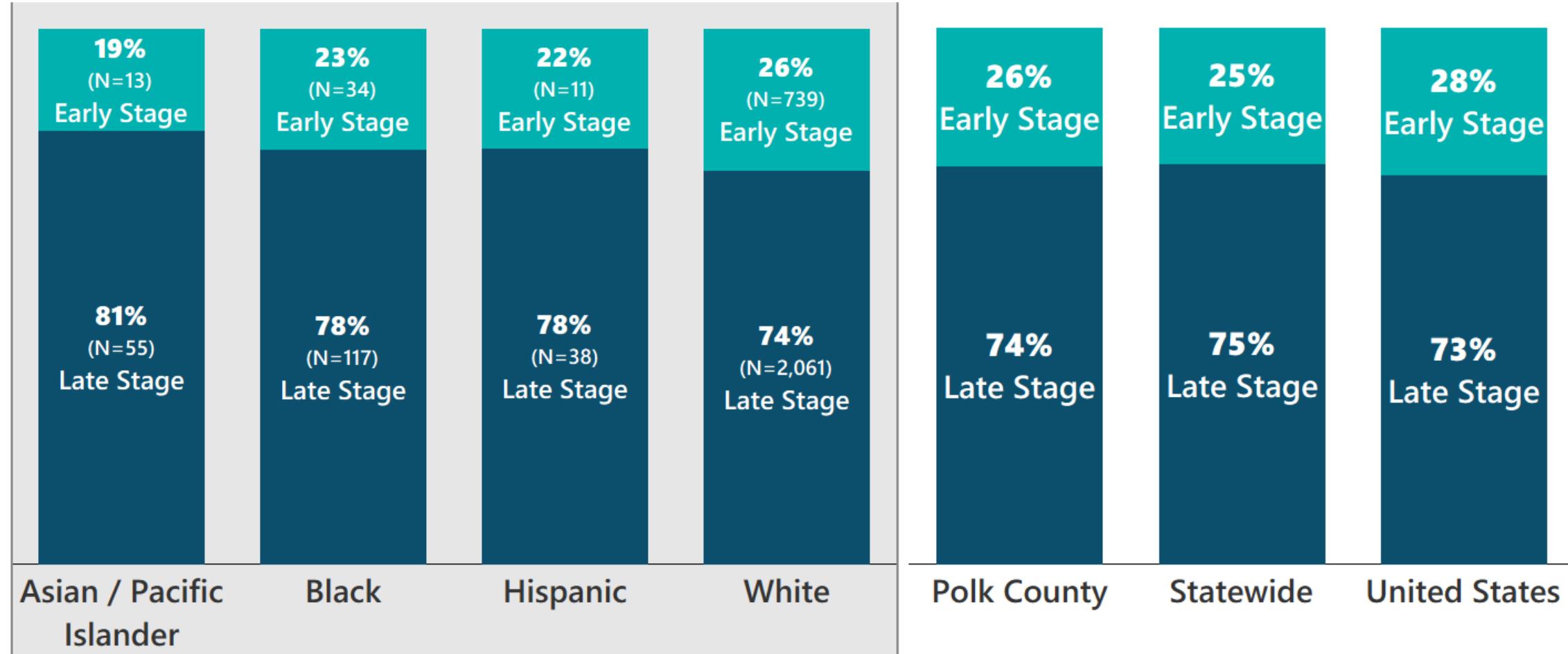
Screening Guidelines

Low-dose CT scan

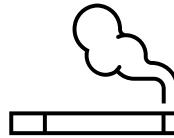
If you have smoked in the last 15 years and are between the ages 50-80 years talk to your doctor about being screened for lung cancer

(U.S. Preventative Services Task Force)

