

Missouri Cancer Registry Annual Report 2025



MISSOURI CANCER REGISTRY AND RESEARCH CENTER

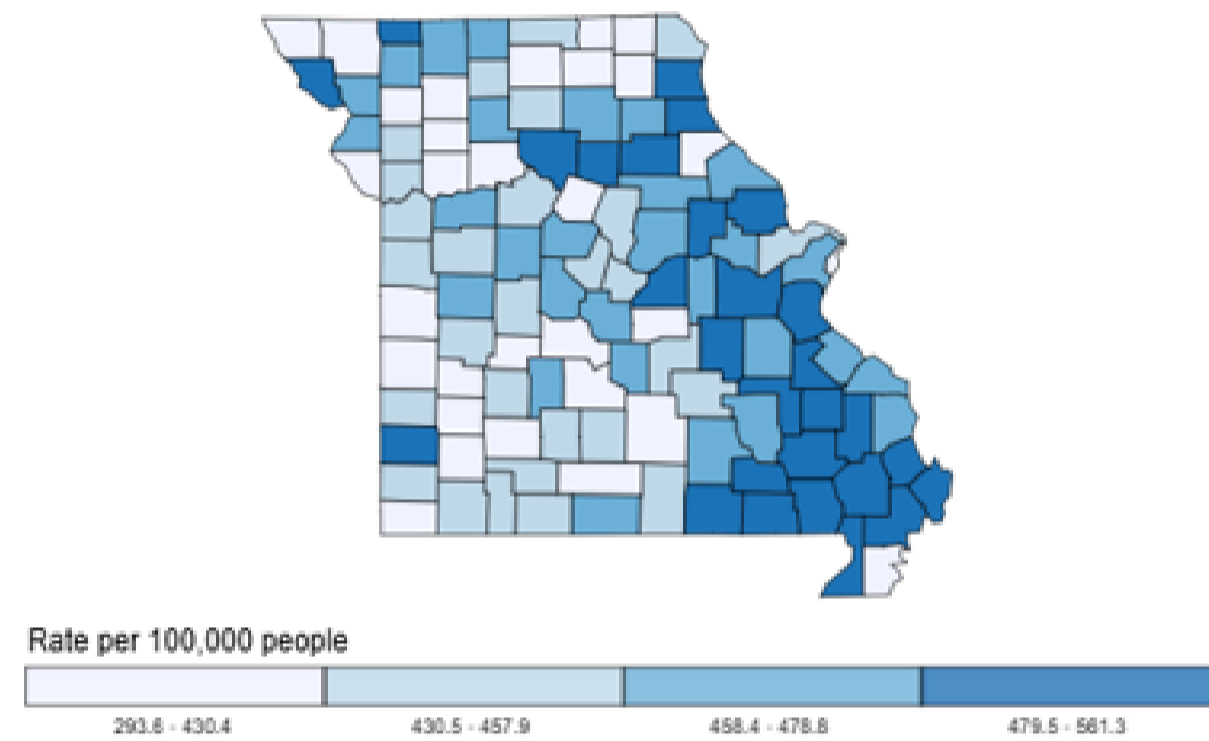
The Missouri Cancer Registry (MCR) is a population-based cancer registry that collects, maintains, and disseminates data on cancer cases in the state of Missouri. The registry is responsible for collecting data on all incident cases of cancer diagnosed in Missouri, including information on patient demographics, cancer site, stage at diagnosis, and treatment. This data is then used to inform public health practice and policy, as well as to support research on cancer trends, risk factors, and outcomes. The MCR, Missouri's state-mandated central cancer registry, is located on the campus of the University of Missouri and housed within the Department of Health Management and Informatics in the School of Medicine. MCR is a collaborative partnership between the Missouri Department of Health and Senior Services (DHSS) and the University of Missouri. MCR has received financial support from the Centers for Disease Control and Prevention's (CDC's) National Program of Cancer Registries (NPCR) since 1995. MCR collects cases from inpatient and outpatient hospital settings, physician offices, pathology laboratories, ambulatory surgical centers, residential care facilities and assisted living facilities, intermediate care facilities, skilled nursing facilities, and free-standing cancer clinics and treatment centers — required by Missouri statutes (192.650, 192.653, 192.655, 192.657 RSMo) and and regulations (19 CSR 70-21.010) to submit cancer information to the state central cancer registry.

The MCR is a valuable resource for public health professionals and administrators, researchers, healthcare providers, and policymakers, as it provides a comprehensive picture of the burden of cancer in the state of Missouri. It also helps to track progress towards the national goal of reducing the burden of cancer, as well as to identify disparities in cancer outcomes among different population groups. Furthermore, MCR is a member of the North American Association of Central Cancer Registries (NAACCR) which is an organization that provides standards and guidelines for the collection and dissemination of cancer data. For the Missouri Cancer Registry, confidentiality is most important. Sensitive data about cancer cases in the state of Missouri are gathered, maintained, and disseminated by the registry. This is particularly important for healthcare providers who are collecting and reporting data to the registry, as they are responsible for ensuring that the information they provide is accurate and complete, while also maintaining patient confidentiality.

The Missouri Cancer Registry Annual Report provides information to the public on the status of cancer in our state.

INCIDENCE OF CANCER IN MISSOURI

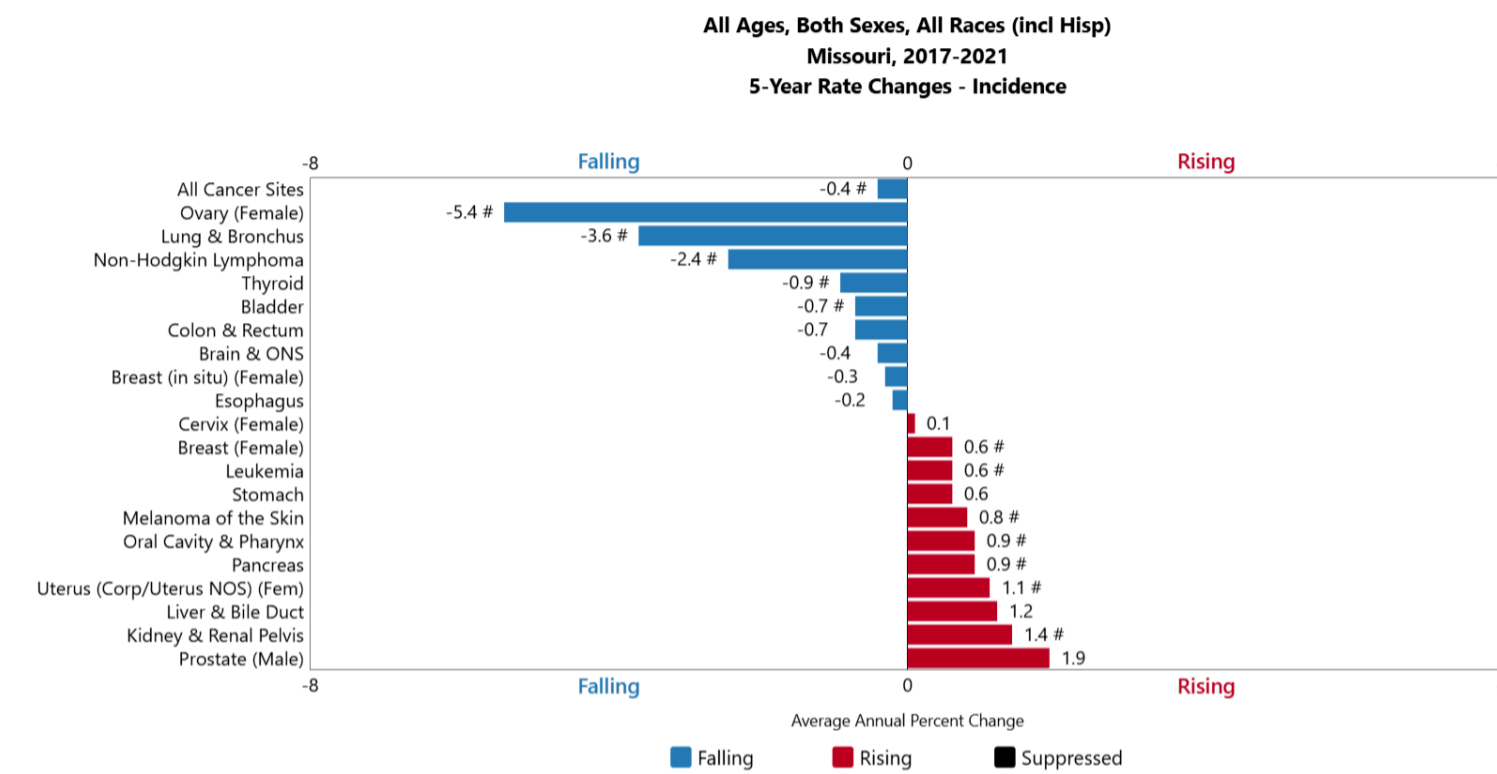
Rate of New Cancers in Missouri : All Types of Cancer 2017-2021



In Missouri from 2017-2021, there were **174,376 new cases** of cancer. For every 100,000 people, **452 cancer cases** were reported

Source - USCS data visualization

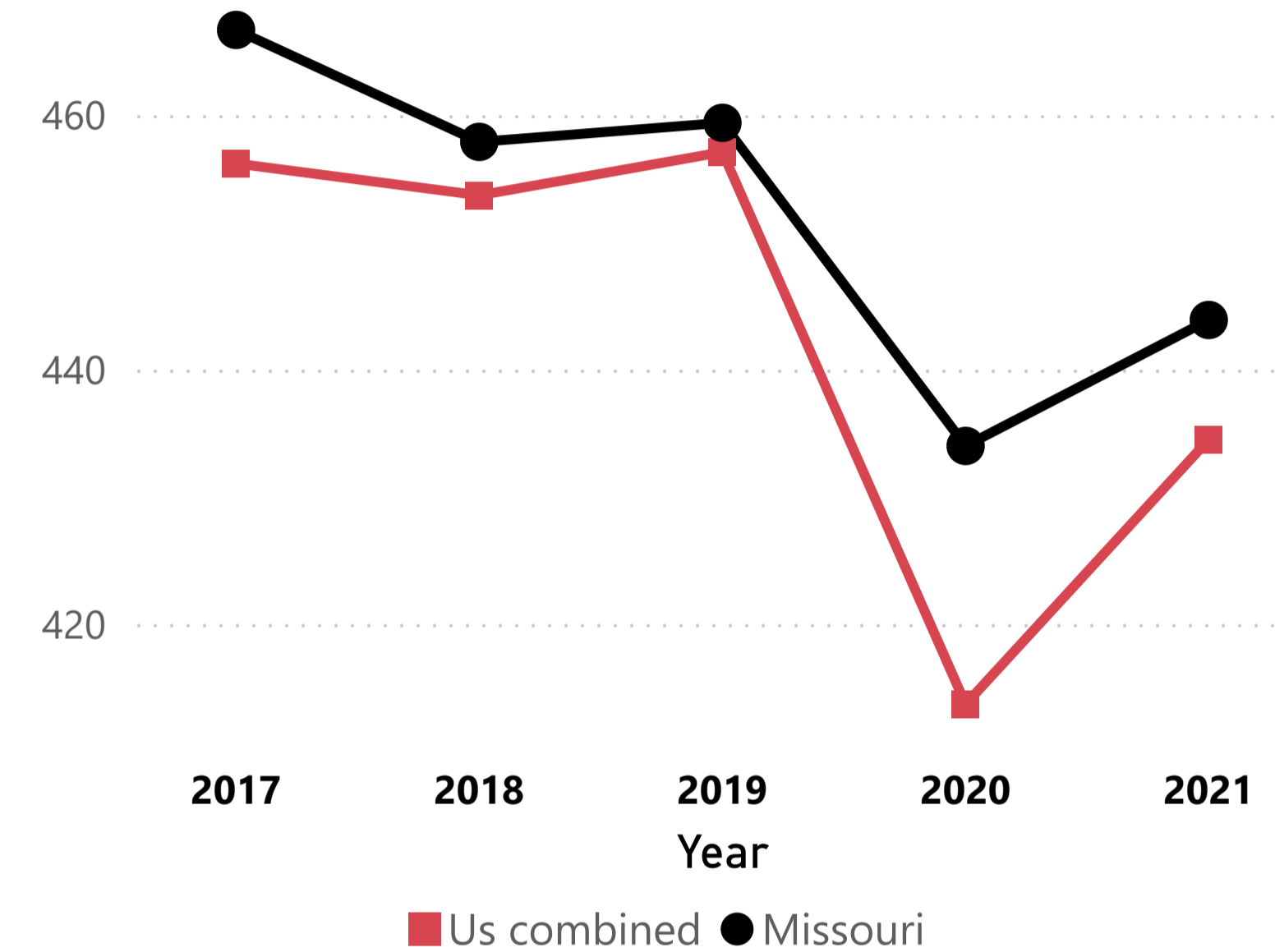
5 Year Changes- Incidence in Missouri 2017-2021



In Missouri, the 5 year change-incidence rates were **considerably low** for **Lung and bronchus, Ovarian, Non-Hodgkin lymphoma, Thyroid**, whereas it was **considerably high** for **Prostate, Corpus and Uteri (NOS), Kidney and renal pelvis, Liver and Bile duct, and Pancreas**.

Source - State Cancer Profile

Age-adjusted Incidence rate US vs Missouri 2017-2021

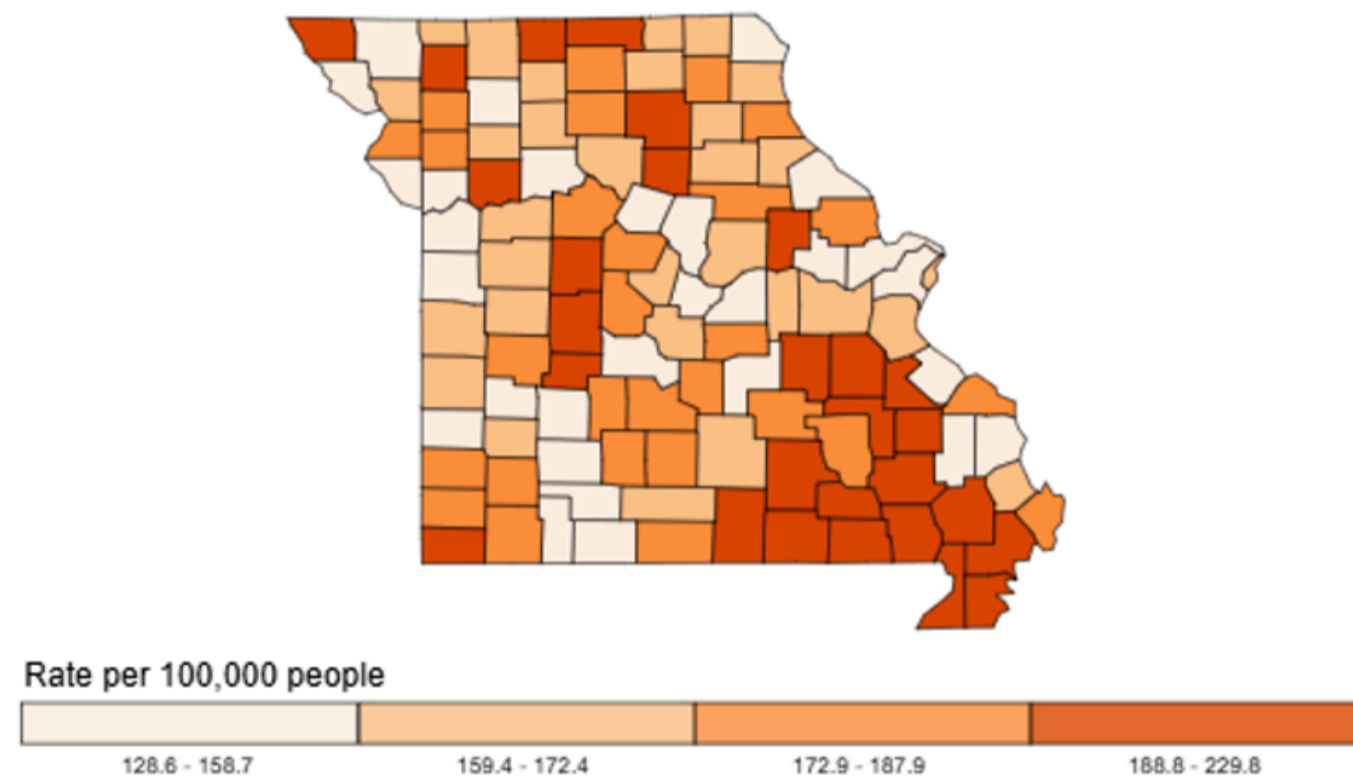


The line graph above compares the incidence rates in Missouri and the US from 2017 to 2021. Throughout these years, Missouri consistently exhibited **higher incidence rates** compared to the national average.

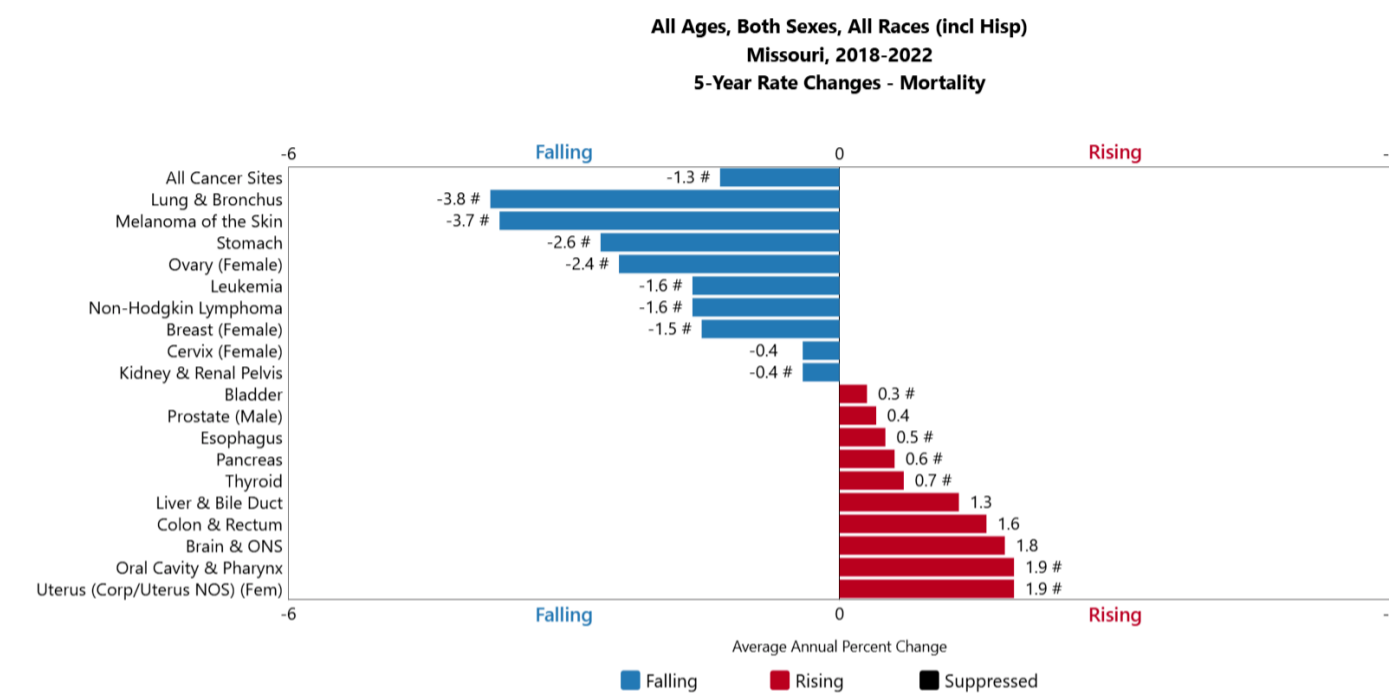
Source - CiNA Statistics

MORTALITY RATE OF CANCER IN MISSOURI

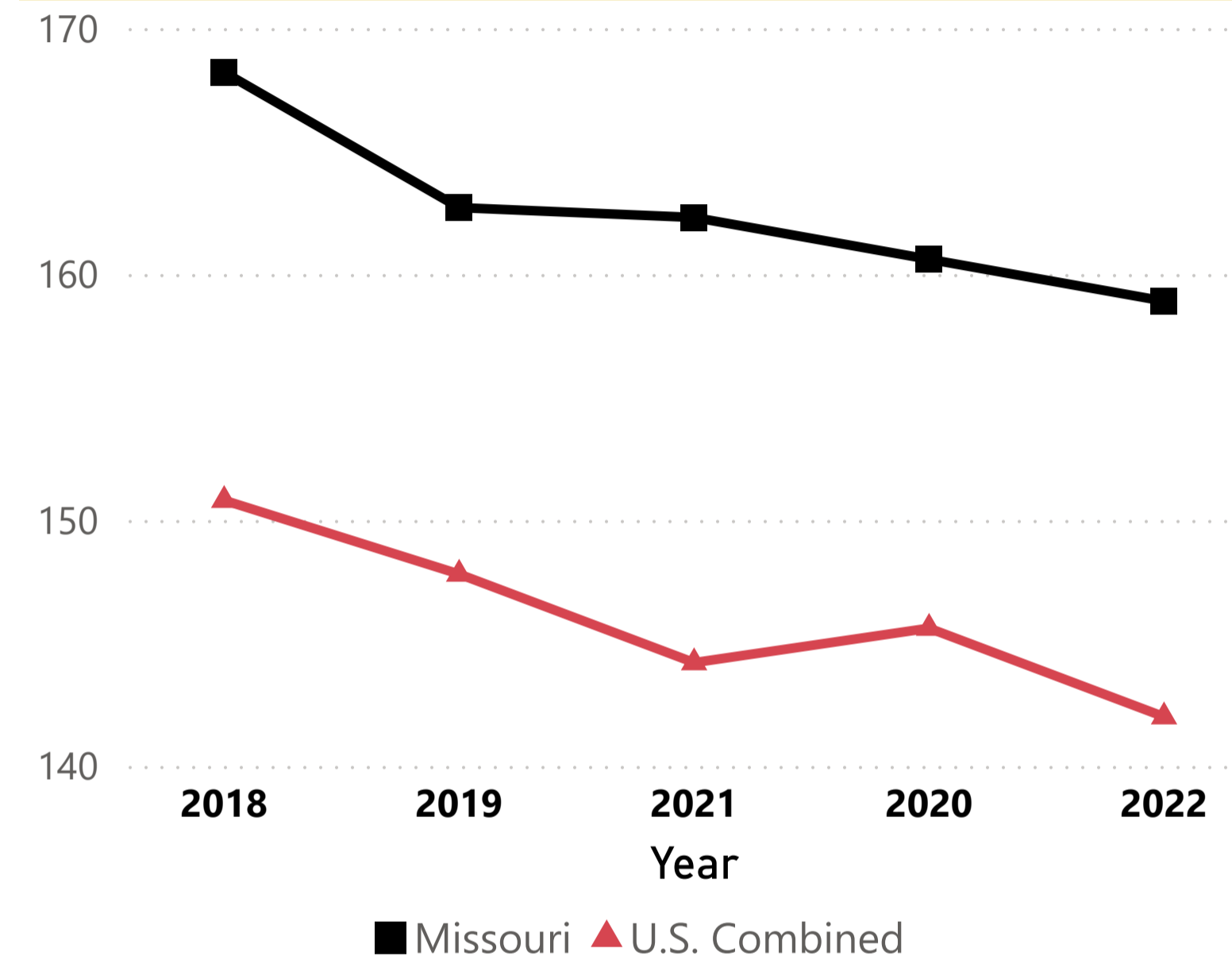
Mortality rate in Missouri 2018-2022



5 Year Changes- Mortality in Missouri 2018-2022



Age-adjusted Mortality rate US vs Missouri 2018-2022



In Missouri from 2018-2022, there were **65,044 people who died of cancer**. For every 100,000 people, **161 died of cancer**.