Lung Cancer by Race/Ethnicity & Stage at Diagnosis in Polk County



Lung Cancer Risk Factors



Smoking is #1 cause of lung cancer



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

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

**Learn more about Radon testing
and mitigation:**

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

Iowa Cancer Consortium
canceriowa.org/radon/

4 | Colorectal

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

188

New Cases per year

69

Deaths per year

Polk County

Statewide

United States

37.1

40.3

36.6

Polk County

Statewide

United States

13.5

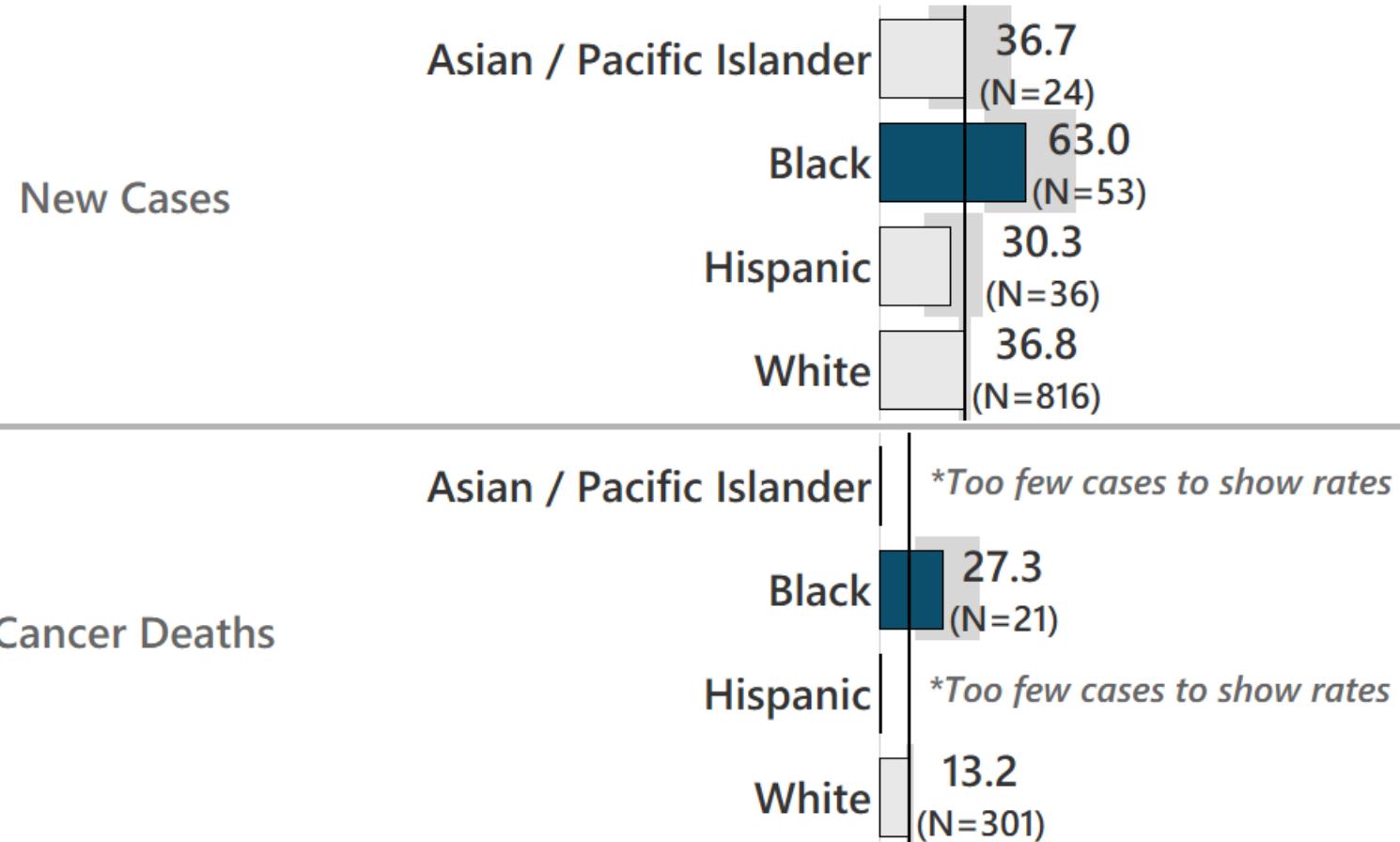
13.3

12.9

Age-Adjusted Rate per 100,000

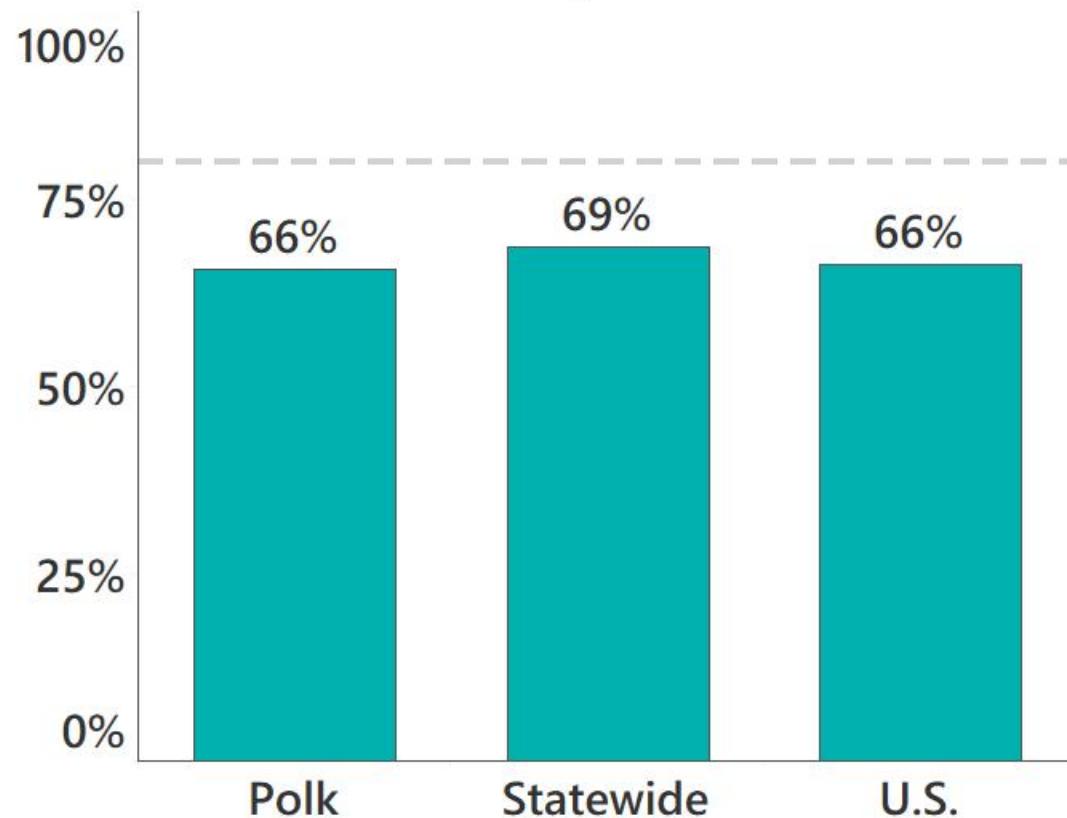
Incidence (2018-2022); Mortality (2019-2023)

Colorectal Cancer by Race/Ethnicity in Polk County



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.

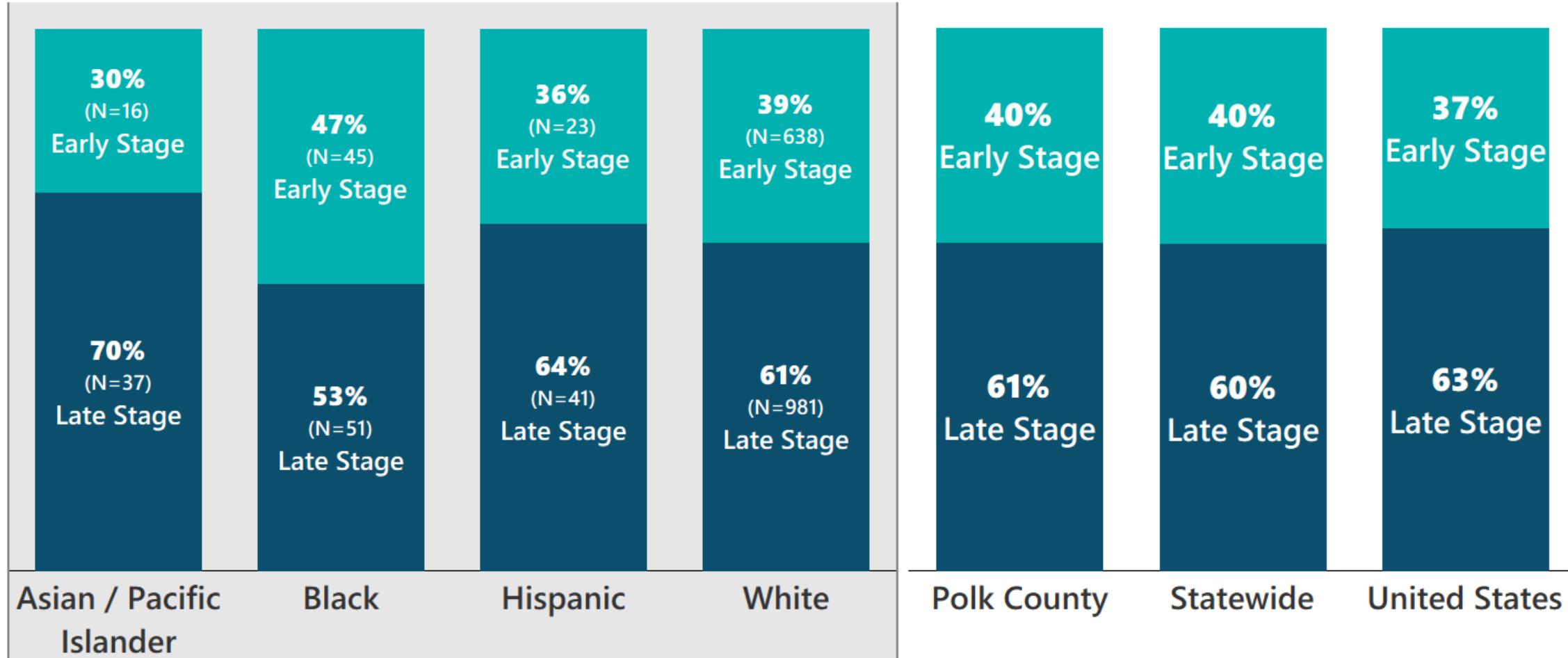
Talk to your doctor about which is best for you.

(U.S. Preventative Services Task Force)

Data from 2022 survey

Iowa Cancer Plan Goal: 80% by 2027

Colorectal Cancer by Race/Ethnicity & Stage at Diagnosis in Polk County



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)

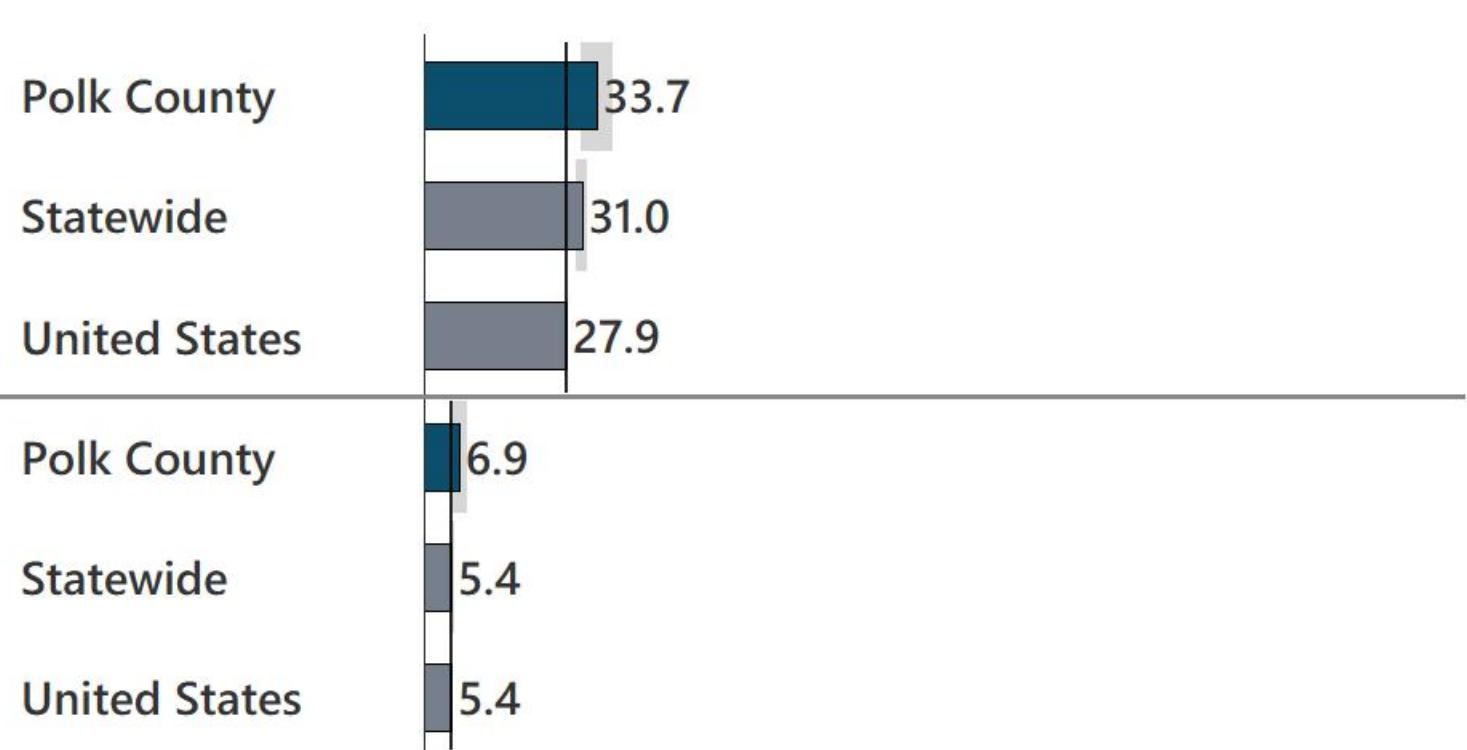
Each year in Polk County,
there are about...

98

New Cases per year

20

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



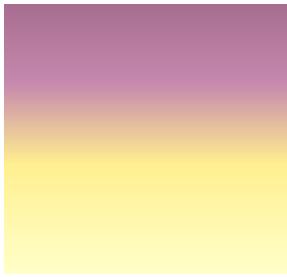
23%
Diagnosed at a
Late Stage

Iowa Cancer Zones:

Polk County

All Cancer Incidence,
2018-2022

Higher Rates



Lower Rates

Zone 1: Altoona, Pleasant Hill, Des Moines, Carlisle, Mitchellville

Zone 2: Southwestern Hills

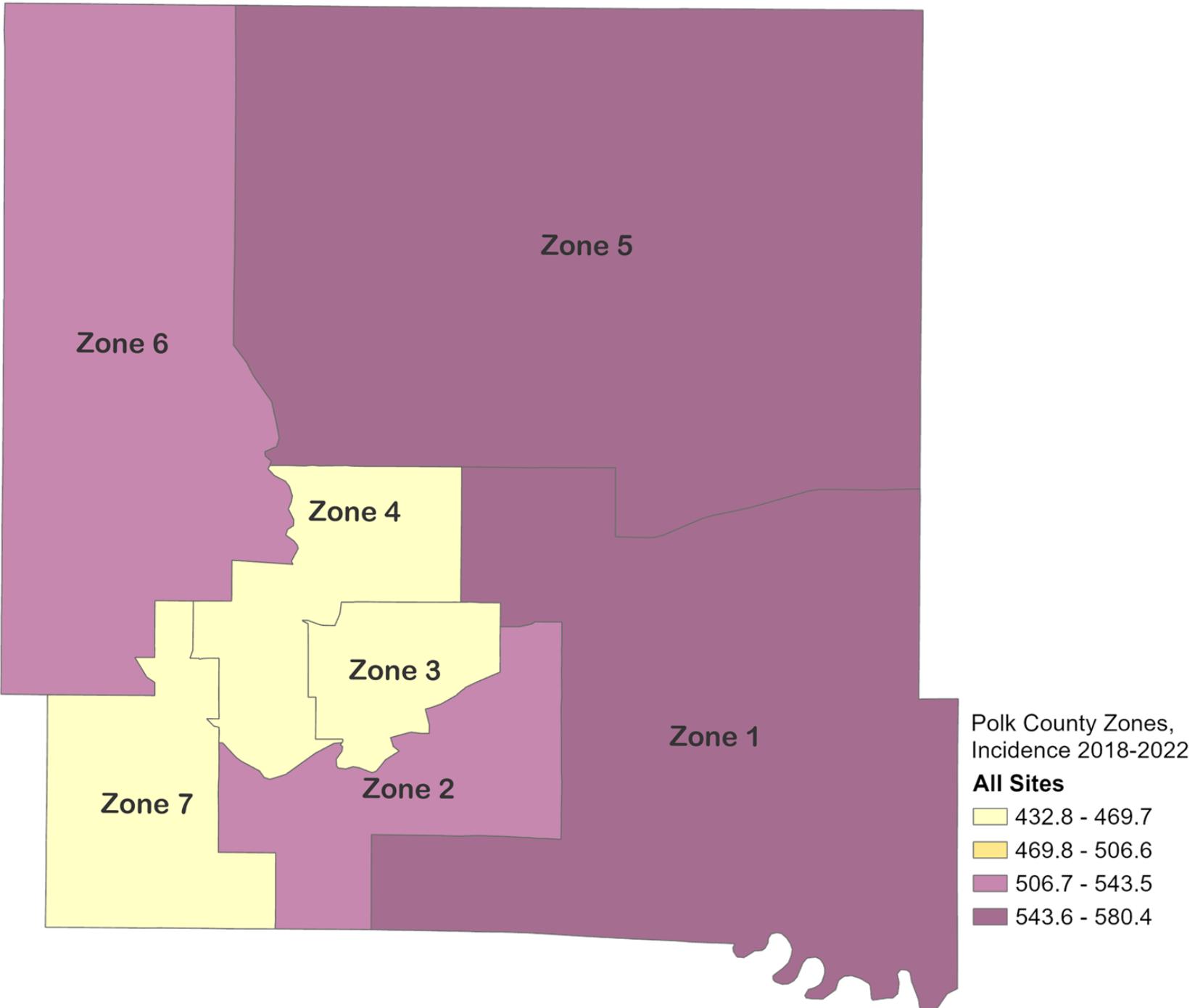
Zone 3: Highland Park, Drake, Union Park, Fairmont Park, Oak Park

Zone 4: Des Moines, Saylorville

Zone 5: Ankeny, Bondurant, Alleman, Elkhart, Altoona

Zone 6: Urbandale, Johnston, Clive, Grimes, Polk City

Zone 7: West Des Moines



Iowa Cancer Zones:

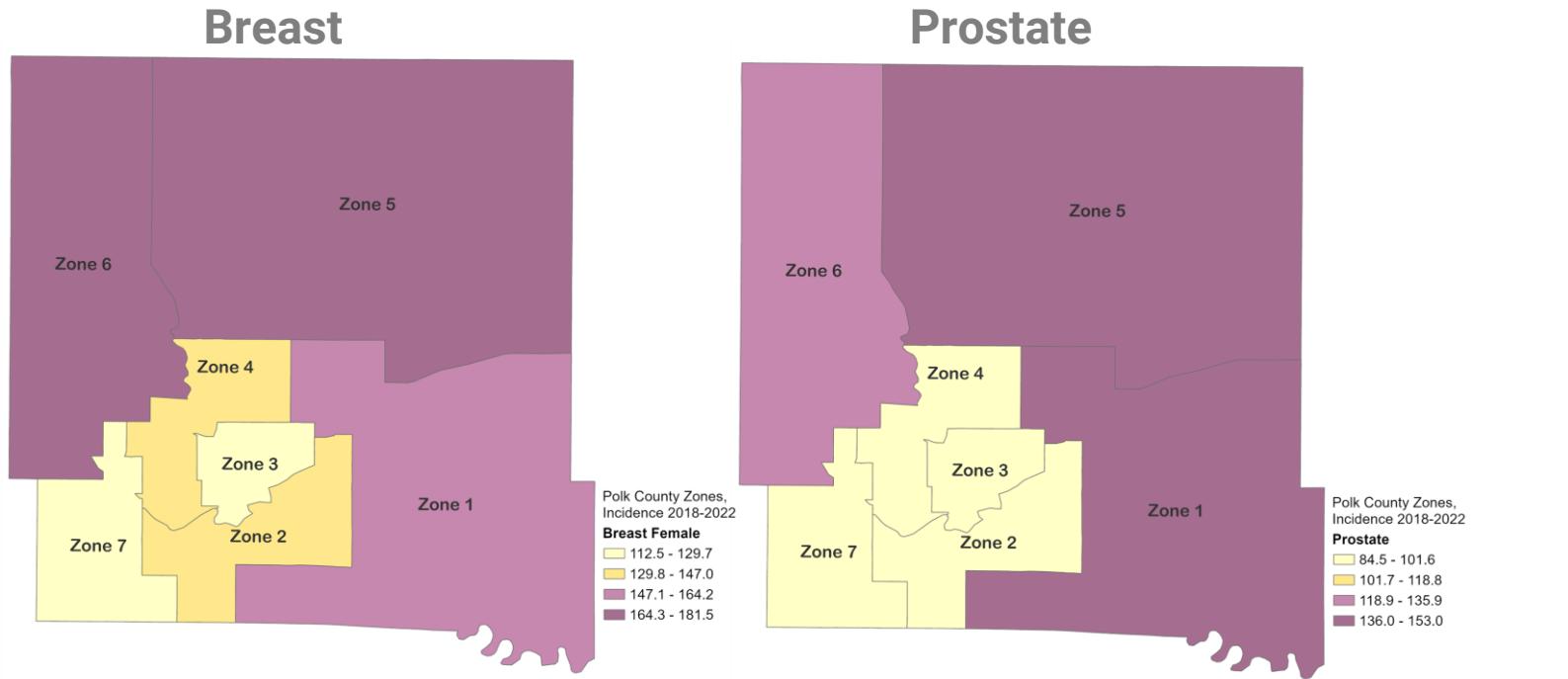
Polk County

Cancer Incidence, 2018-2022

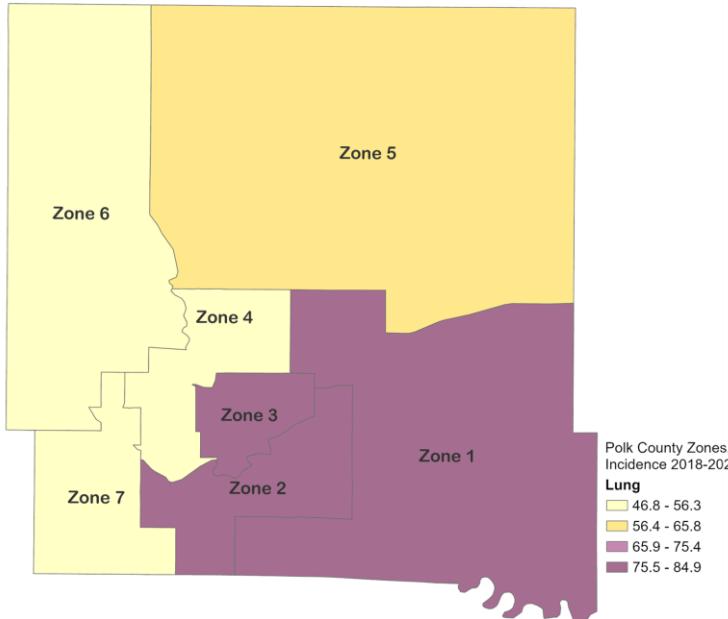
Higher Rates



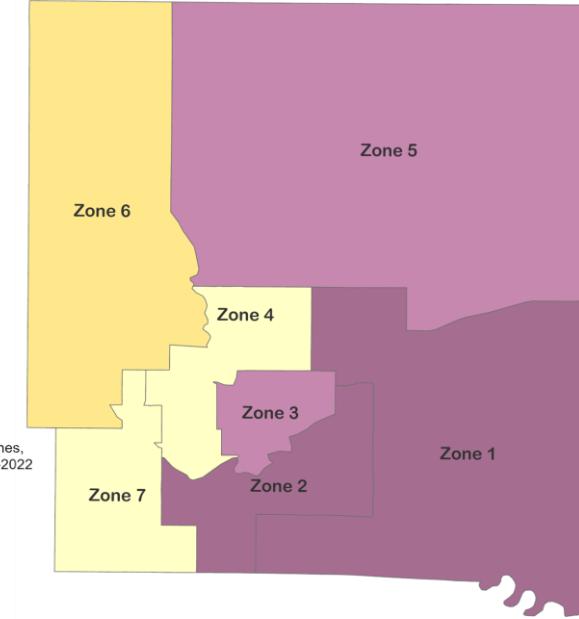
Lower Rates



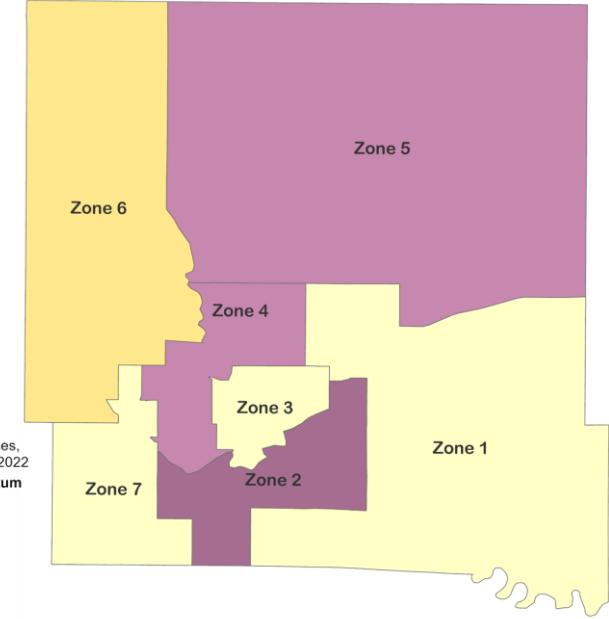
Lung



Colorectal



Endometrial (Uterine)

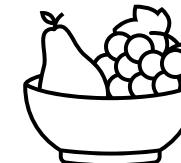


How can you reduce your risk for cancer?

~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



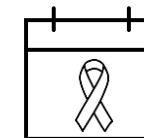
Vaccinate against Hepatitis B and HPV



Reduce indoor and outdoor air pollution (including radon)