Source - USCS data visualization

In Missouri, the 5 year change-mortality rates were **considerably low** for Lung and bronchus, Ovarian, Non-Hodgkin lymphoma, Melanoma of skin, Female breast, and Cervical cancer, whereas it was **considerably high** for Colon and Rectum, Brain and CNS, Oral cavity and Pharynx, Uterus, Liver and Bile duct, and Pancreas.

Source - State Cancer Profile

The line graph above compares the incidence rates in Missouri and the US from 2018 to 2022. Throughout these years, Missouri consistently exhibited **higher mortality rates** compared to the national average.

Source - CiNA Statistics

EPIDEMIOLOGICAL TRIAD and TYPES OF PREVENTION

Epidemiological triad of disease is a model of disease causation.

It has **three** basic elements:

1. **The agent** (the actual biological cause of disease)
2. **The host** (a person who is at risk for the disease)
3. **The environment** (the place where the agent and the host encounter one another)

Figure 1. Epidemiological triad of disease (Source:Cancer Registry Management)

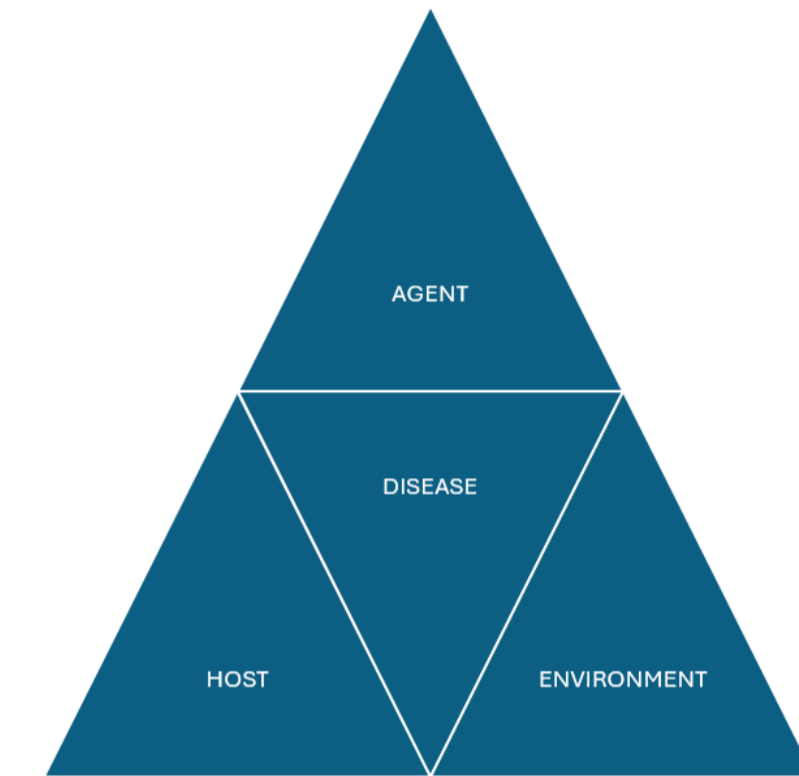
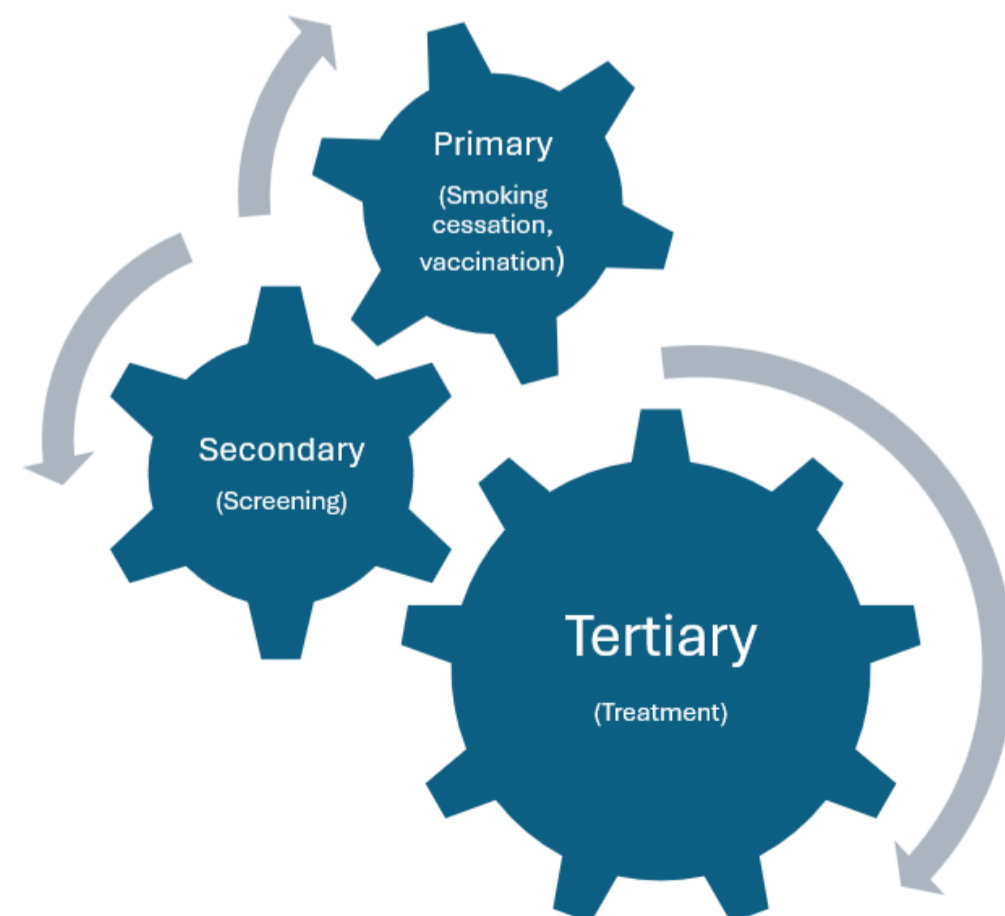


Figure 2. Types of Prevention (Source:Cancer Registry Management)



There are **three** types of Prevention:

1. **Primary prevention:** Before the biological onset of disease and includes lifestyle and behavior modification, such as smoking cessation or vaccinations, as well as occupational and environmental regulations to prevent hazardous exposures.
2. **Secondary prevention:** Begins after the possible biological onset of disease but before symptoms of the disease present such as screening.
3. **Tertiary prevention:** begins after a disease is diagnosed and includes methods for preventing the disease from becoming more severe, such as treatment , and screening for complications.

PRIMARY PREVENTION: LIFESTYLE AND CANCER

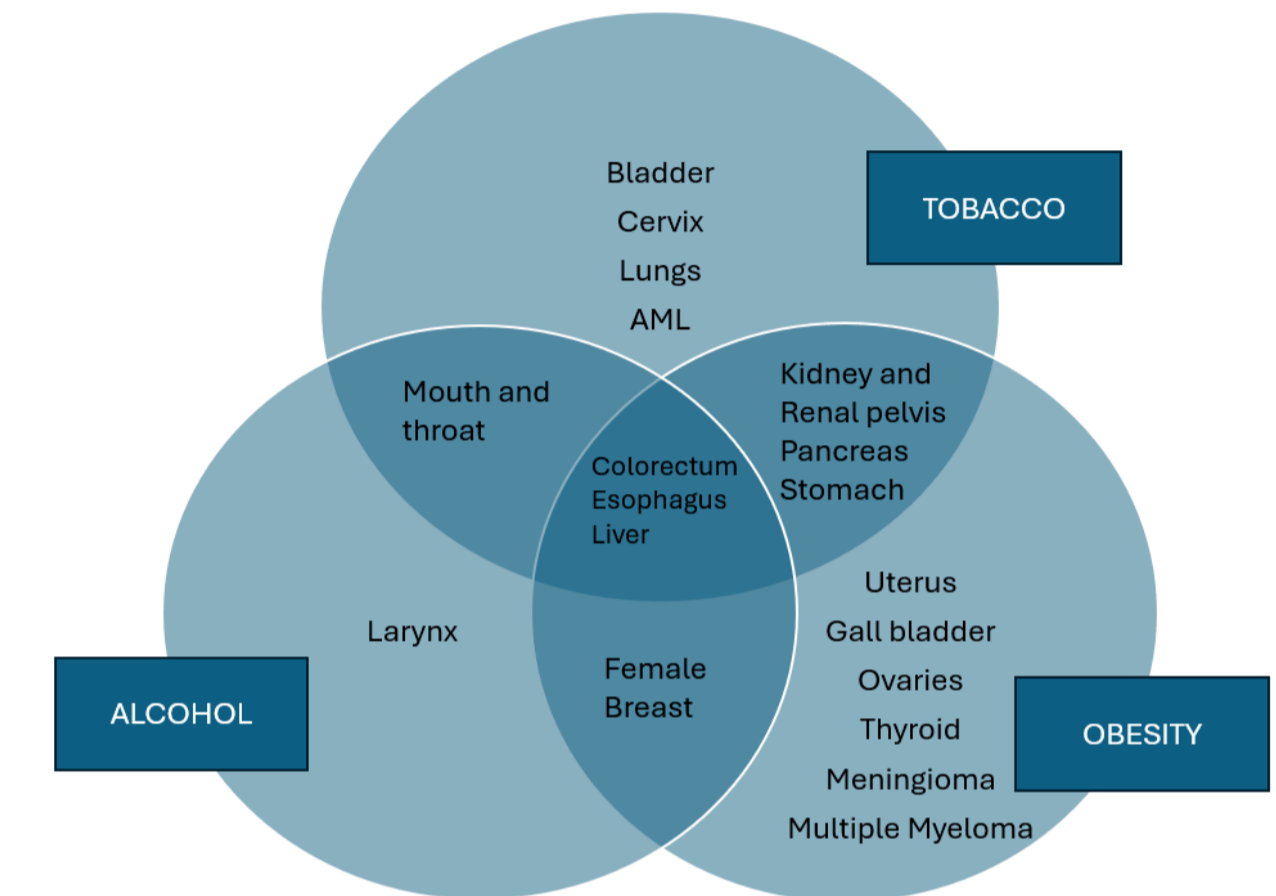
There are certain cancers that are at a risk with certain lifestyle choices. Figure.1 shows the cancers linked with its risk factors (source CDC).

Definitions:

- Binge drinking:** This indicator reports the estimated number and percentage of adults aged ≥ 18 who reported having more than 5 drinks for male or more than 4 for female in one occasion.
- Heavy drinking:** This indicator reports the estimated number and percentage of adults aged ≥ 18 who reported having per week more than 14 drinks for men or more than 7 drinks for women.
- Current cigarette smoking:** This indicator reports the estimated number and percentage of adults aged ≥ 18 who reported smoking .
- Cigarette Quit attempt past year:** This indicator reports the estimated number and percentage of adults aged ≥ 18 who reported smoking and attempted to quit in the past year.
- No leisure time physical activity:** This indicator reports the estimated number and percentage of adults aged ≥ 18 who reported not having physical activity in the past 30 days .

According to **Behavioral Risk Factor Surveillance System (BRFSS) 2022 data**, in the **United States**, the **age-adjusted prevalence** among **adults aged 18+ years** who reported **ever smoking 100 cigarettes** was **36.2%** , who reported **binge drinking** was **15.4%**, who reported **no leisure time physical activity in past 30 days** was **22.9%**.

Figure 3. Cancers associated with risk factors (Source CDC)



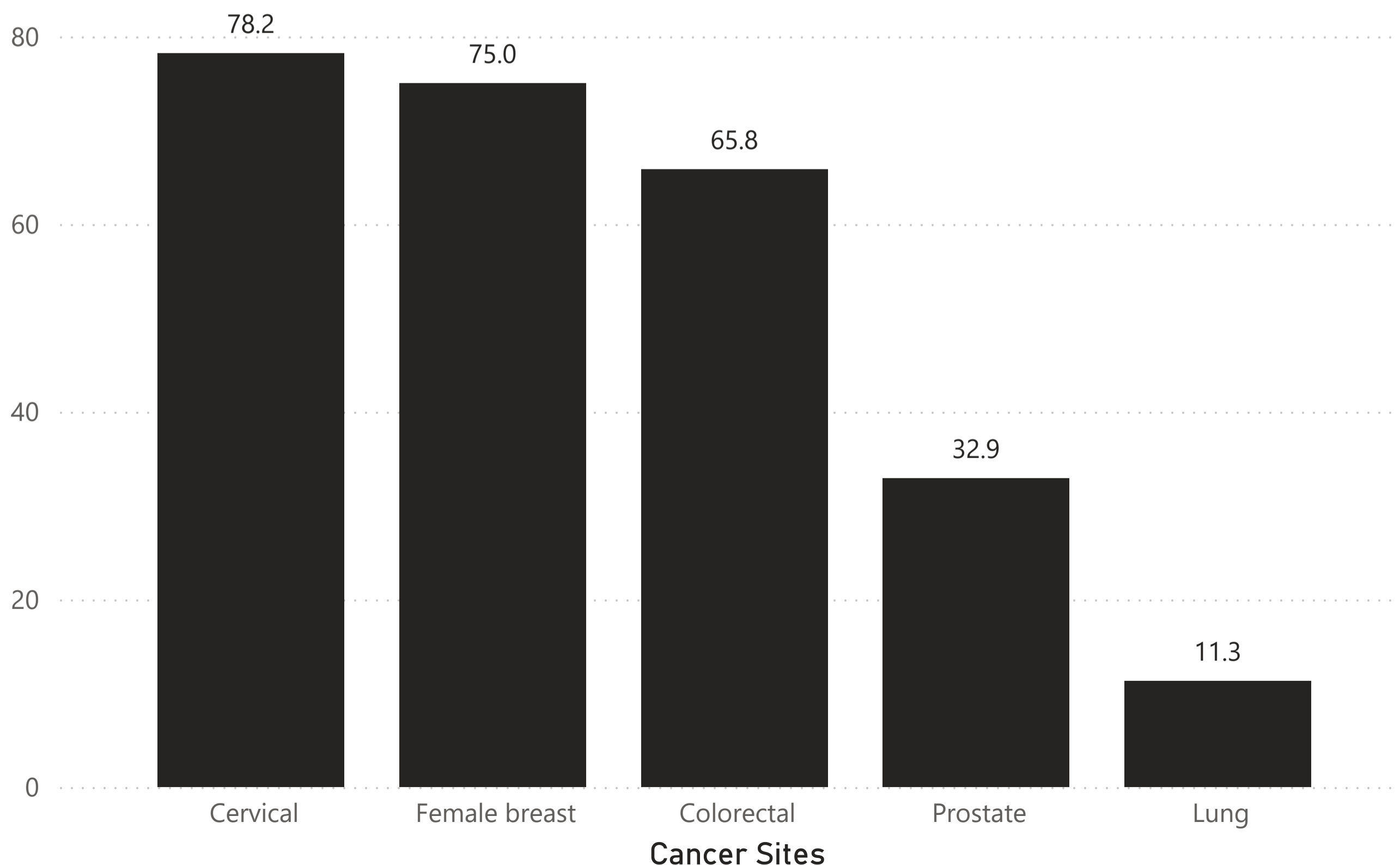
Age-Adjusted % in Missouri

Binge Alcohol	Heavy Alcohol	No leisure time physical activity	Current Smoker	Quit Smoking
18.90	7.80	22.27	15.74	52.93

SECONDARY PREVENTION: SCREENING RATES IN MISSOURI

Screening-amenable cancers are cancers that can be effectively treated and prevented with early detection and screening. These include cancers such as breast, prostate, cervical, colorectal and lung cancer. Screening for these cancers can help to detect the disease at an early stage, when it is more likely to be treatable, and can also help to identify individuals at high risk of developing cancer.

SCREENING RATE (AGE-ADJUSTED)



- The Missouri Cancer Registry also plays a critical role in monitoring the rates of screening for amenable cancers in the state.
- The registry collects data on cancer cases in Missouri, including information on patient demographics, cancer site, stage at diagnosis, and treatment.
- This data is then used to inform public health practice and policy, as well as to support research on cancer trends, risk factors, and outcomes.
- By understanding the rates of screening for amenable cancers in Missouri, public health officials, researchers, healthcare providers, and policymakers can develop strategies to increase the rate of screening for these cancers and improve outcomes for cancer patients.

SECONDARY PREVENTION: SCREENING RATES IN MISSOURI

Missouri has implemented several programs and initiatives to increase the rate of screening for amenable cancers, including

1. Missouri Breast and Cervical Cancer Program (MBCCP): which provides breast and cervical cancer screenings to uninsured and underserved women in the state.
2. Missouri Colorectal Cancer Control Program (MO CRCCP) provides colorectal cancer screenings and follow-up care to uninsured and underserved

According to the screening information from USCS Data Visualization

71.6%

of total Missouri population were between age 50-75 years were screened for **Colorectal cancer** based on USPSTF recommendations according to BRFSS 2022

73.9%

of total women aged 40+ years had mammogram in the past 2 years as a method of **Female Breast cancer** screening according to BRFSS 2022

78.8%

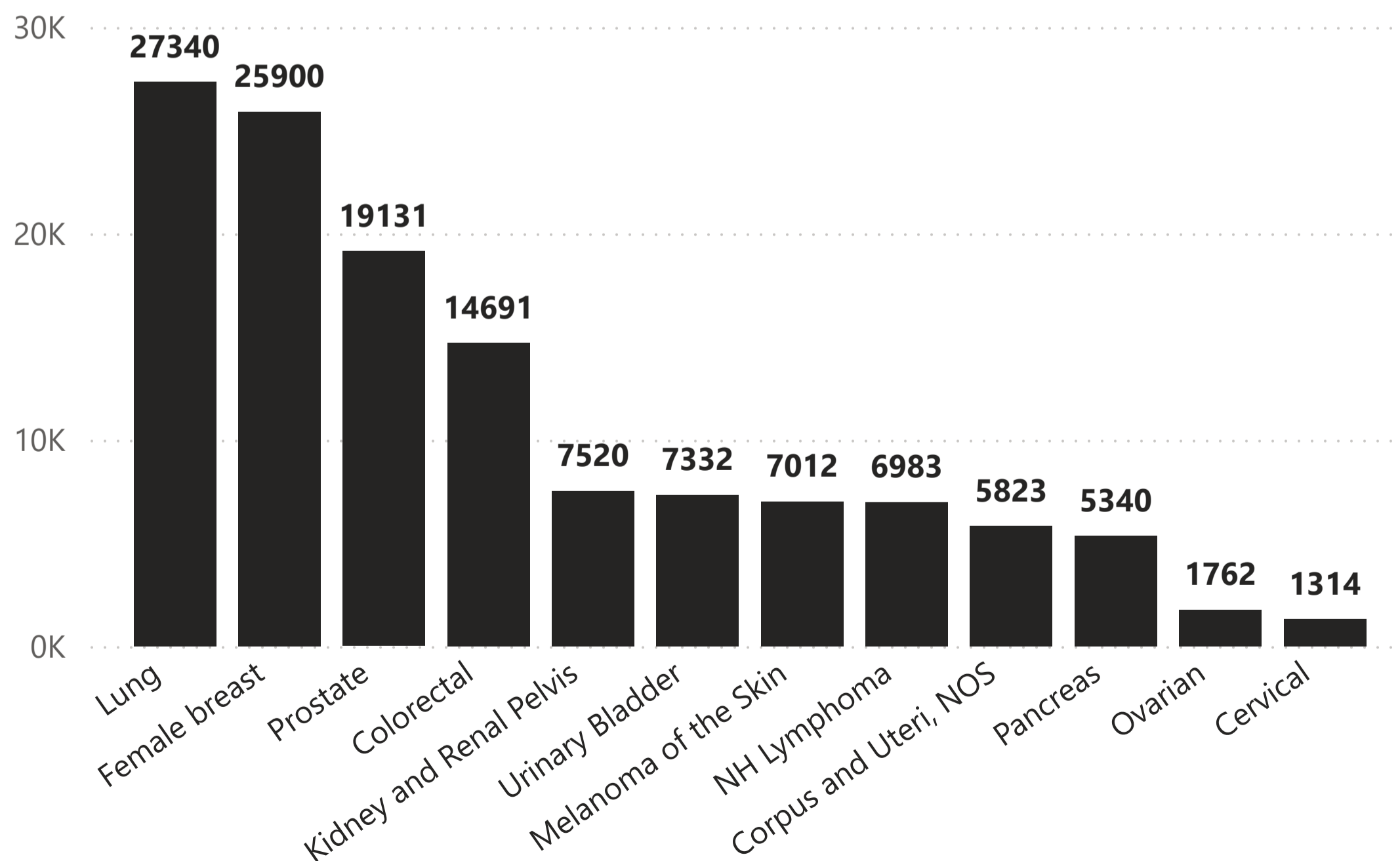
of the total women with age between 21-65 years had a PAP (Papanicolaou) test in the past 3 years as a method for **Cervical cancer** screening, according to BRFSS 2020

TOP 10 CANCER SITES IN MISSOURI

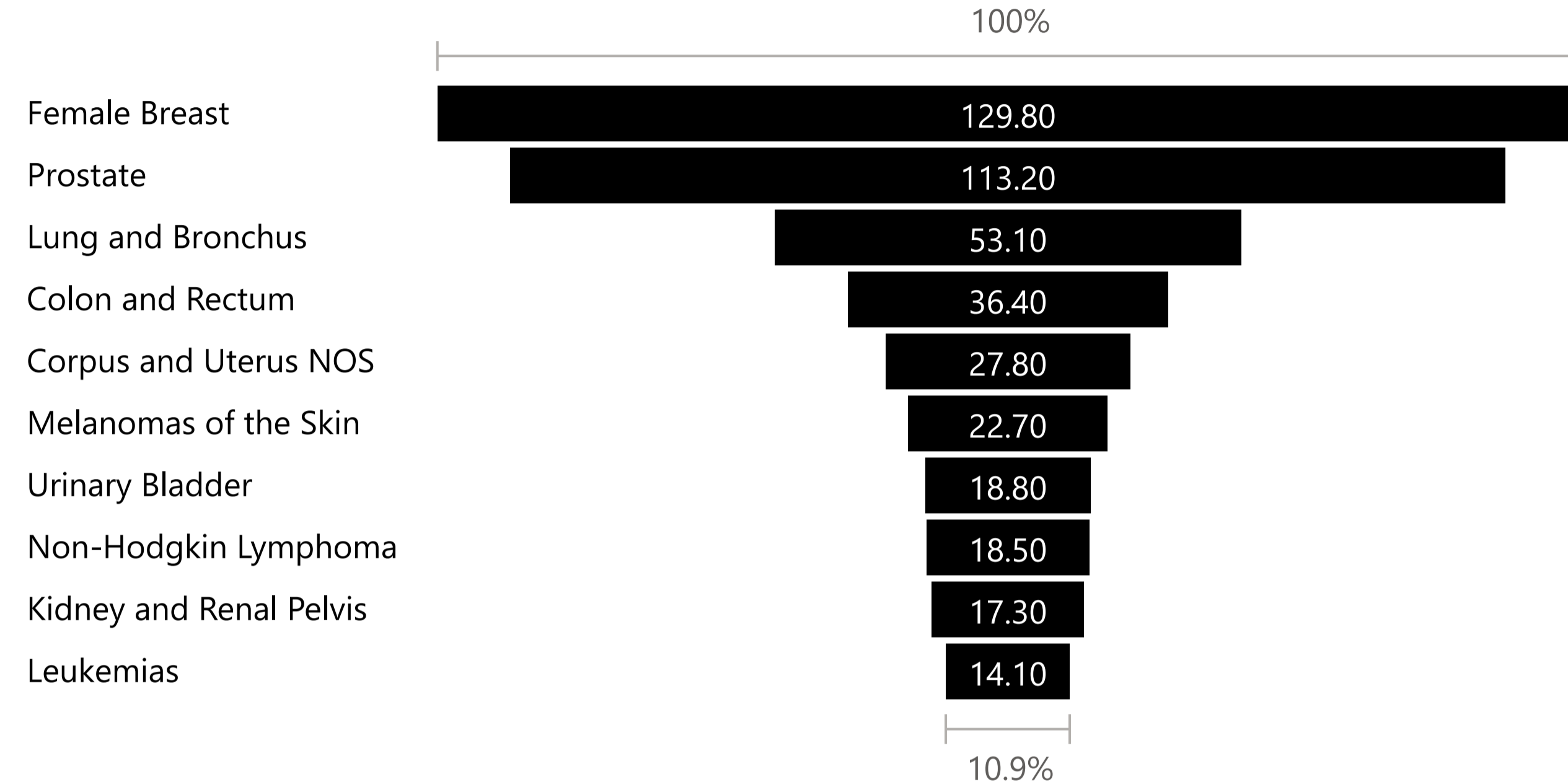
The bar graph below details the Top 10 cancer sites in Missouri. Lung, Prostate, Female breast, and Colorectal matches with the Top 10 cancer sites in U.S. Cancer of Kidney and Renal Pelvis contributes in Top 5 cancer sites in Missouri but it is not present in Top 10 cancer sites in US. Leukemias are prevalent in US but does not contribute to Top 10 sites in Missouri.

Source: Missouri Cancer Registry data

TOP 10 CANCER SITES IN MISSOURI 2017-2021



TOP 10 CANCER SITES IN UNITED STATES 2017-2021



The funnel diagram above illustrates the incidence rate of top 10 cancer sites in the United States, ranked in decreasing order of prevalence.

Female-centric cancers such as Female breast cancer, and Corpus and Uteri, NOS are most common cancers among females, whereas male-centric cancer such as Prostate is the most common cancer site among men.

Lung and Bronchus, Colon and Rectum, and Melanoma of skin ranks within the top five cancer sites in many states.

Source: USCS data visualization

LUNG CANCER IN MISSOURI

Incidence rate 2017-2021

27340

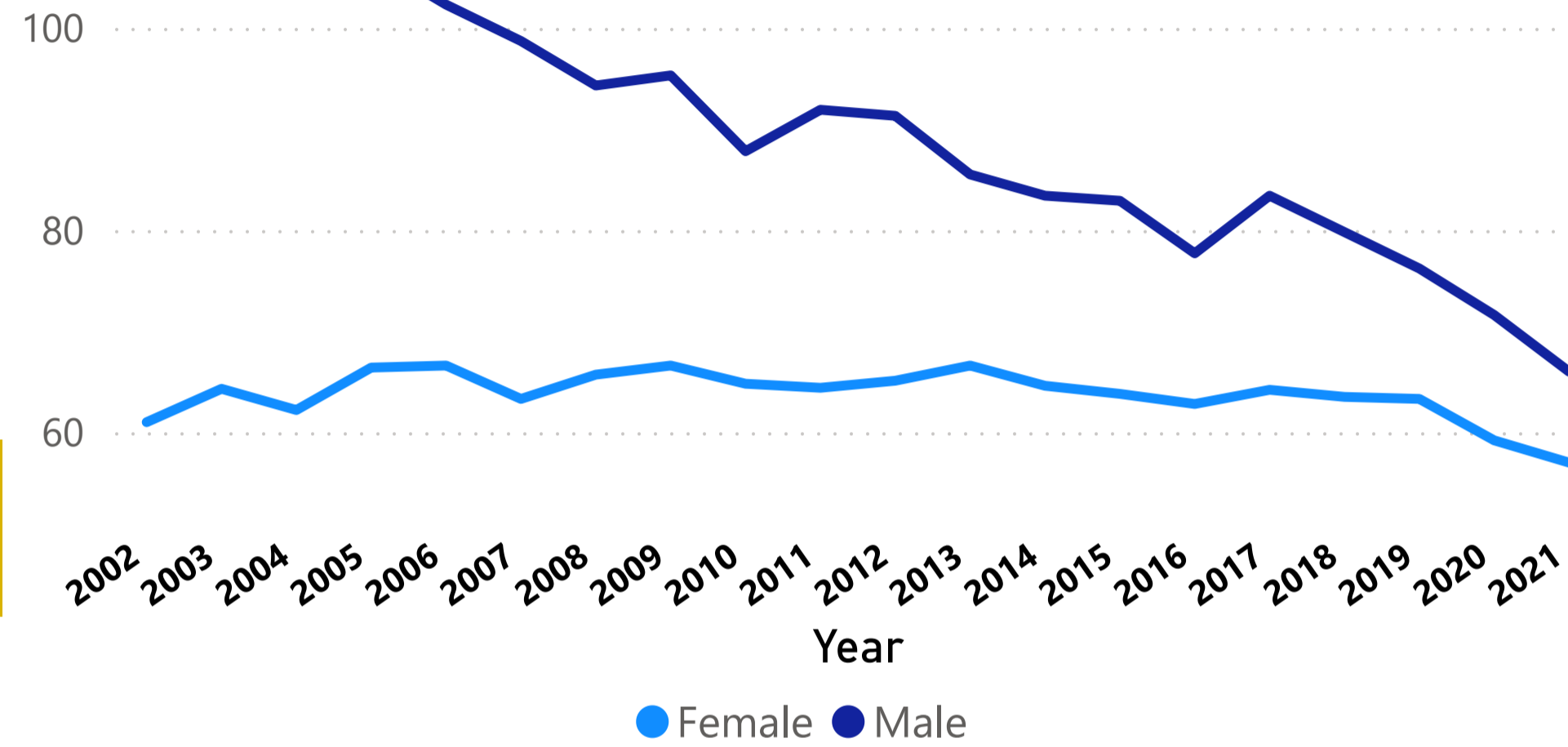
lung cancer survivors
2017-2021

15284

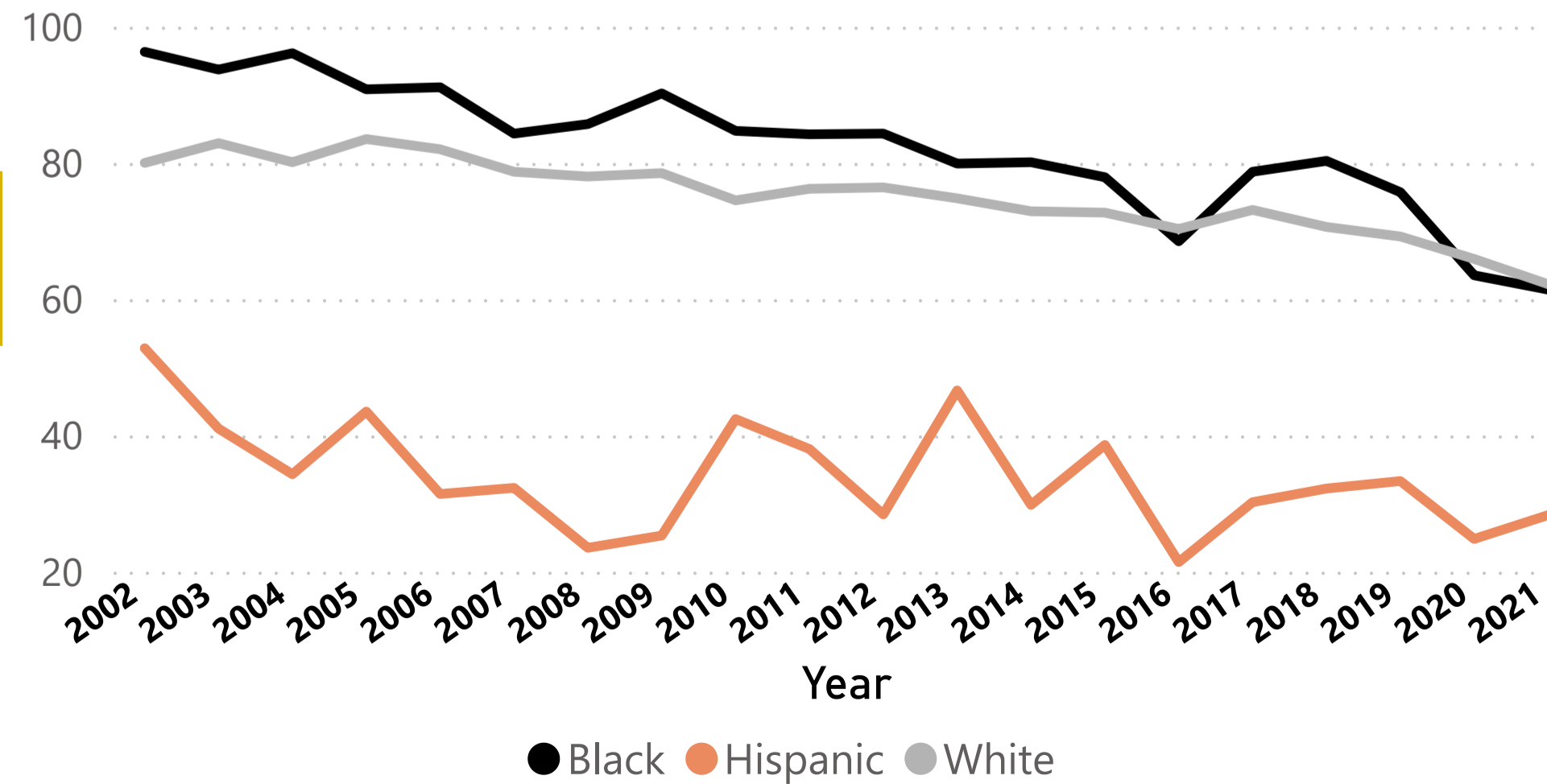
Ranked in the death rate
in the US

7

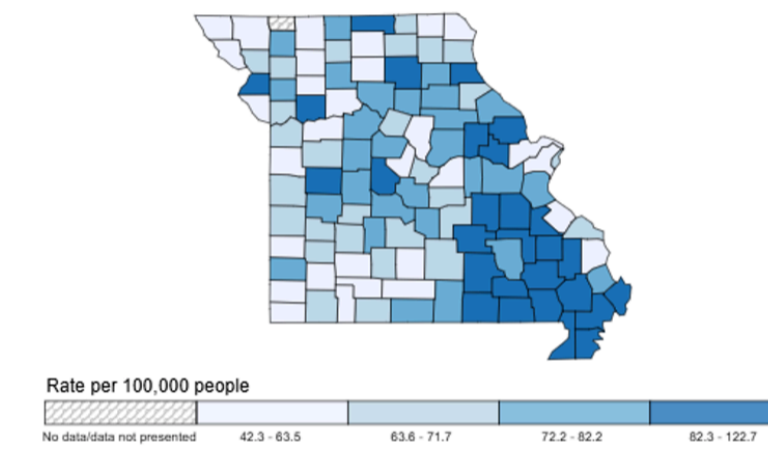
10 year Age-adjusted Incidence rate in Missouri By Sex



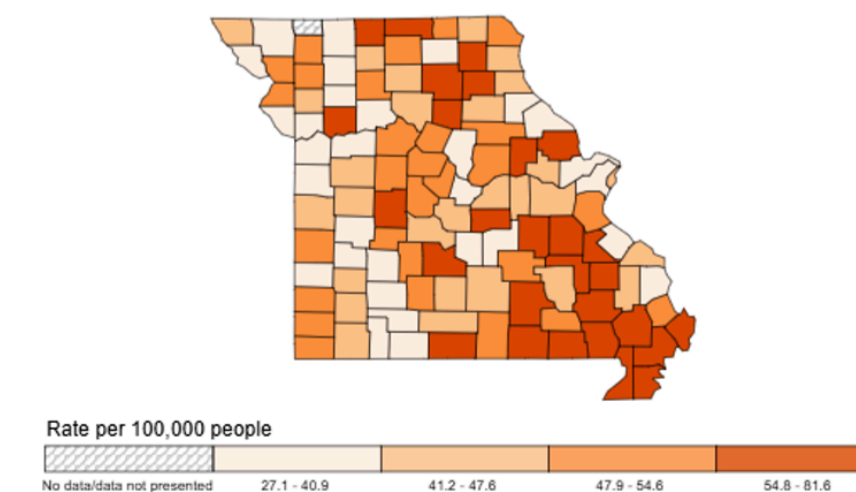
10 year Age-adjusted Incidence rate in Missouri By Race



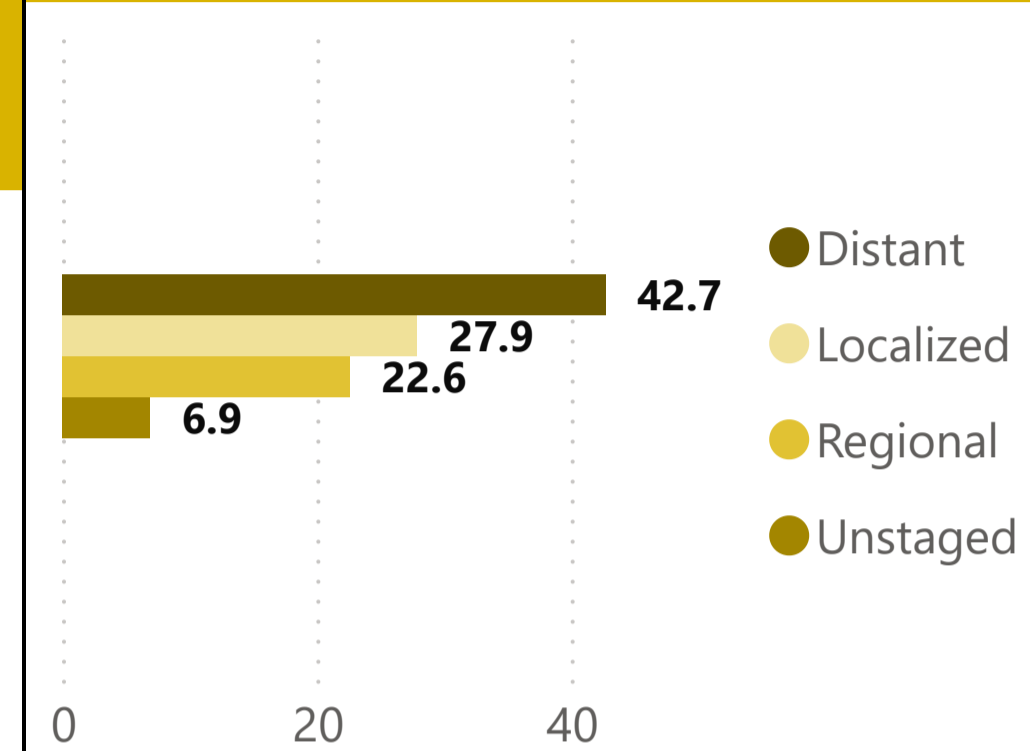
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