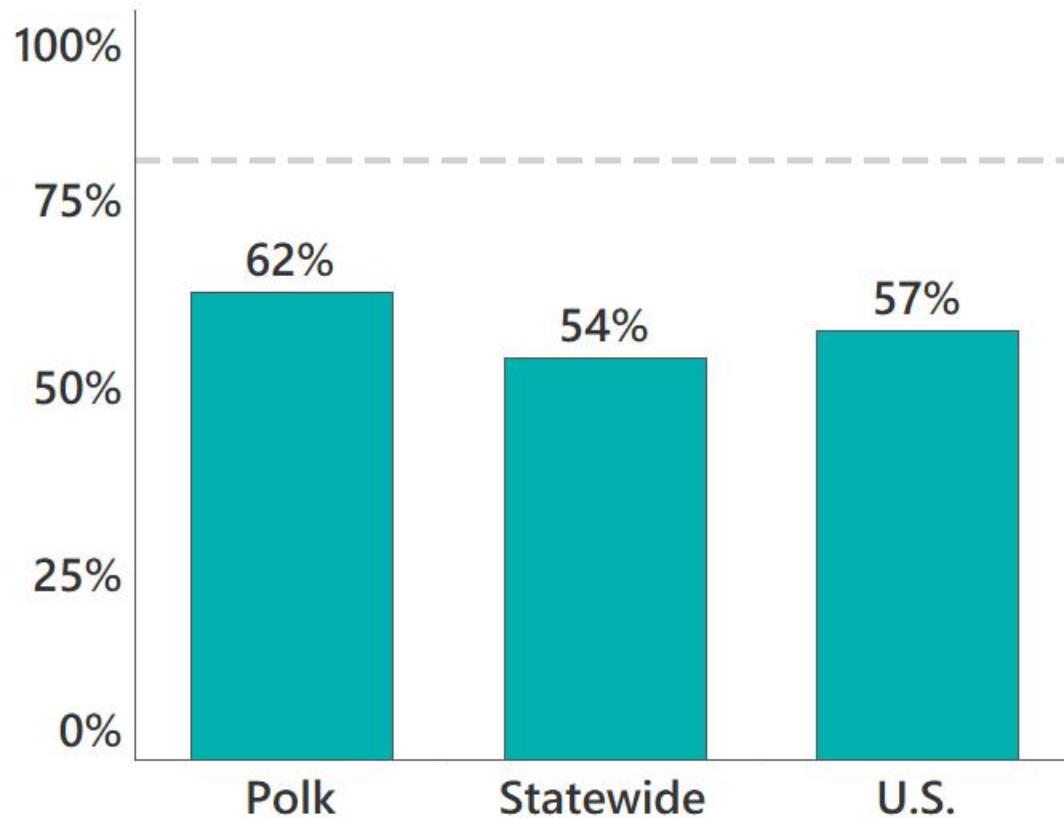
Decrease excess body weight



Get the appropriate cancer screenings for you!

A vaccine that prevents cancer: HPV

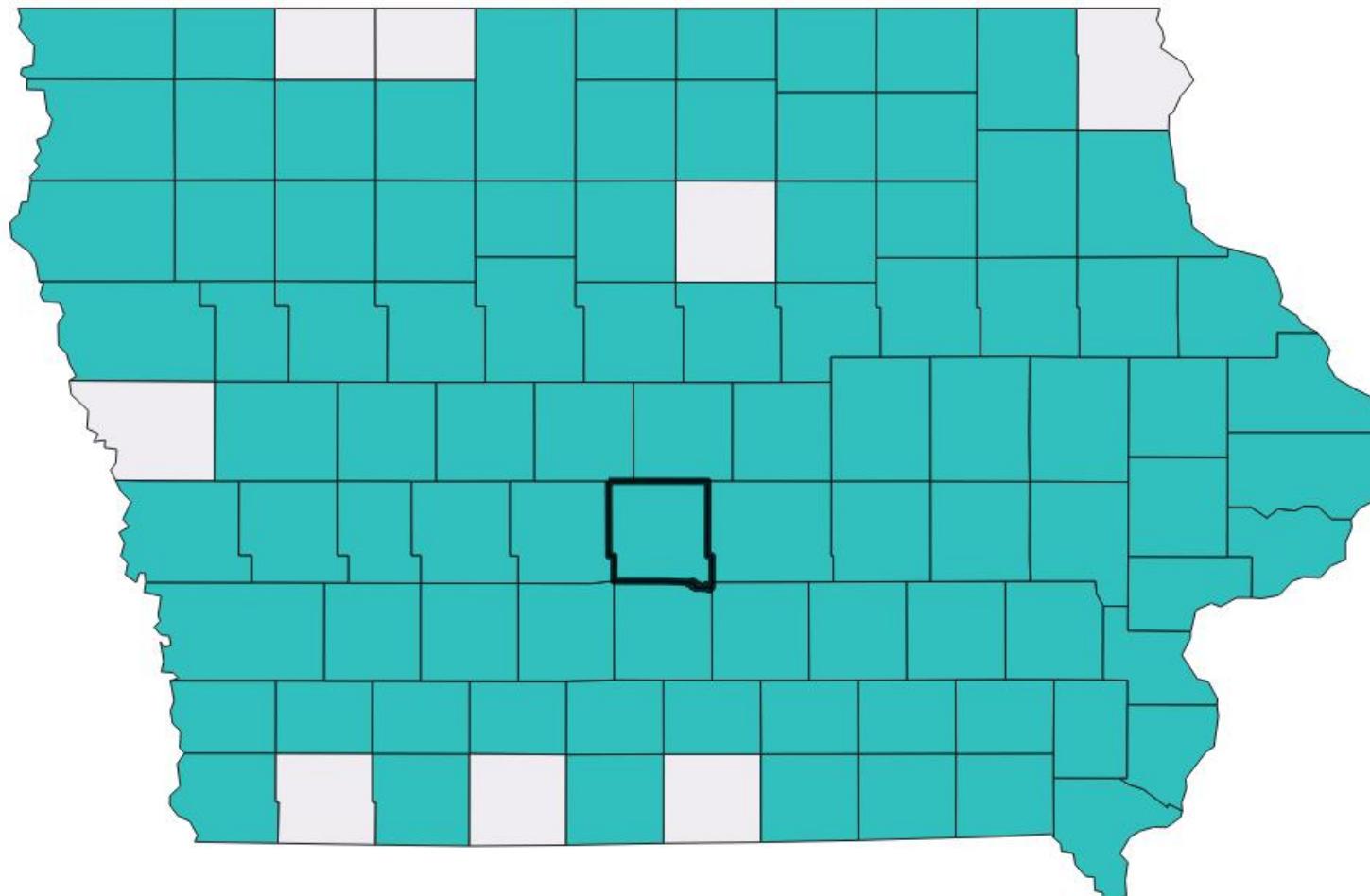
Adolescents ages 13-15 who have completed their HPV vaccine series (2023)