75.2

Incidence rate 2017-2021



61.4

FEMALE BREAST CANCER IN MISSOURI

Incidence rate 2017-2021

25900

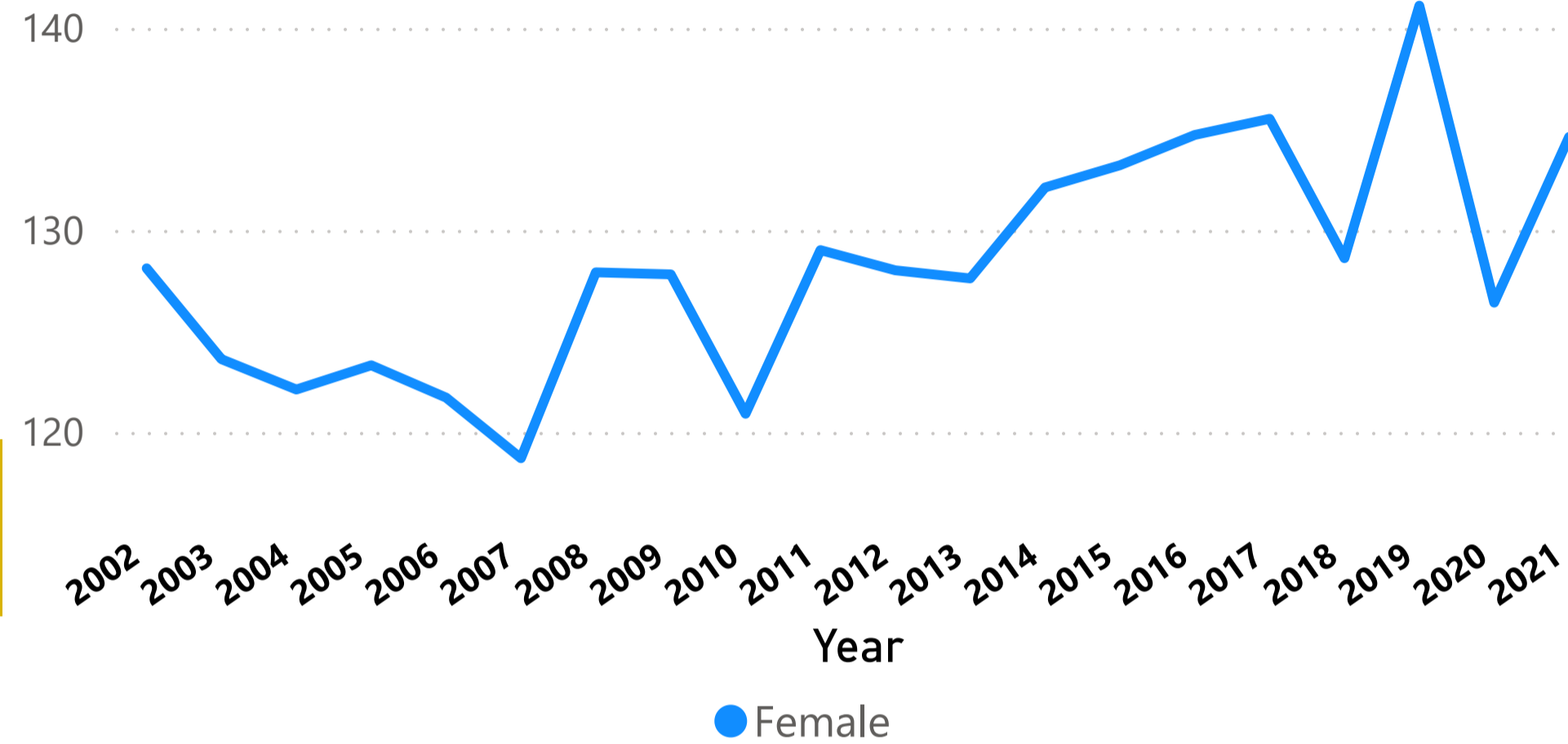
Female Breast cancer survivors 2017-2021

58533

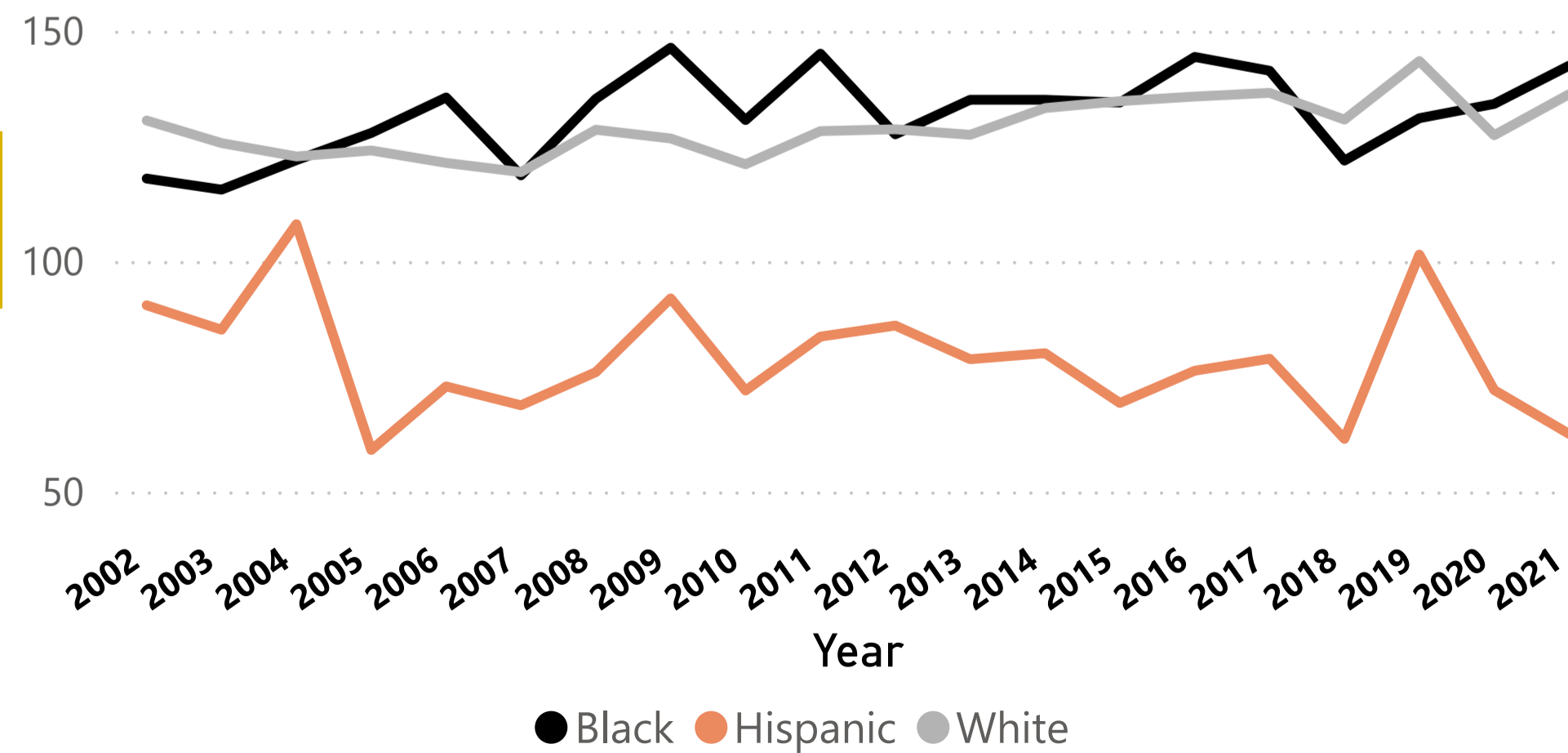
Rank in the death rate in the US

21

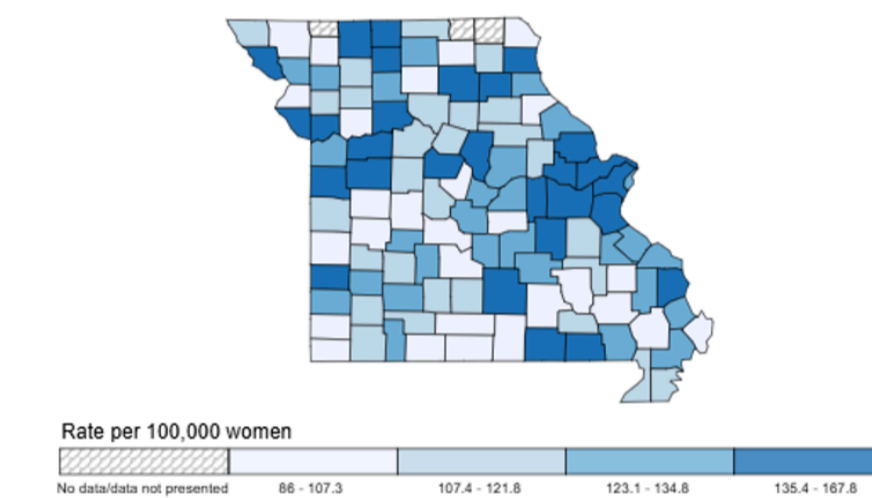
10 year Age-adjusted Incidence rate in Missouri By Sex



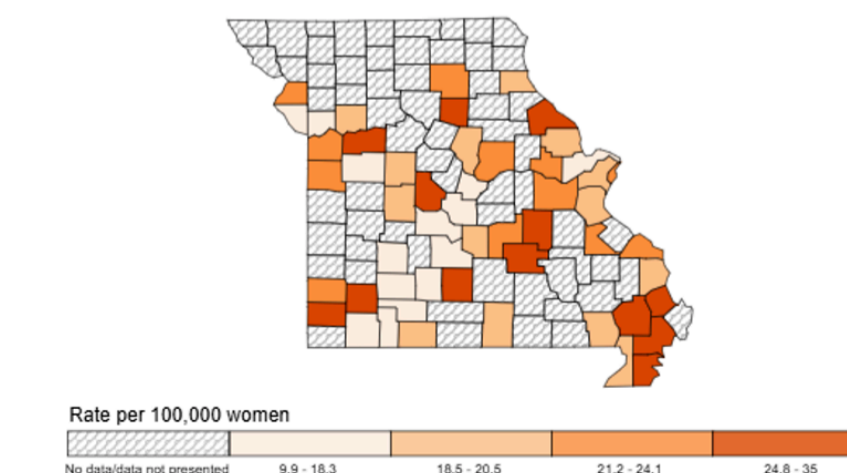
10 year Age-adjusted Incidence rate in Missouri By Race



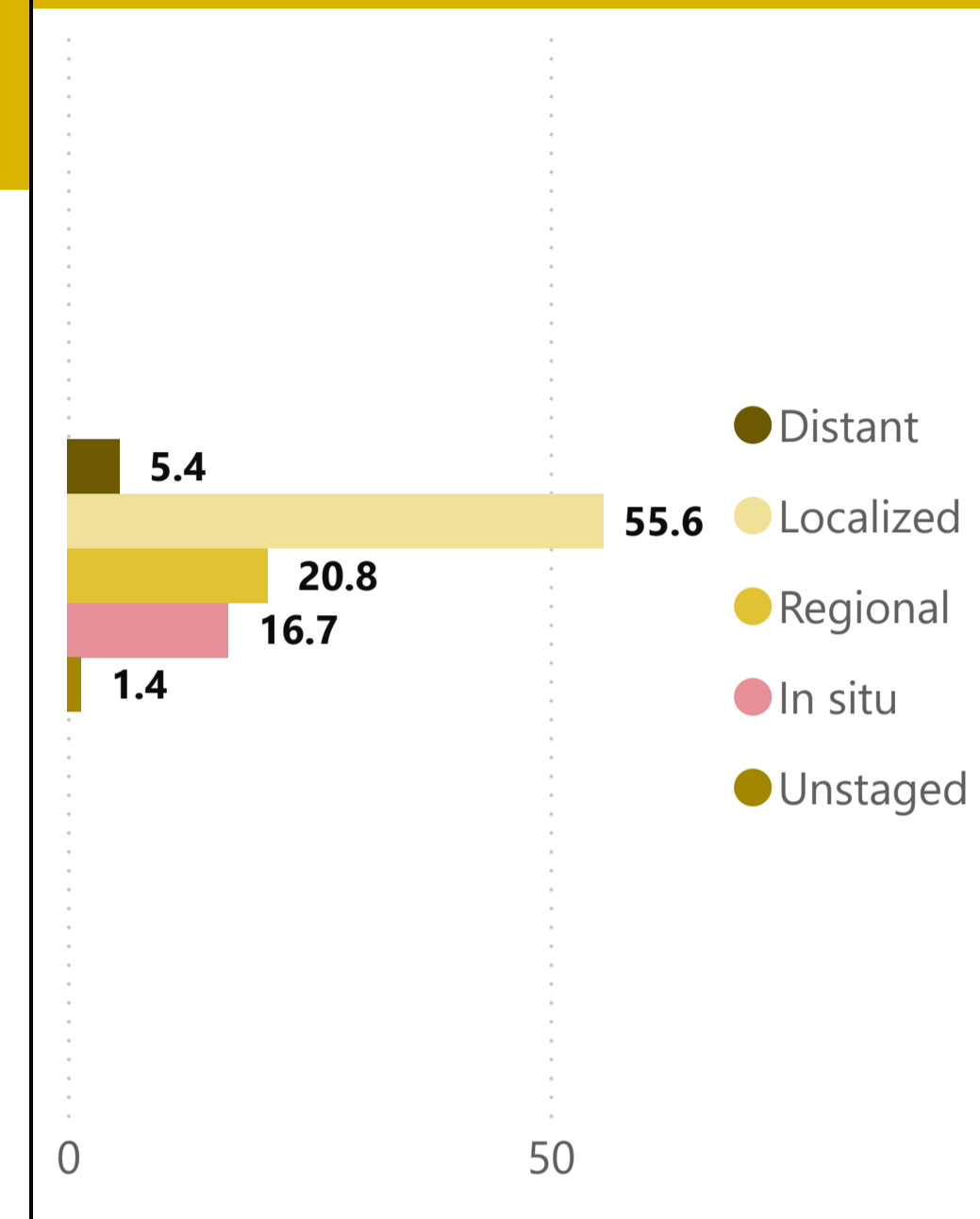
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



133.2

PROSTATE CANCER IN MISSOURI

Incidence rate 2017-2021

19131

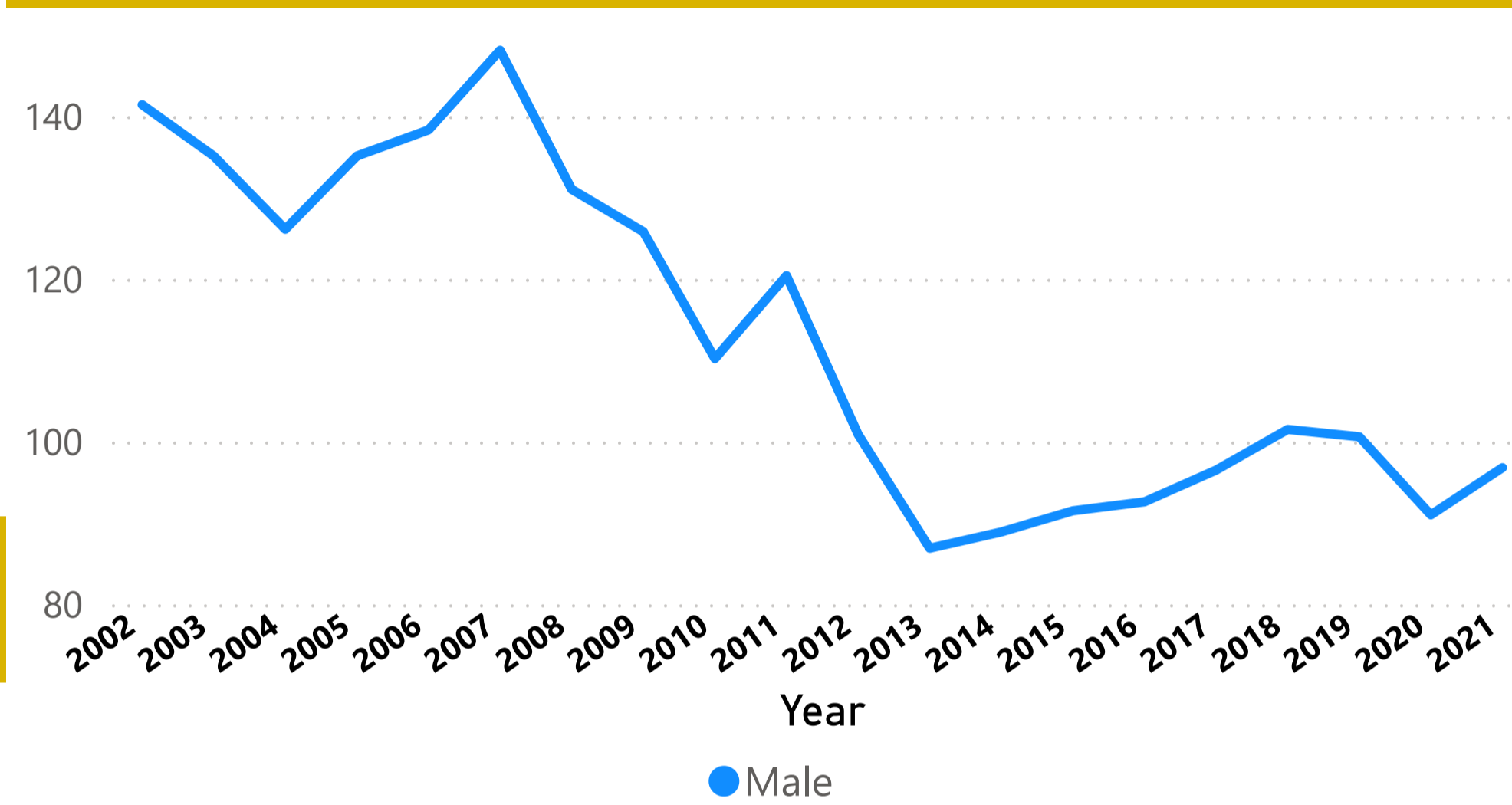
Prostate cancer survivors 2017-2021

48497

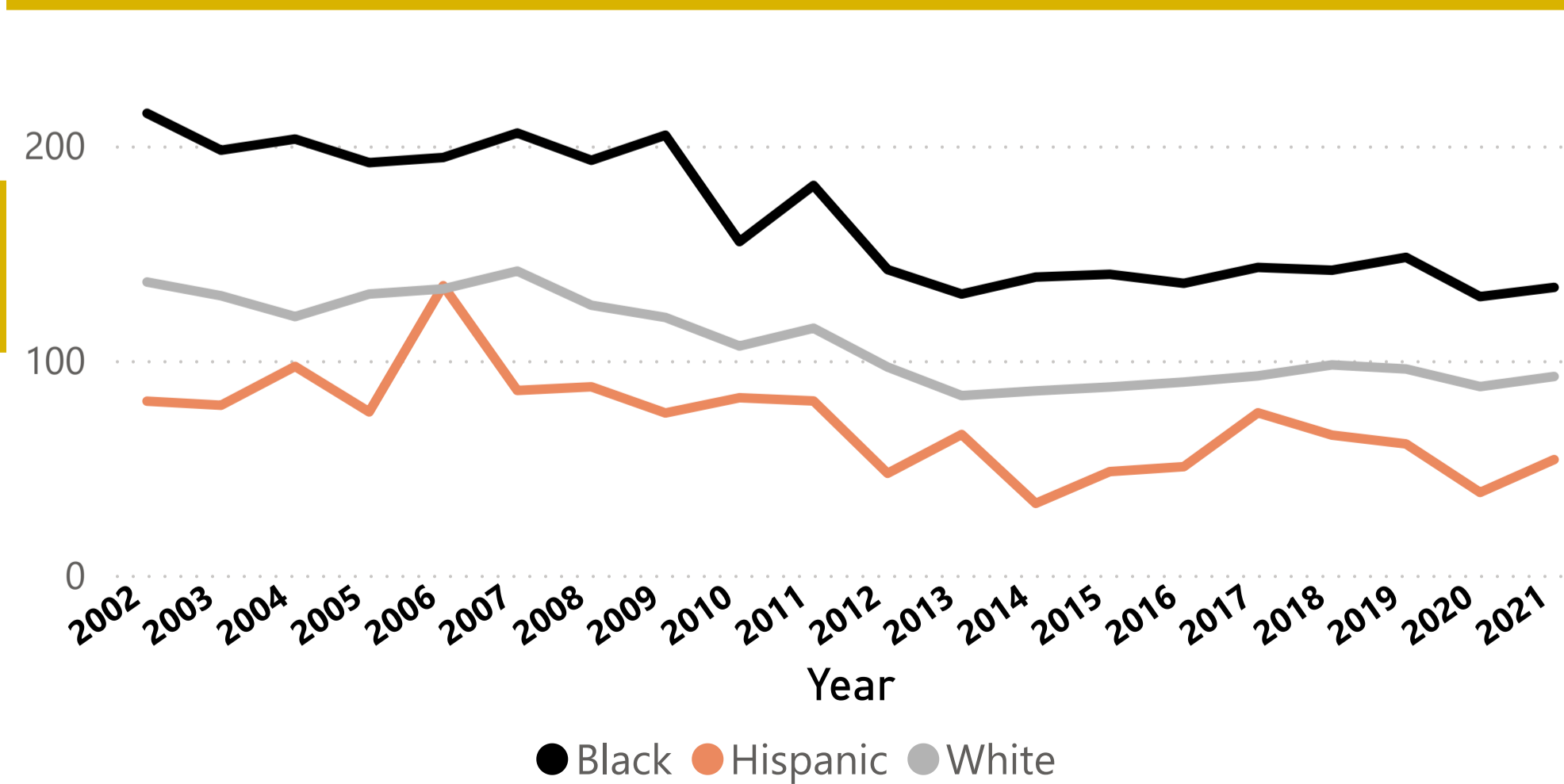
Ranked in the death rate in the US

42

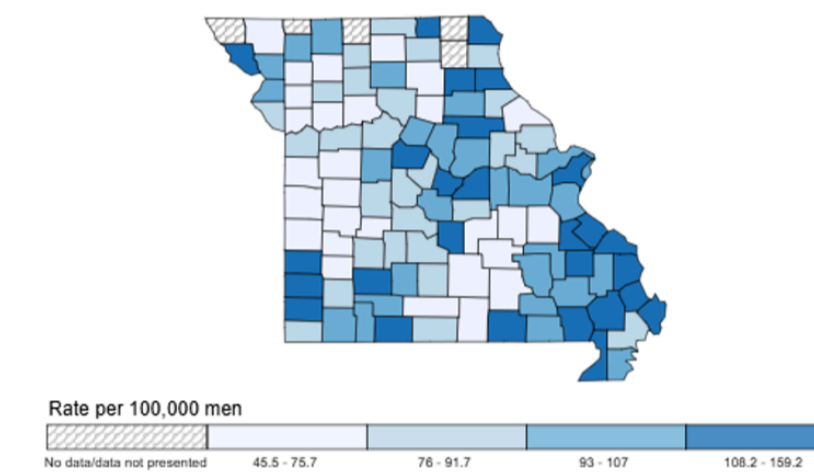
10 year Age-adjusted Incidence rate in Missouri By Sex



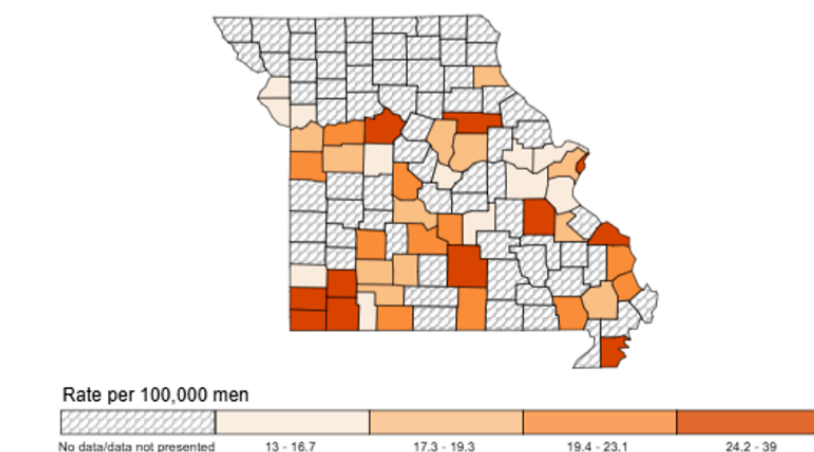
10 year Age-adjusted Incidence rate in Missouri By Race



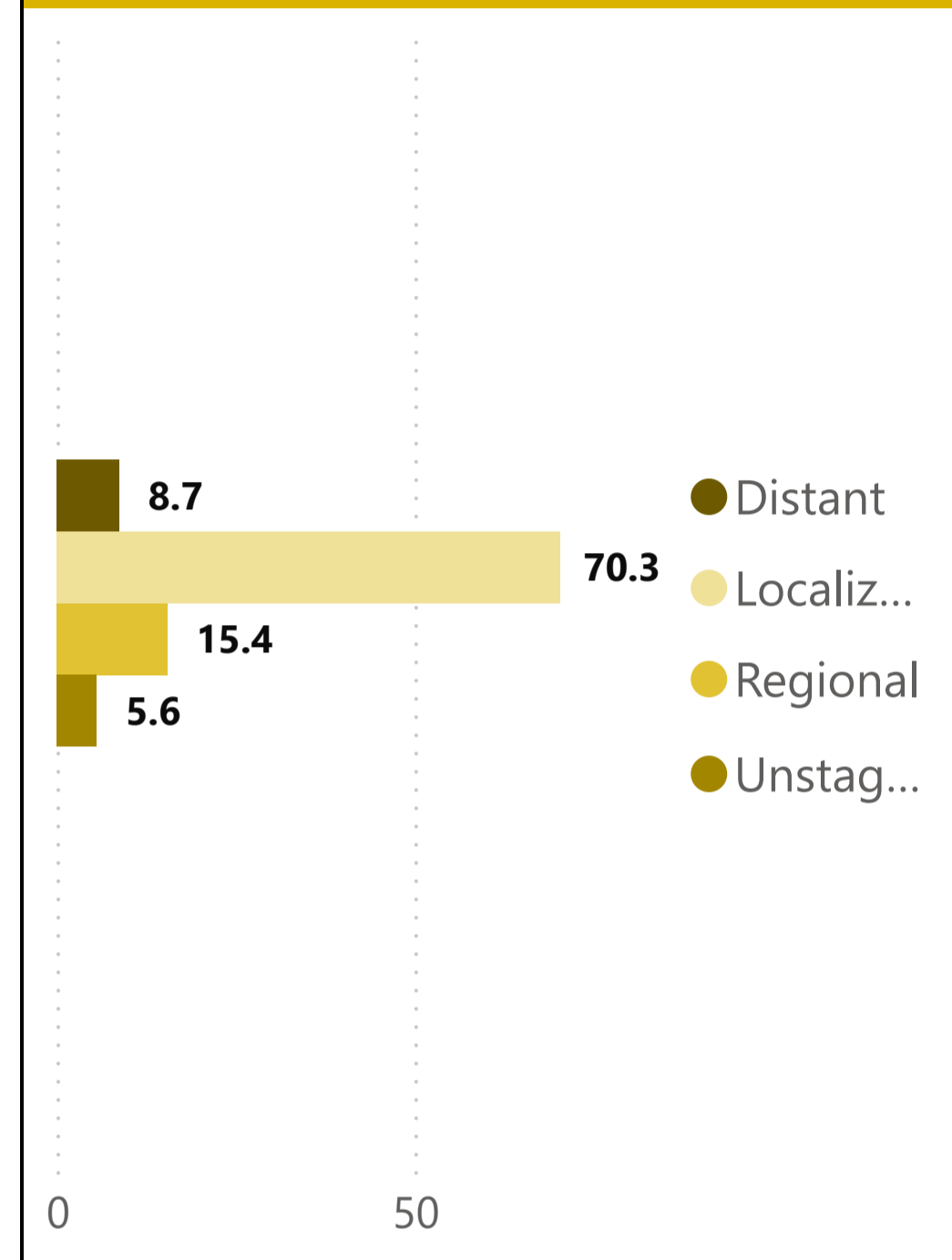
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021

97.3

COLON & RECTUM CANCER IN MISSOURI

Incidence rate 2017-2021

14691

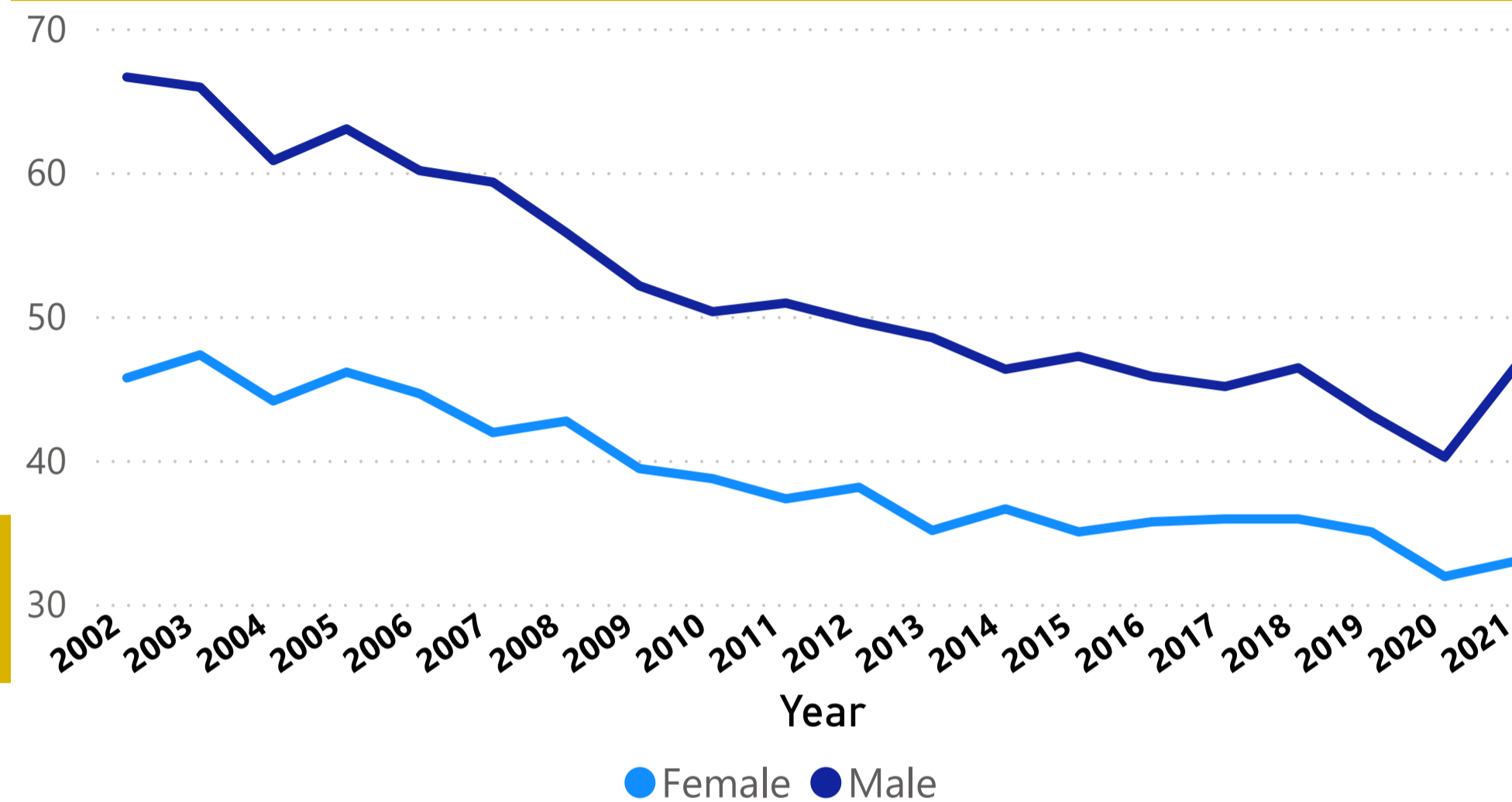
ColoRectal cancer survivors 2017-2021

23375

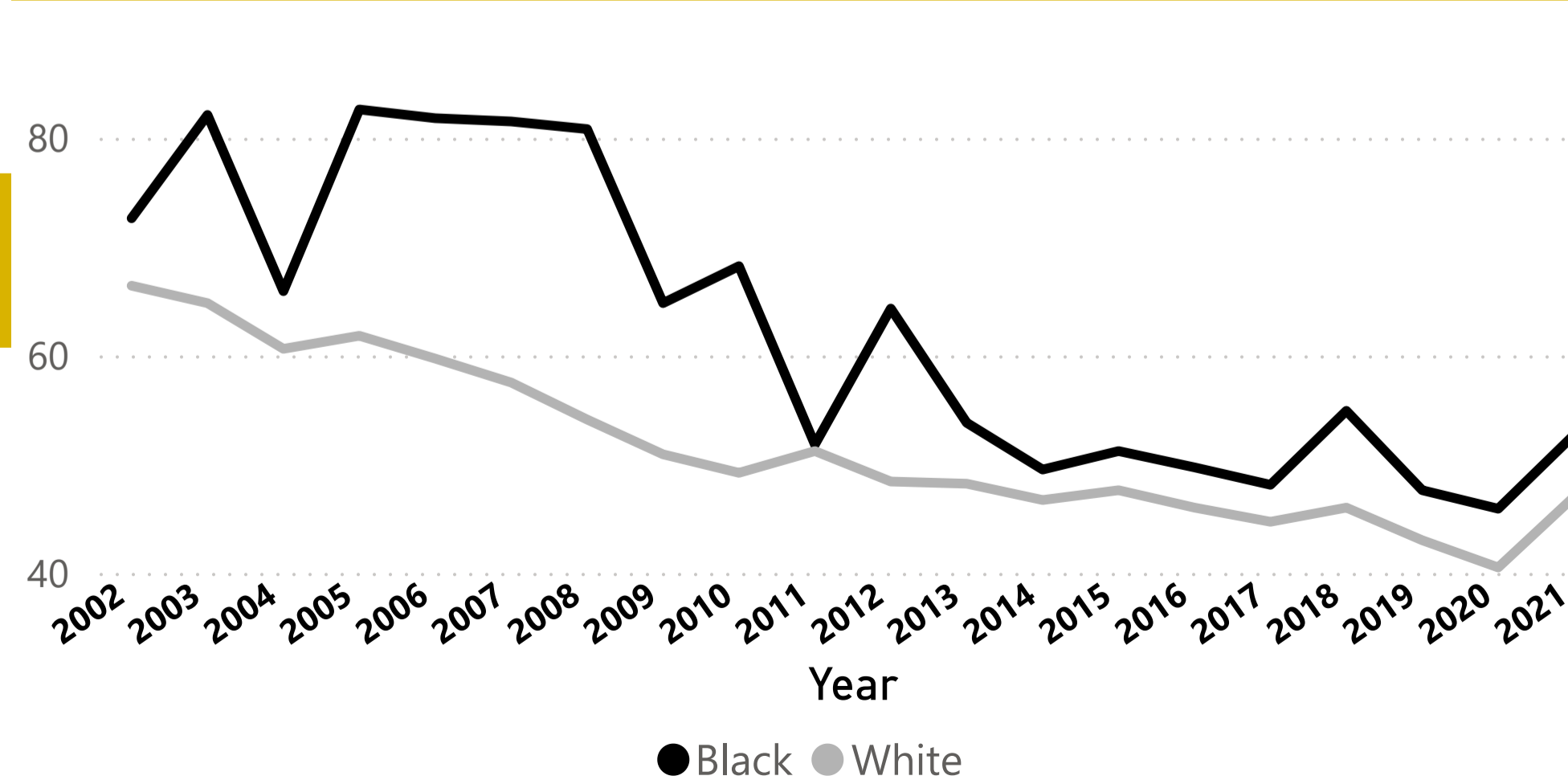
Ranked in the death rate in the US

12

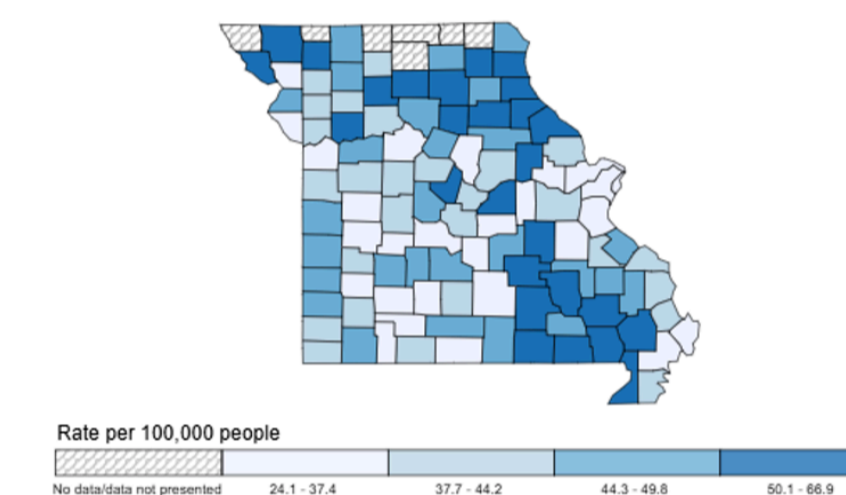
10 year Age-adjusted Incidence rate in Missouri By Sex



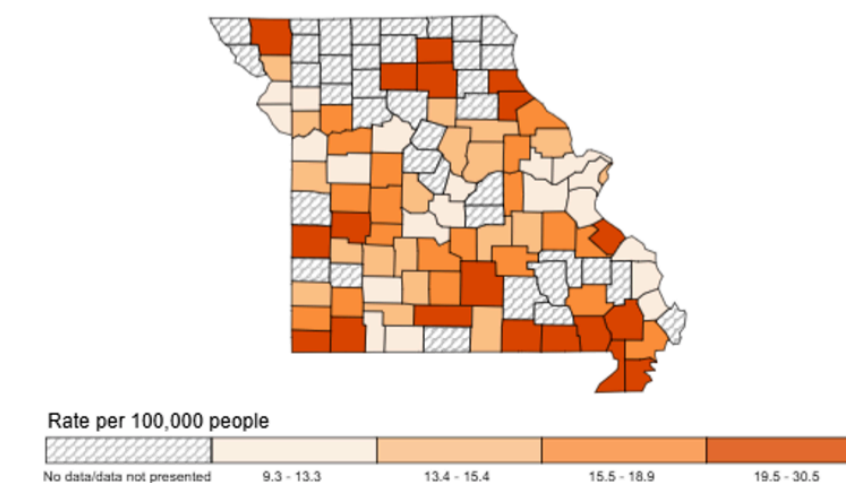
10 year Age-adjusted Incidence rate in Missouri By Race



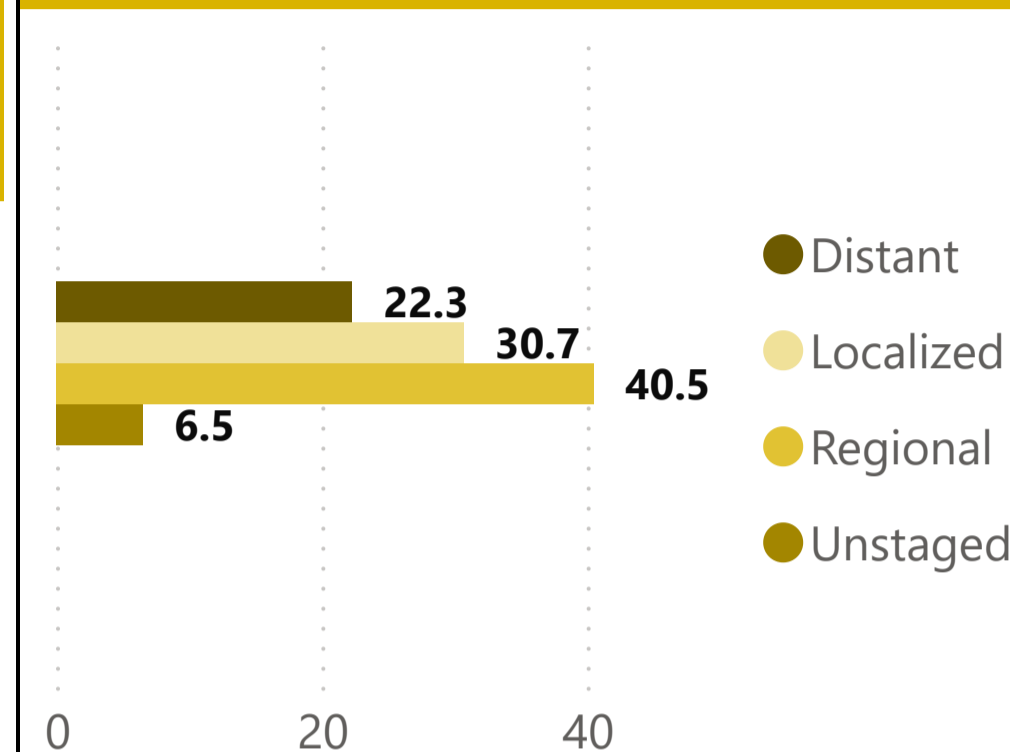
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