- 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

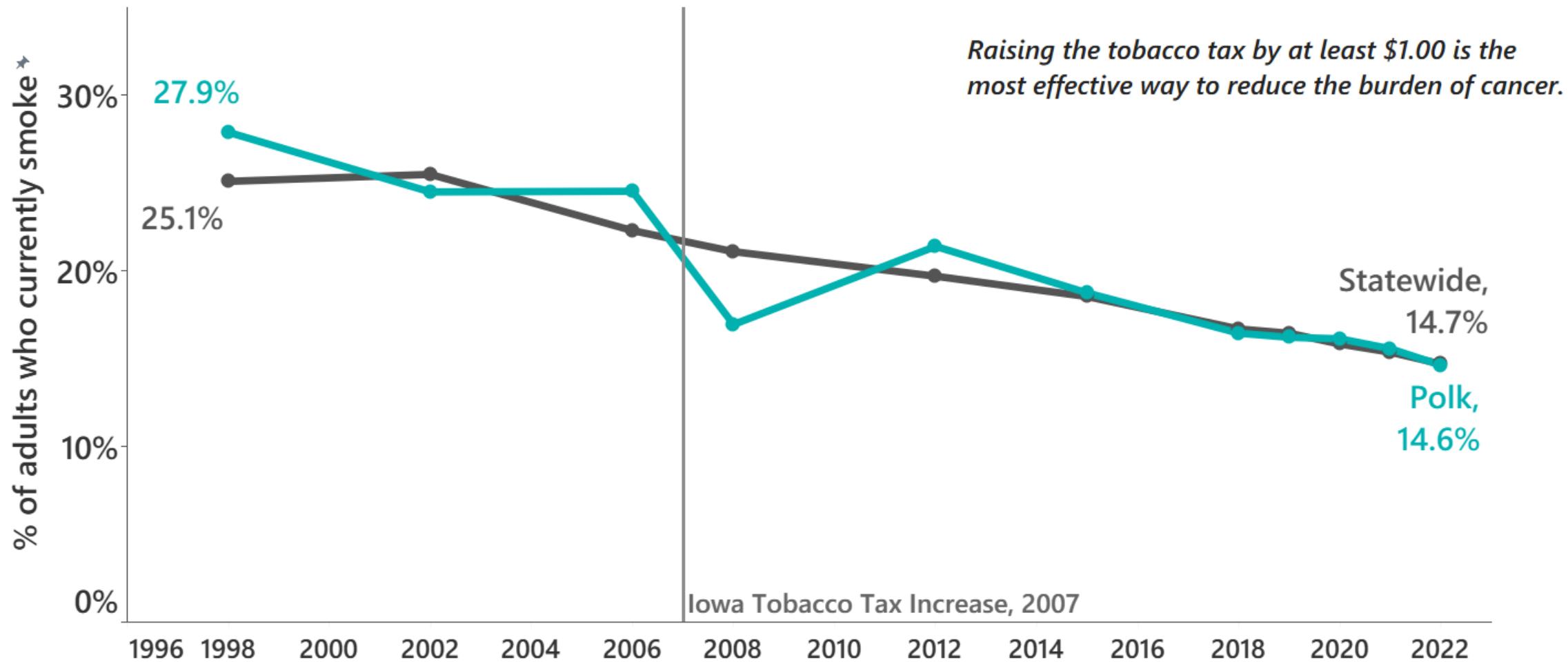
Iowa Cancer Plan Goal: 80% by 2027

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

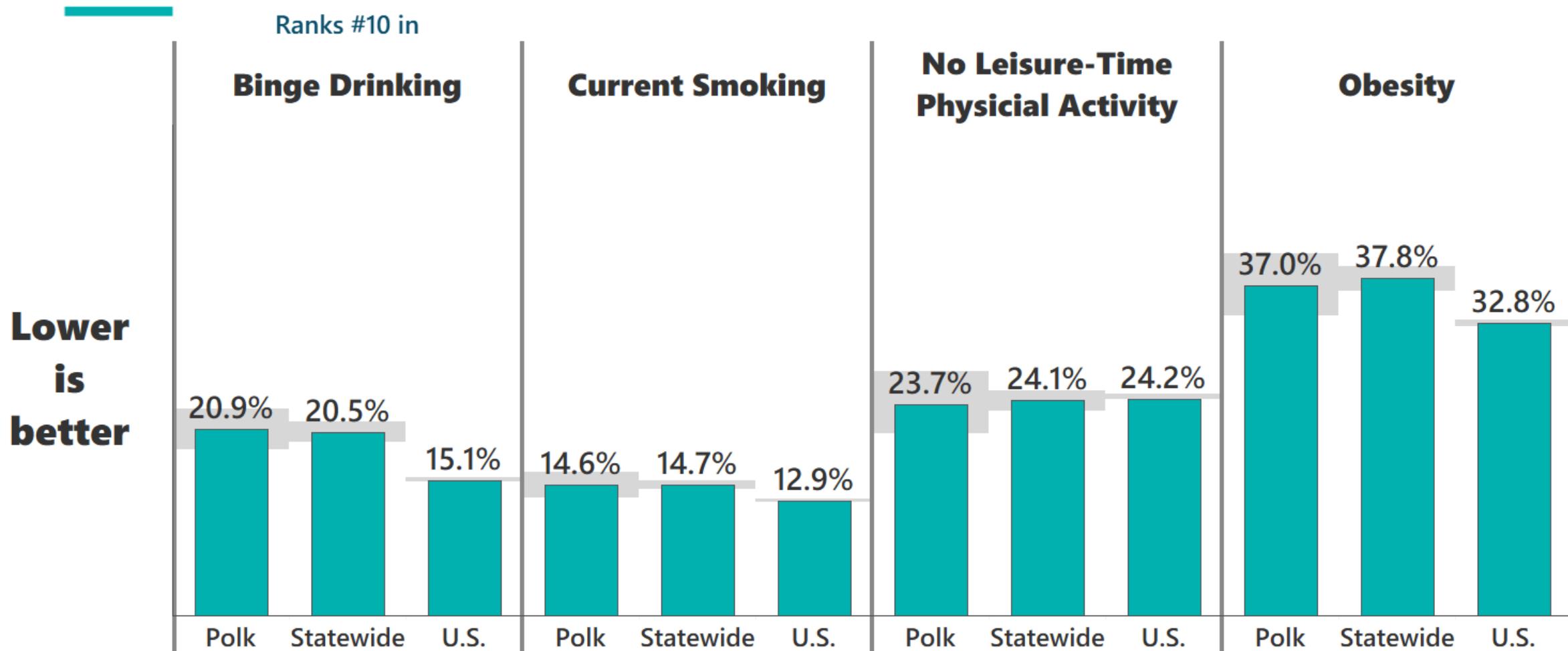


After the last increase to the tobacco tax was passed in 2007, smoking rates **decreased*** in Polk County

**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

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.

Our stories.
Our Plan.



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



Contact your legislator

Find your legislator at

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

Every community is different

Your expertise is key

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

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

Cancer control partners can help

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

Take stock of the information presented today

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

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

Polk County Resources (1)

[Black Women 4 Healthy Living](#)

A local nonprofit created by Black Women to address health disparities of Black Women with a holistic approach.