44.3

Incidence rate 2017-2021



34.3

KIDNEY & RENAL PELVIS CANCER IN MISSOURI

Incidence rate 2017-2021

7520

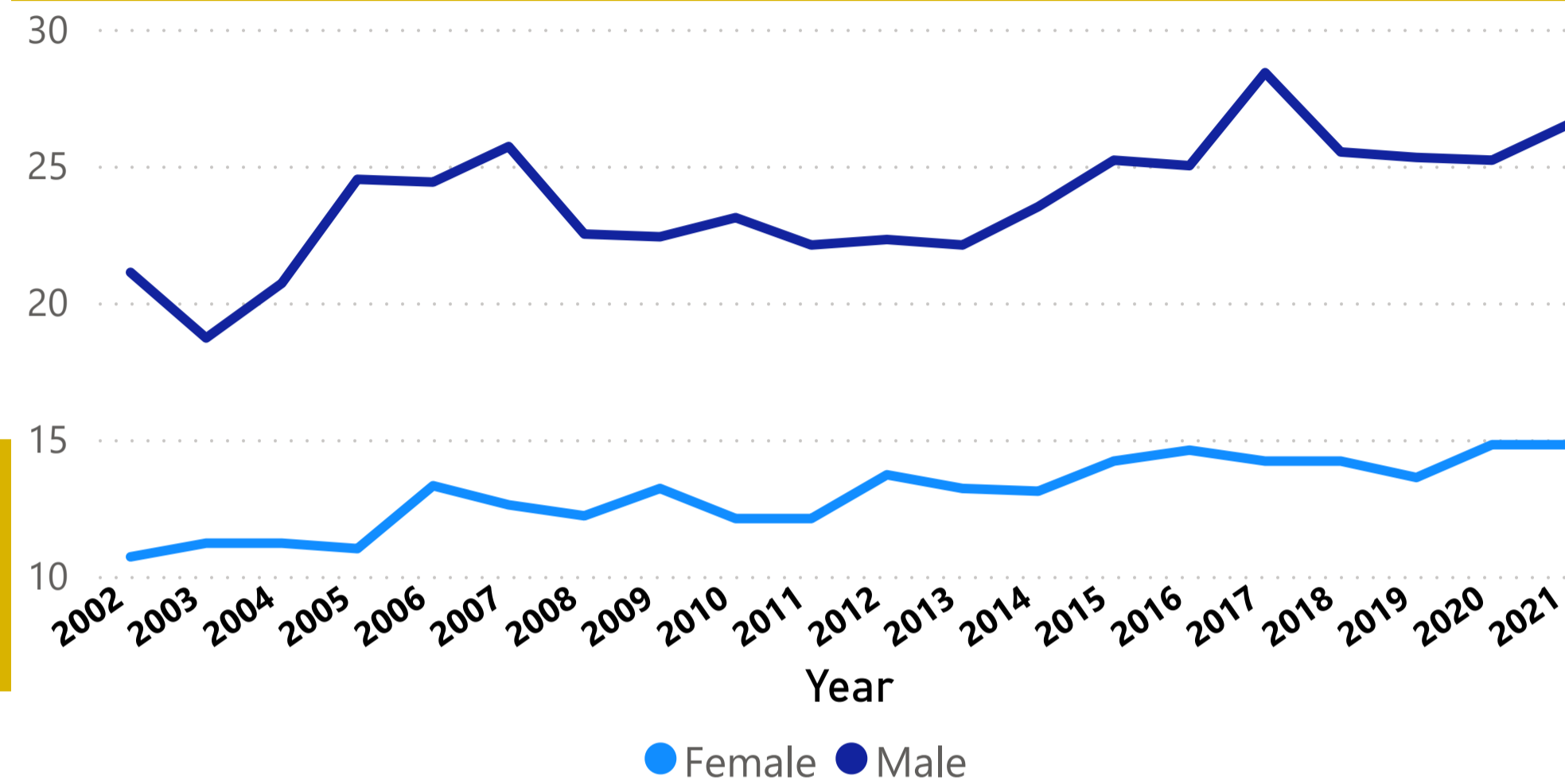
Kidney & Renal Pelvis cancer survivors 2017-2021

12271

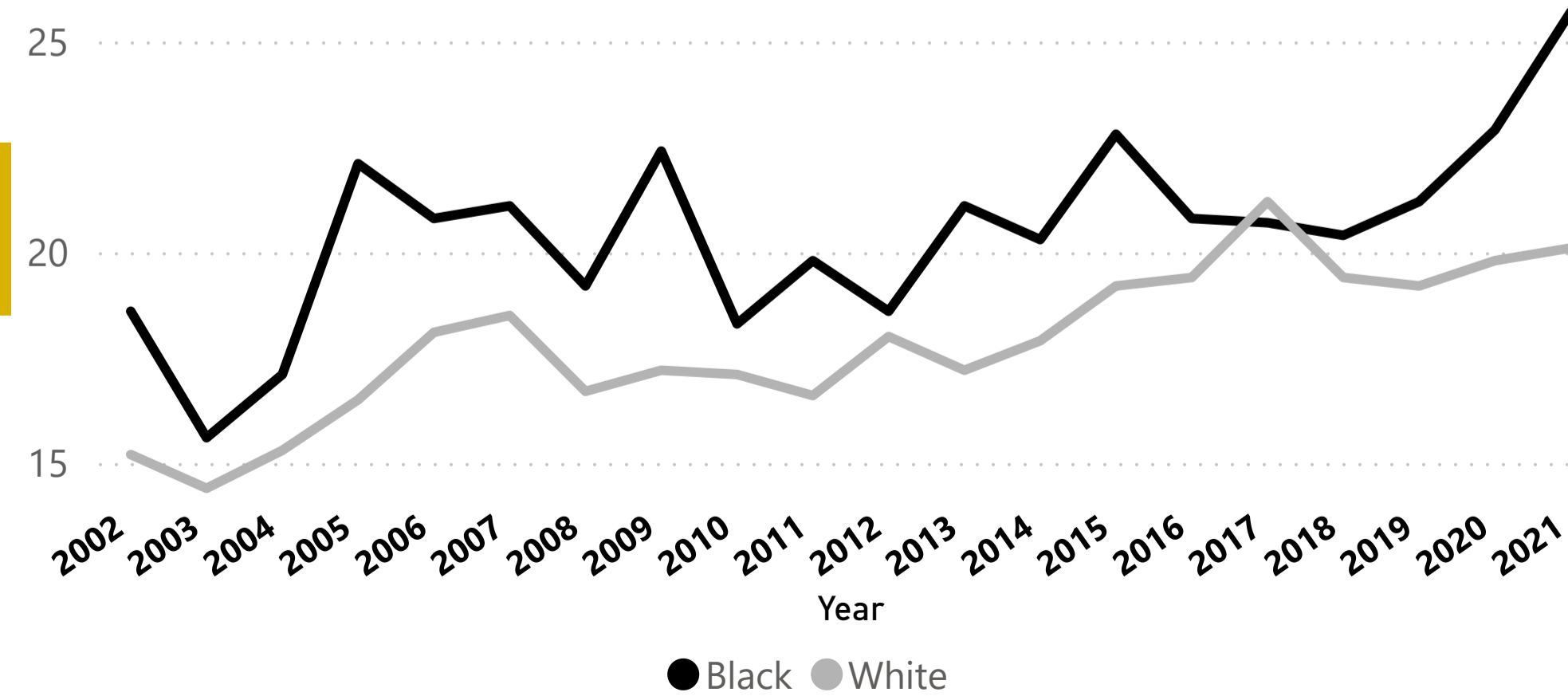
Ranked in the death rate in the US

12

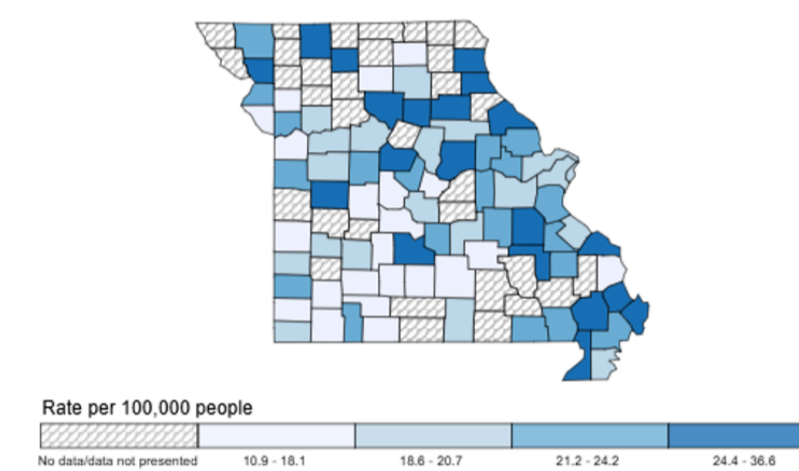
10 year Age-adjusted Incidence rate in Missouri By Sex



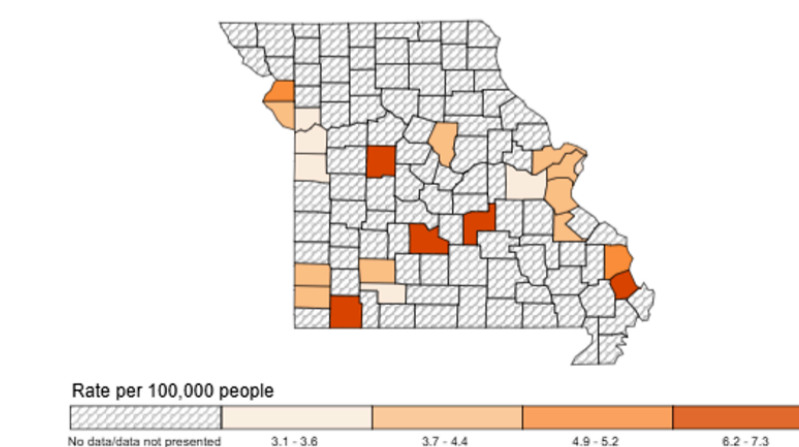
10 year Age-adjusted Incidence rate in Missouri By Race



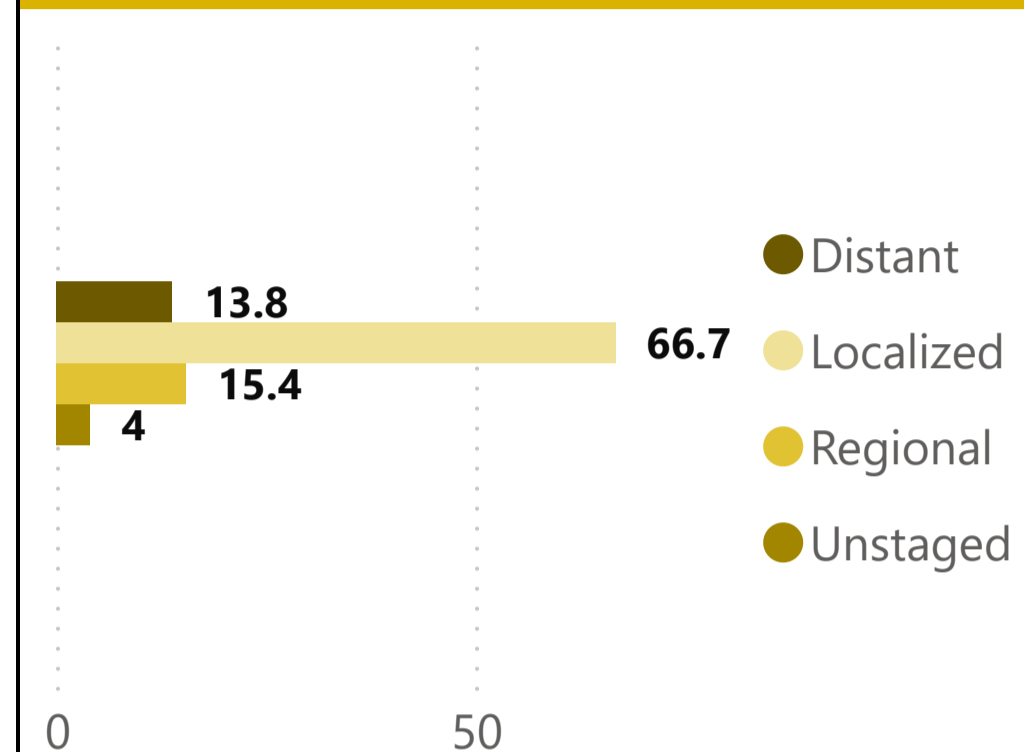
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



26.2

Incidence rate 2017-2021



14.3

URINARY BLADDER CANCER IN MISSOURI

Incidence rate 2017-2021

7332

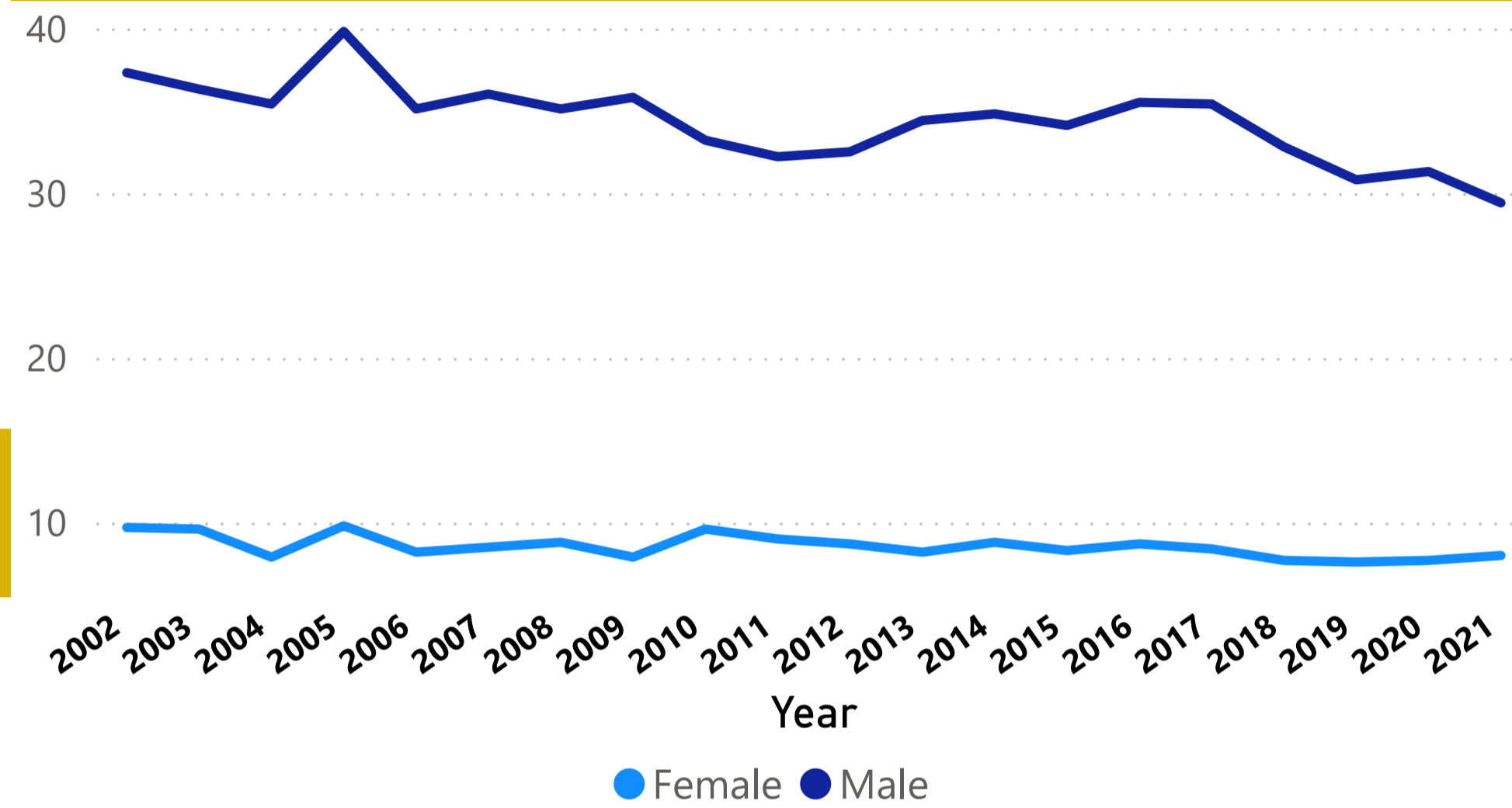
Urinary Bladder cancer survivors 2017-2021

11707

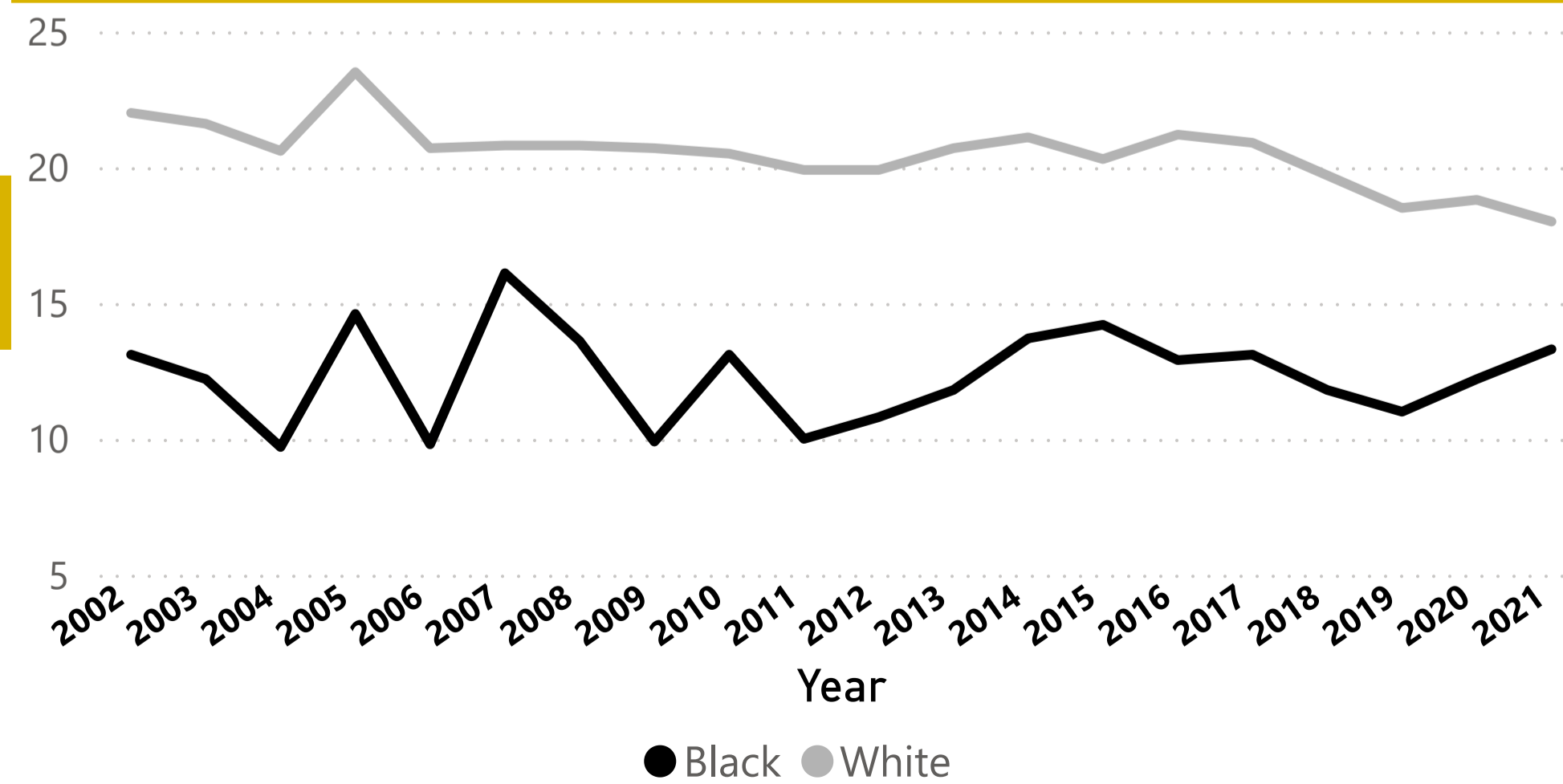
Ranked in the death rate in the US

23

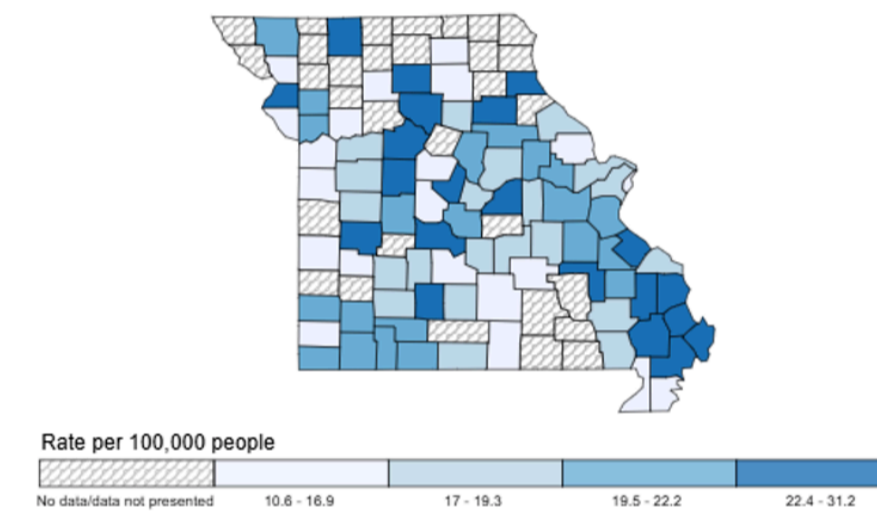
10 year Age-adjusted Incidence rate in Missouri By Sex