[Bras for the Cause](#)

A nonprofit dedicated to fighting breast and cervical cancer by increasing access to early detection and preventive care.

[Can Do Cancer](#)

Works to improve the lives of breast cancer patients undergoing chemotherapy treatment.

[Children's Cancer Connection](#)

Connect Iowa families affected by childhood cancer by providing opportunities that encourage relationships and strengthen community.

[My City My Health Prostate Cancer Initiative \(Save the Homies\)](#)

An initiative to help break stigma for Black men behind going to the doctor, as new alarming data shows increased cancer risk for Black men.

[Polk County Health Department Ribbons of Hope program](#)

A program that offers free cancer screenings and navigation for uninsured or underinsured individuals, focusing on breast, cervical, and colorectal cancers.

Polk County Resources (2)

[Above + Beyond Cancer](#)

Offers a variety of programs that elevate the mind, body and spirit of individuals touched by cancer-patients, survivors, and caregivers-throughout their cancer journey.

[Iowa Health Care - Mission Cancer & Blood](#)

A community-based healthcare team of cancer and blood specialists providing care and treatment options.

[John Stoddard Cancer Center](#)

As part of UnityPoint Health, John Stoddard Cancer Center provides leading-edge cancer care, clinical trials, and compassionate support for patients and families.

[MercyOne Des Moines Foundation](#)

Secures vital funding to ensure equal access, clinical excellence, and high-quality care for all in Central Iowa.

Polk County Resources (3)

[Healthiest State Initiative](#)

The vision that every Iowan has the opportunity to live their healthiest life, by creating awareness and integrating solutions to improve the physical, social and mental well-being of Iowans.

[American Lung Association Iowa](#)

Saving lives by improving lung health and preventing lung disease through education, advocacy, and research.

[Iowa Environmental Council](#)

Creates a healthy and sustainable environment for the future of all Iowans.

[Iowa Cancer Consortium](#)

Works to advance cancer prevention and control in Iowa through advocacy, equity, and collaboration.

[Iowa Rural Health Association](#)

Advocates for the health of all Iowans - especially rural communities - through education, collaboration, and policy engagement.

Resource Guide

Cancer in Iowa: 99 Counties Project

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

In the next slides we will highlight...

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

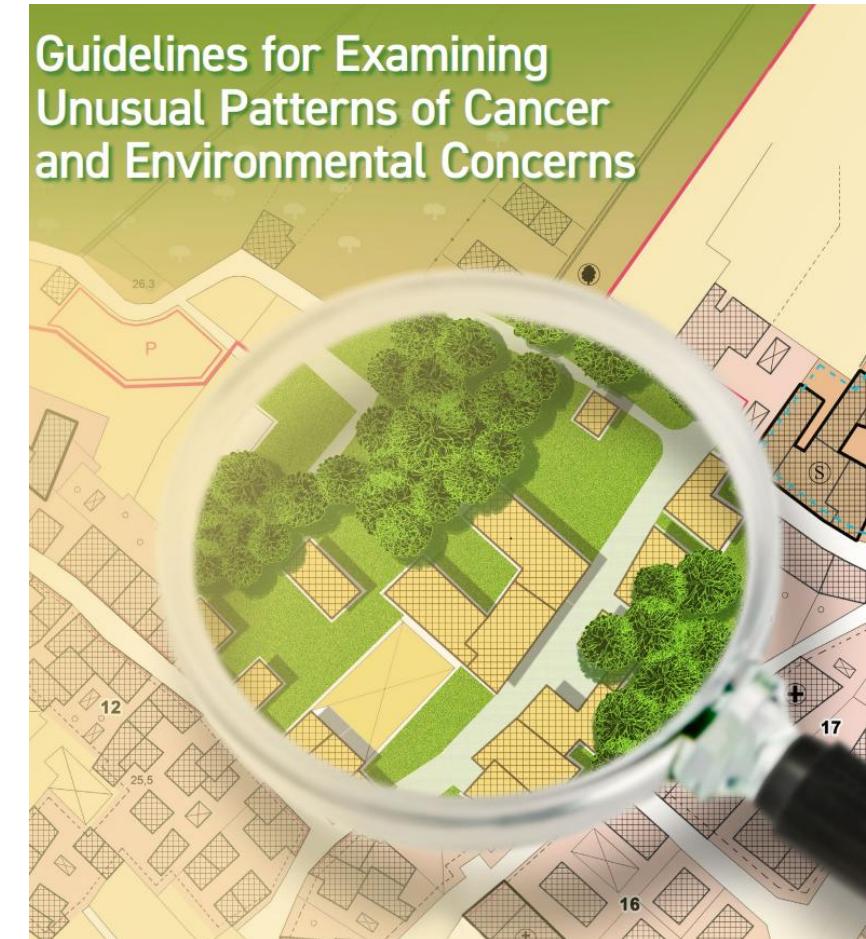


www.iowacancerregistry.org/99

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

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

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



Agricultural Health Study



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

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

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

Environmental Exposures & Health Risks Fact Sheets

Environmental Health Sciences Research Center

Include information on

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

Environmental Health Fact Sheets

- Arsenic
- PFAS
- Atrazine
- TCE
- Glyphosate
- Nitrate
- Radon



<https://ehsrc.public-health.uiowa.edu/communityengagement/resources-information/>

Nitrate & Health Fact sheet



IOWA
College of Public Health

Introduction

Nitrate, a form of nitrogen, is a water-soluble chemical found at high concentrations in some Iowa waterways and private wells (1, 2, 3). Nitrate is colorless and has no smell, so it is unnoticeable in

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

Cancer Health Risks

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

Non-Cancer Health Risks

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

How is Nitrate regulated?

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

What can you do?

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

Questions? Visit our website EHSRC.org

Iowa Private Well Grants Program

Iowa Health & Human Services

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

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

Analytes

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

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

[County Health Department - contact list](#)

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

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

Center for Health Effects of Environmental Contamination (CHEEC)

University of Iowa

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

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

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

The logo for the Center for Health Effects of Environmental Contamination (CHEEC). The word "CHEEC" is written in a bold, blue, sans-serif font, with each letter having a slight vertical drop shadow.

Director David Cwiertny

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

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

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

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

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



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

UNI

University of Northern Iowa
Center for Energy & Environmental Education

Other initiatives in Iowa



The Harkin Institute



Cancer and Environmental Risk Factors in Iowa

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

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



Expert Panel

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

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.

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

Main Takeaways

Cancer is an important health issue facing your county.

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

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

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

This is only the first step.

Thank you for attending!

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

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