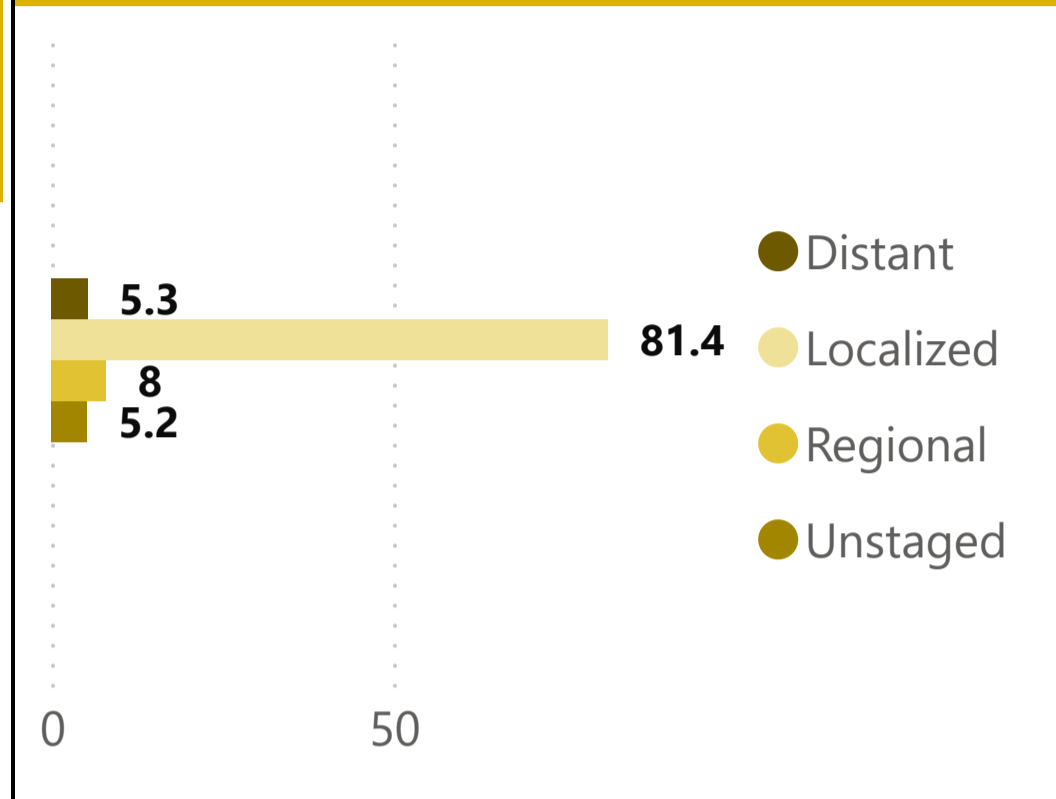
10 year Age-adjusted Incidence rate in Missouri By Race



Incidence rate in Missouri County level 2017-2021



Stage Distribution

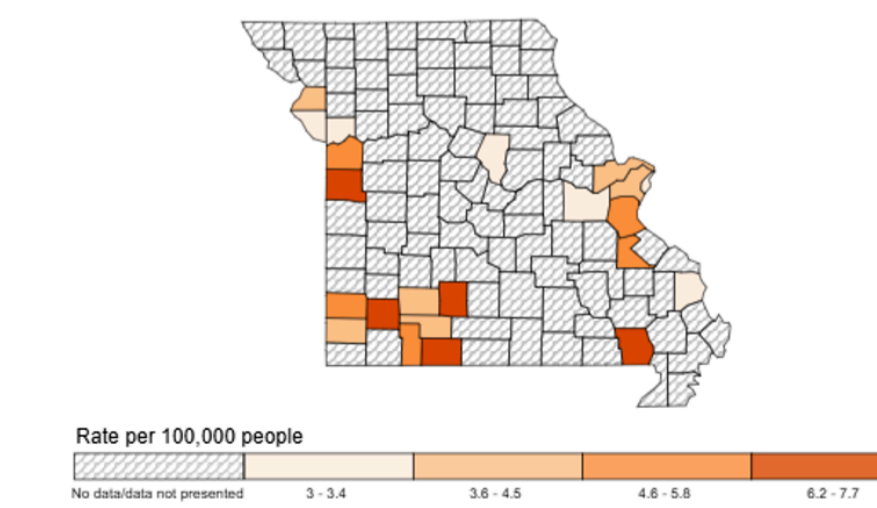


Incidence rate 2017-2021



31.9

Mortality rate in Missouri County level 2018-2022



Incidence rate 2017-2021



7.9

MELANOMA OF SKIN IN MISSOURI

Incidence rate 2017-2021

7012

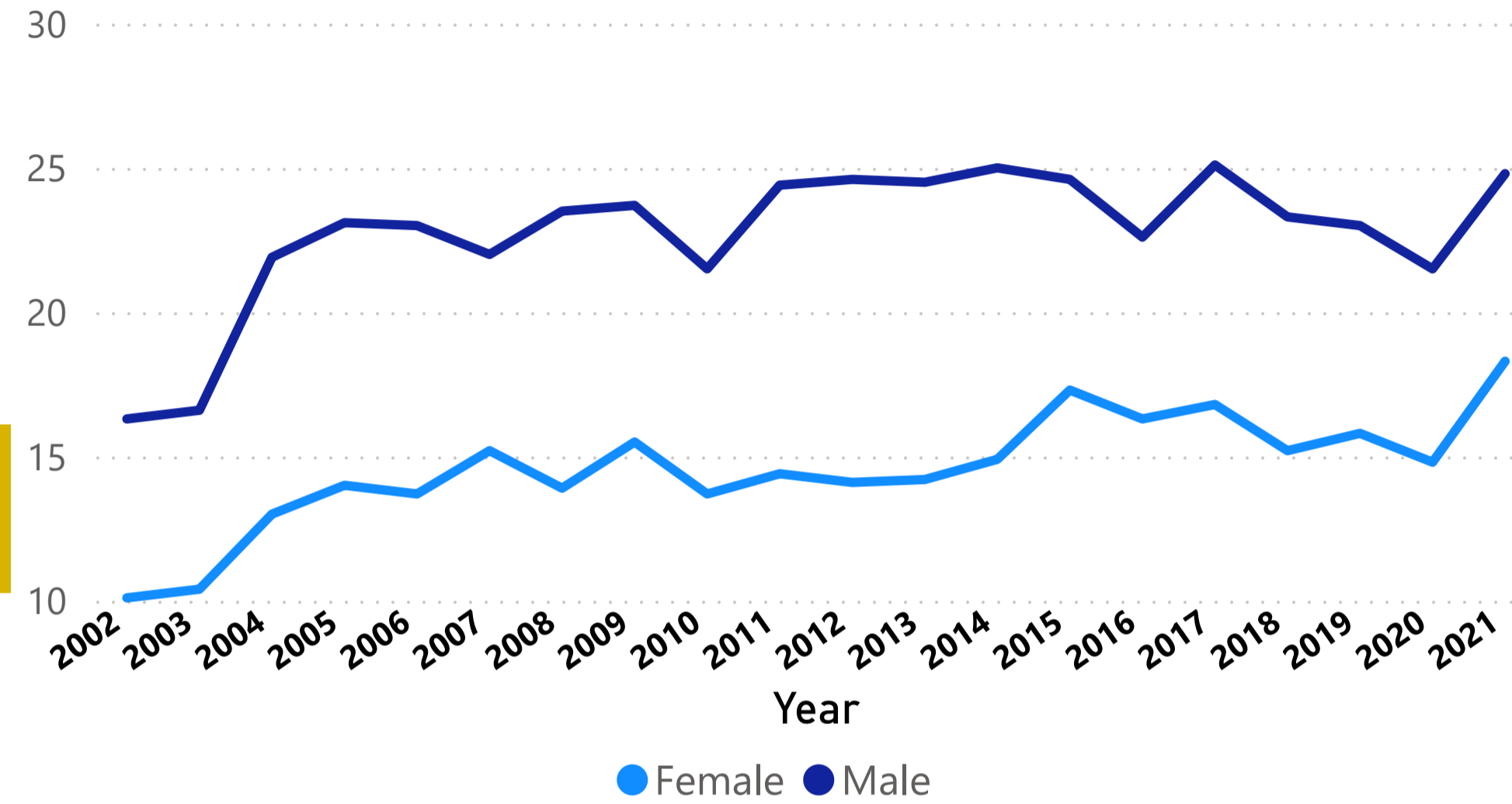
Melanoma survivors 2017-2021

14972

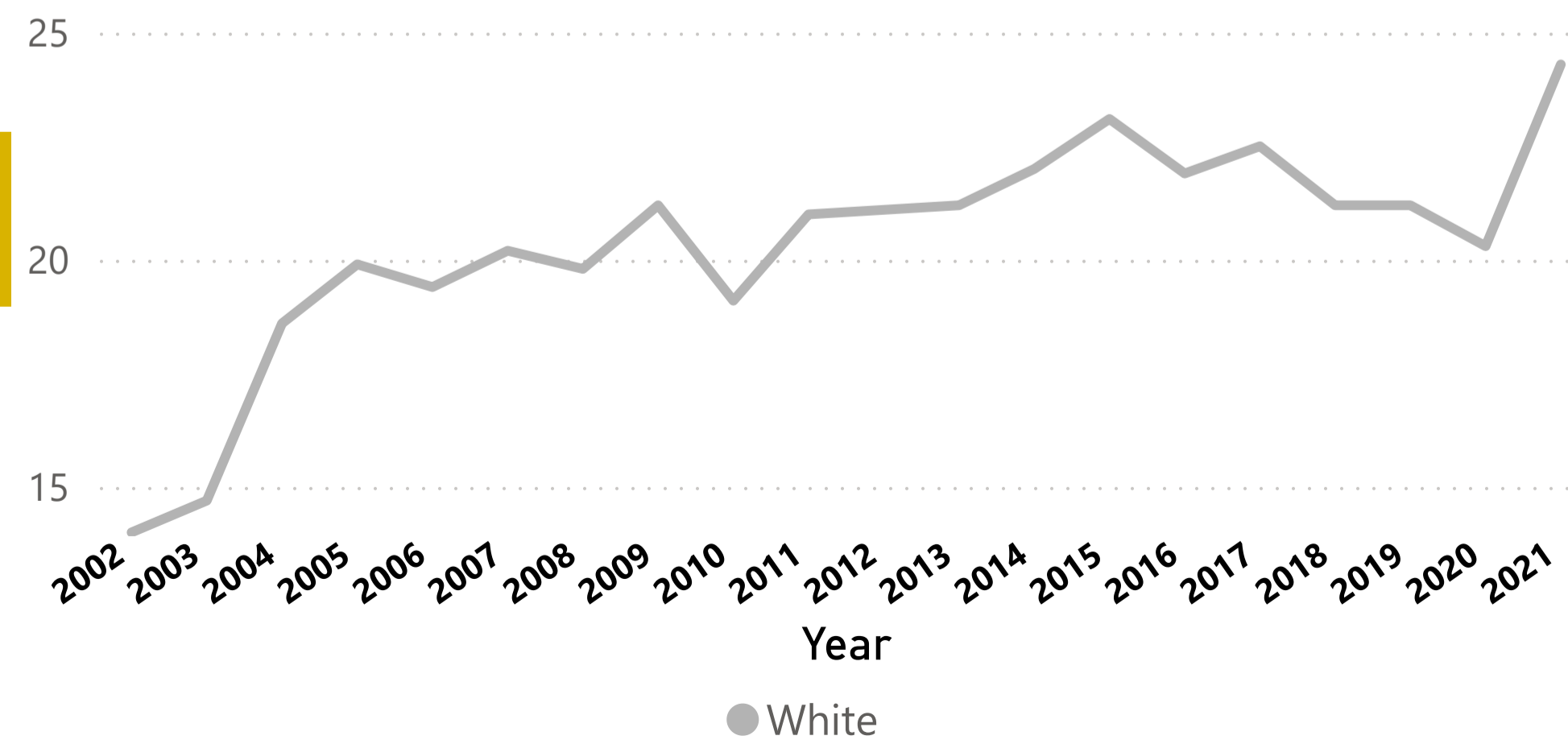
Ranked in the death rate in the US

20

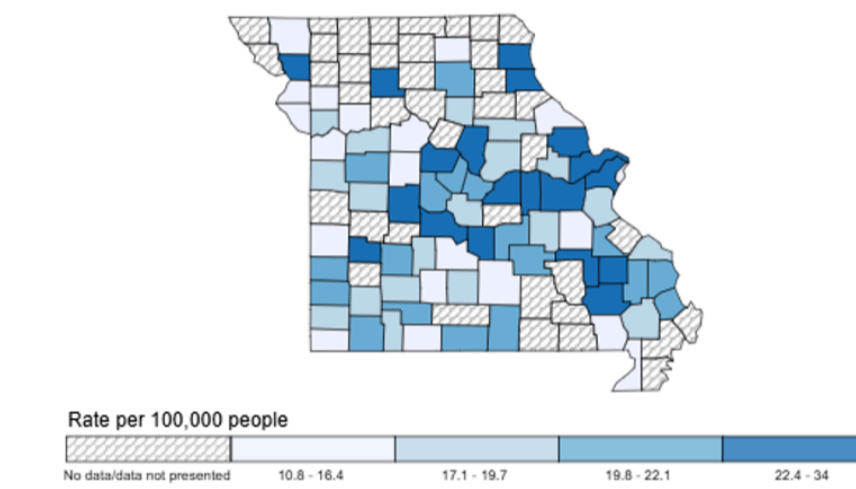
10 year Age-adjusted Incidence rate in Missouri By Sex



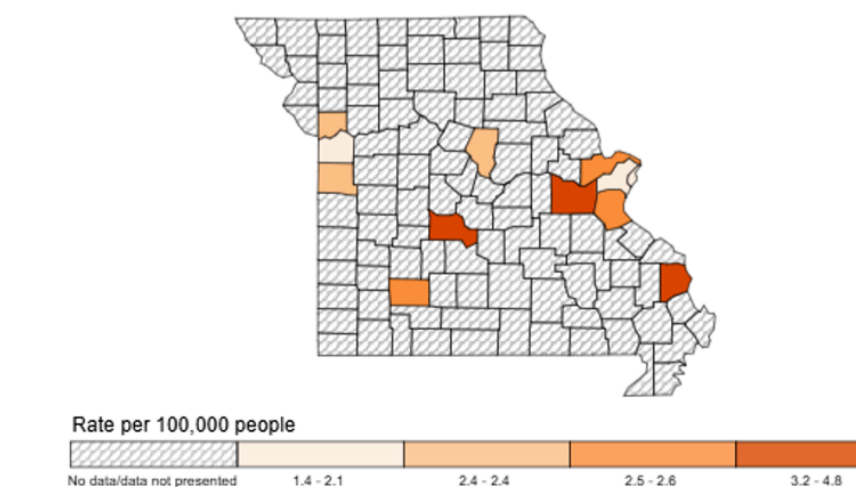
10 year Age-adjusted Incidence rate in Missouri By Race



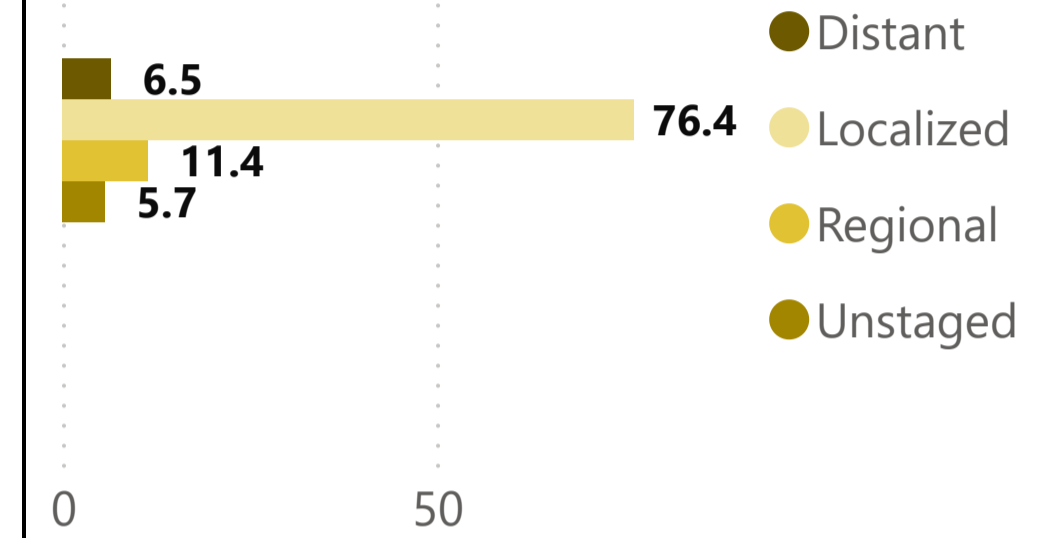
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



23.5

Incidence rate 2017-2021



16.2

NON HODGKIN'S LYMPHOMA IN MISSOURI

Incidence rate 2017-2021

6983

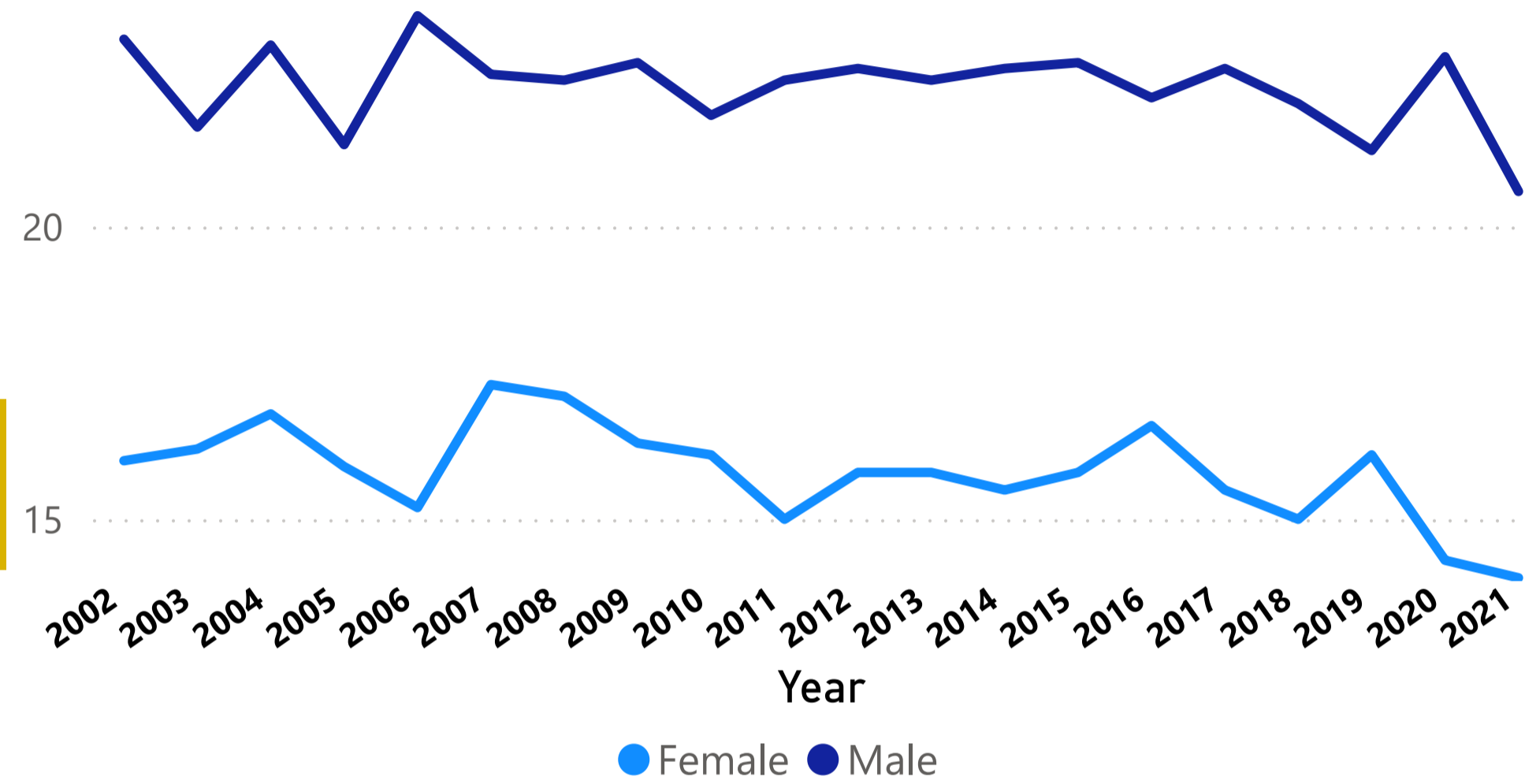
Non Hodgkin's lymphoma survivors 2017-2021

11781

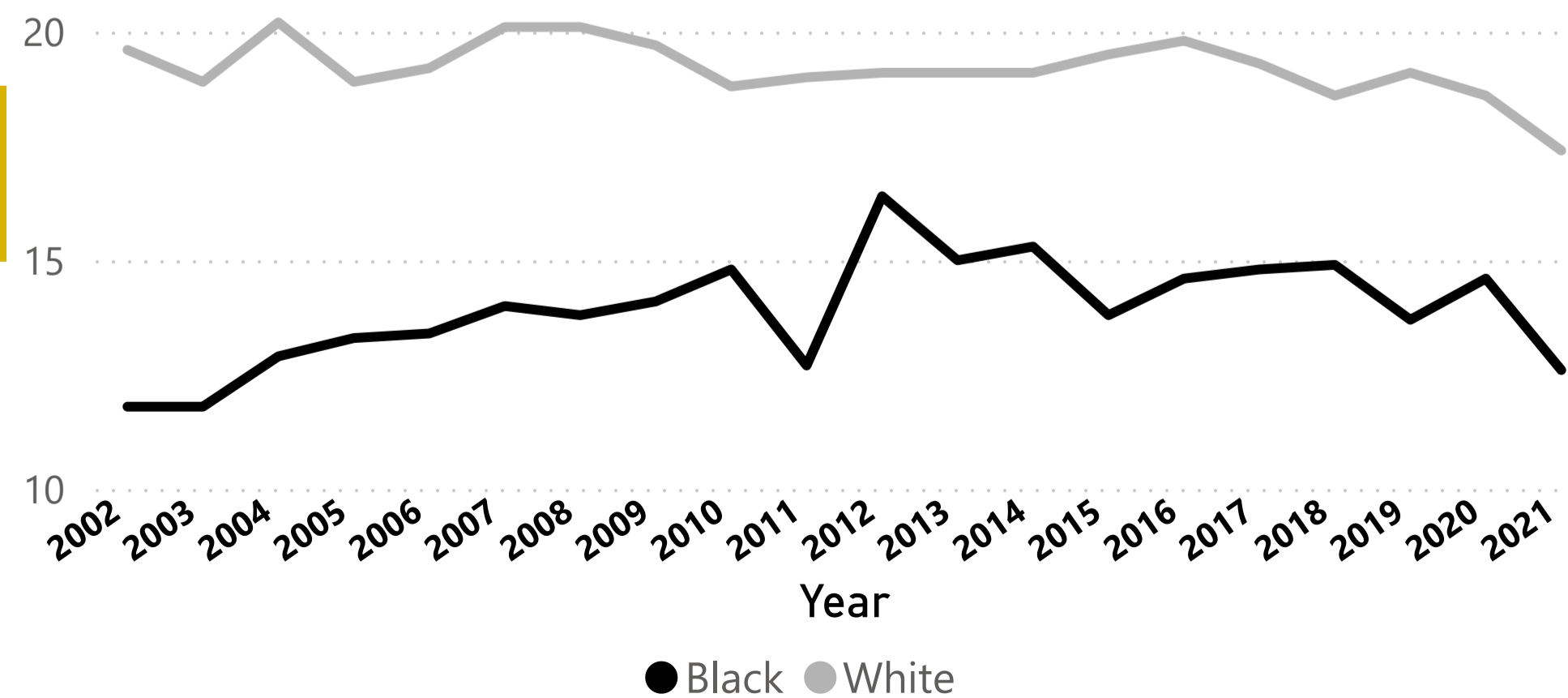
Ranked in the death rate in the US

18

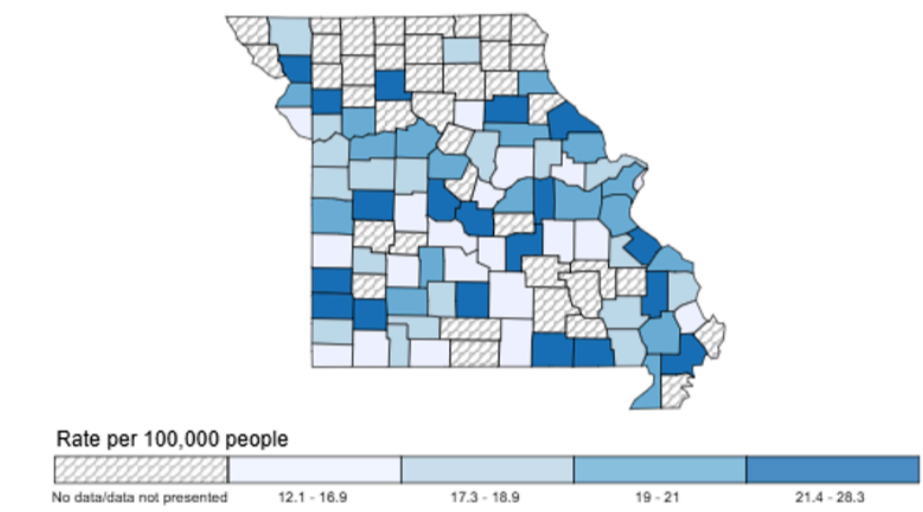
10 year Age-adjusted Incidence rate in Missouri By Sex



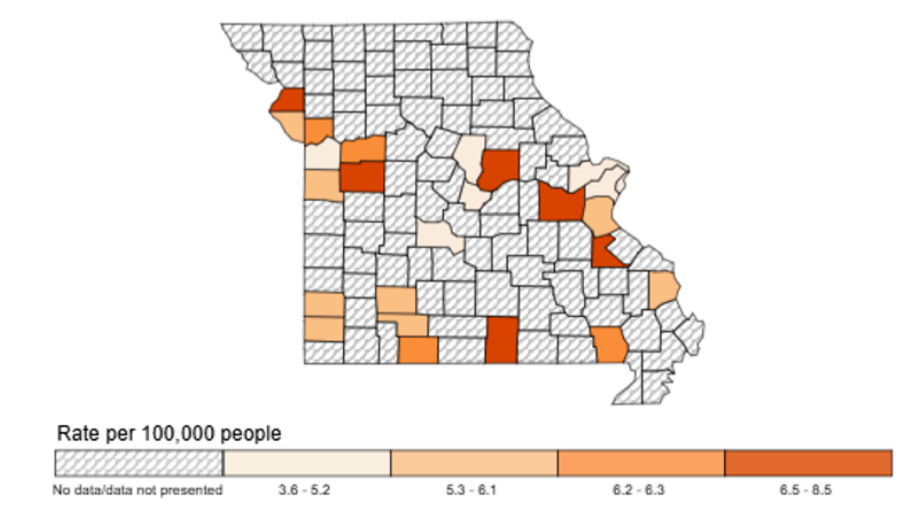
10 year Age-adjusted Incidence rate in Missouri By Race



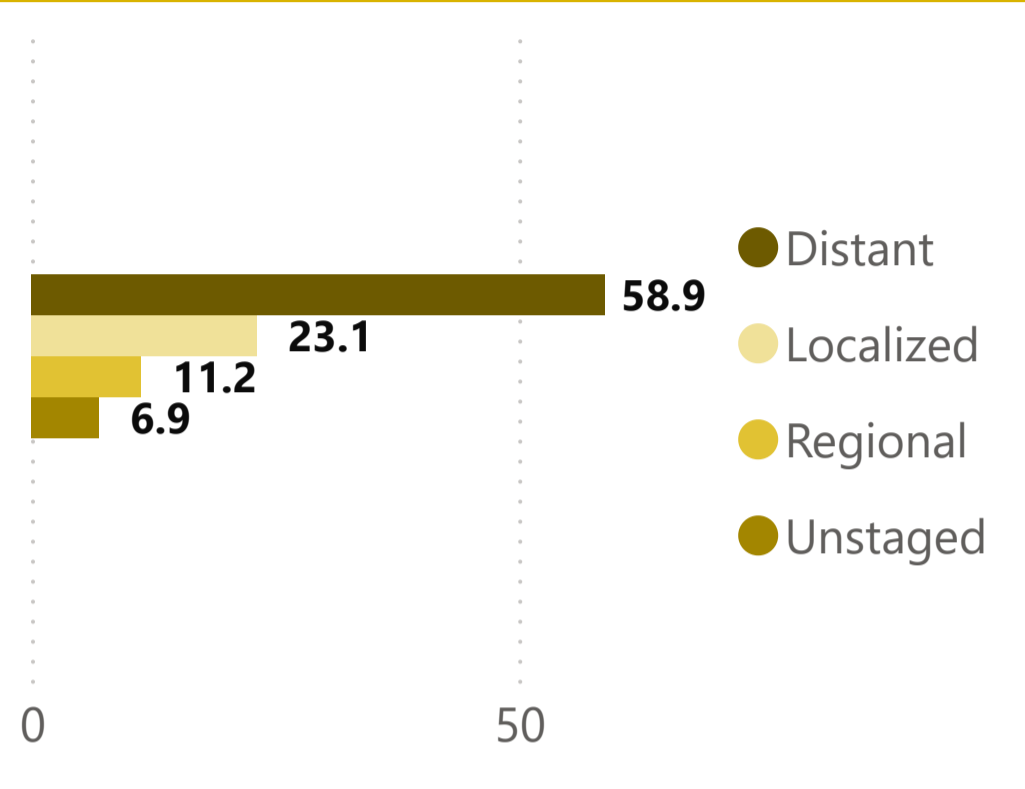
Incidence rate in Missouri County level 2017-2021



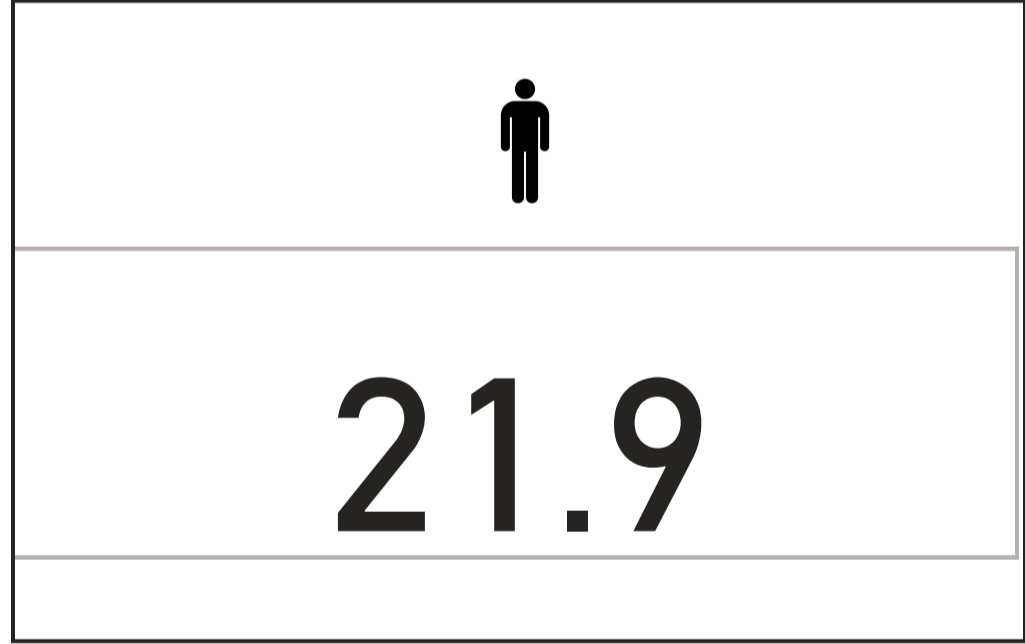
Mortality rate in Missouri County level 2018-2022



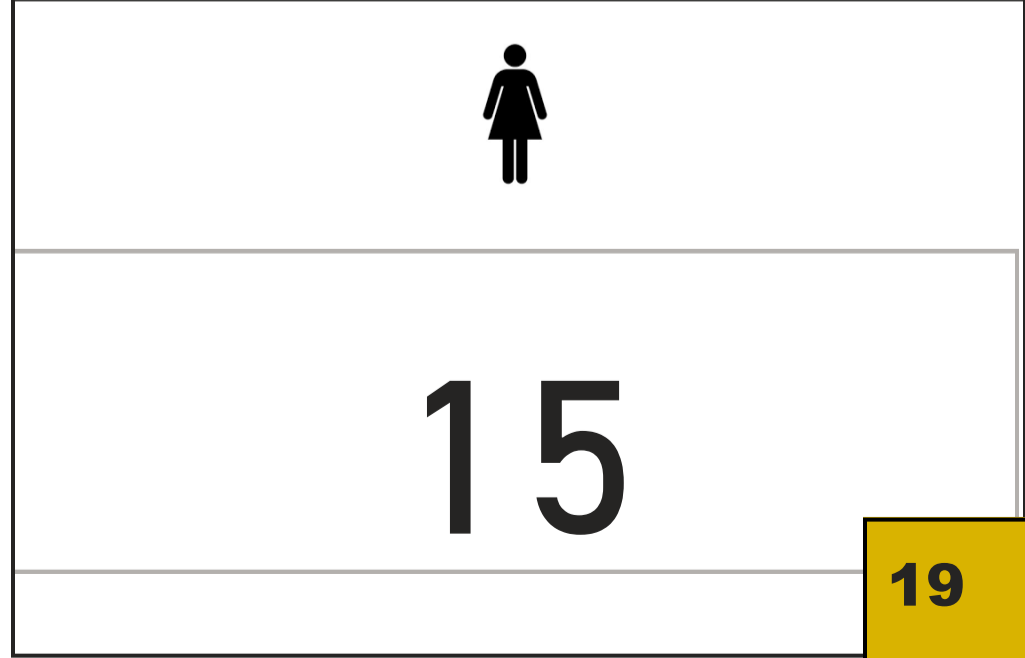
Stage Distribution



Incidence rate 2017-2021



Incidence rate 2017-2021



CORPUS & UTERI, NOS CANCER IN MISSOURI

Incidence rate 2017-2021

5823

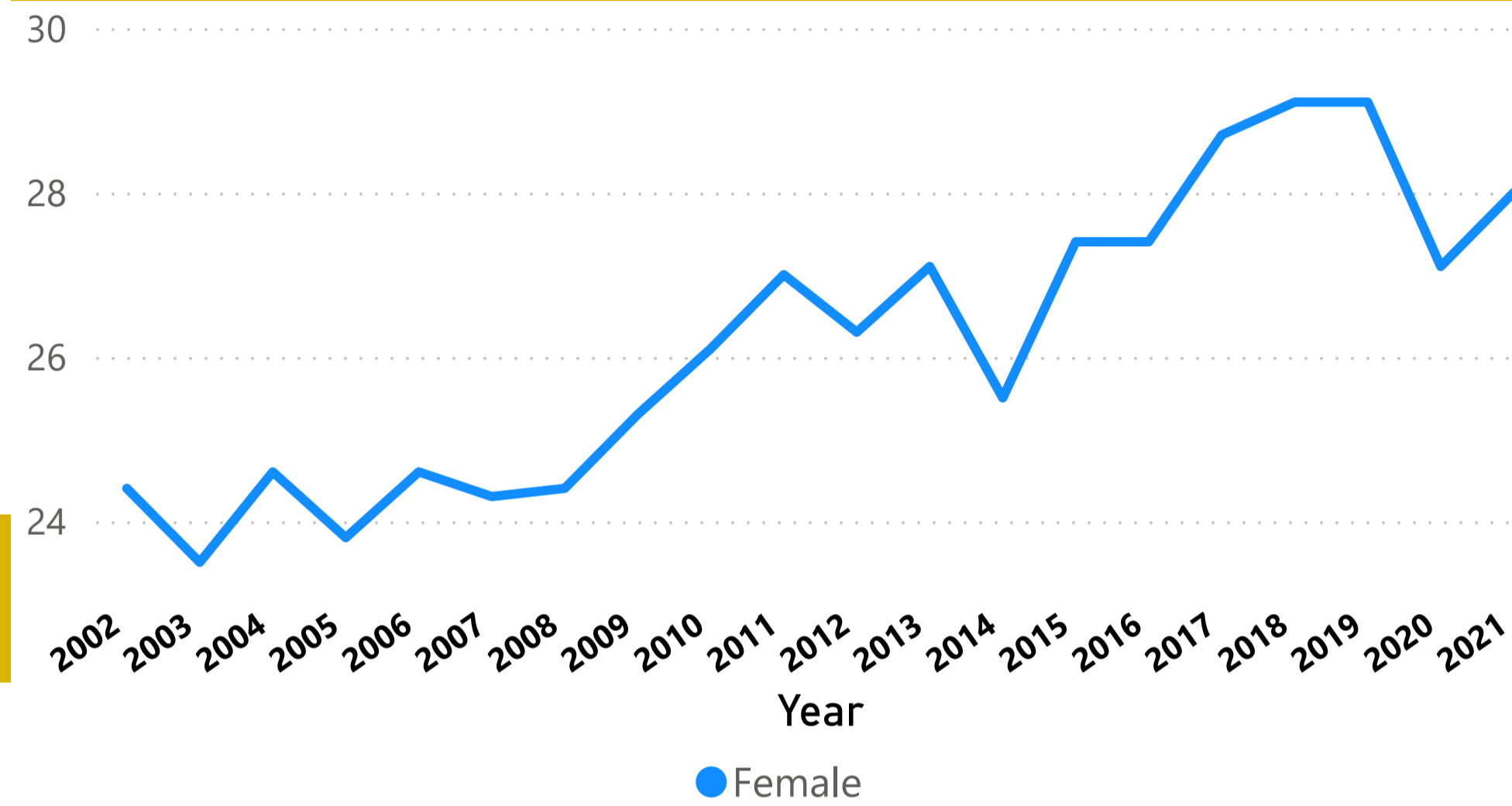
Corpus & Uteri cancer survivors 2017-2021

12448

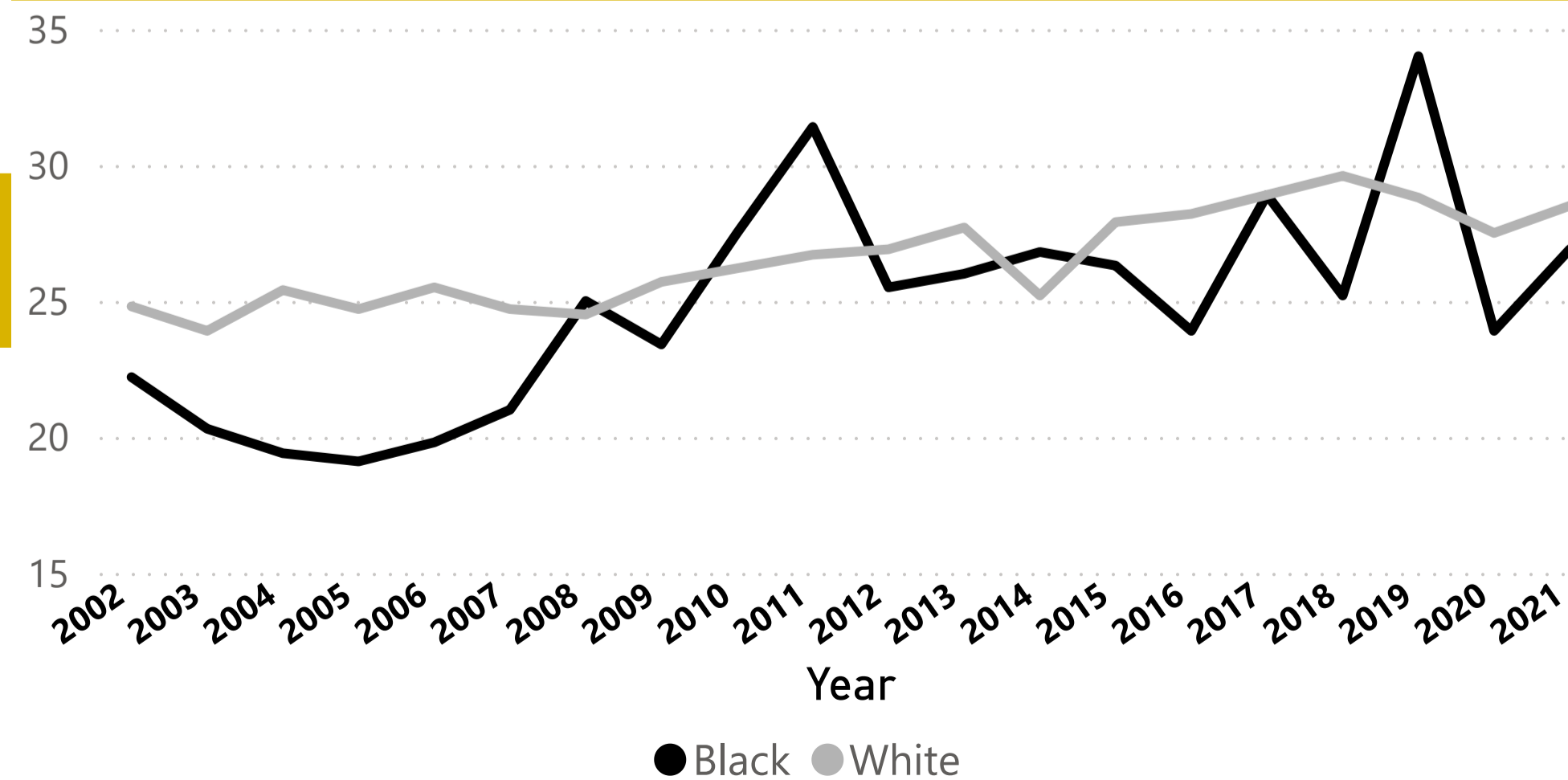
Rank in the death rate in the US

24

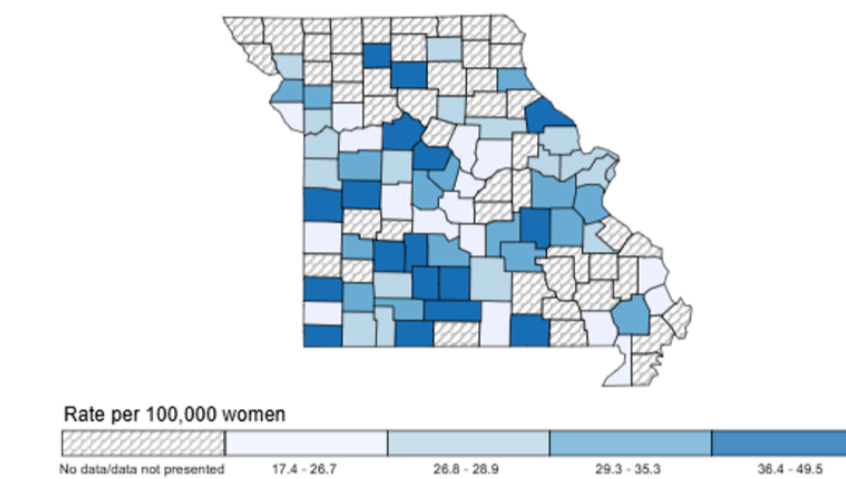
10 year Age-adjusted Incidence rate in Missouri By Sex



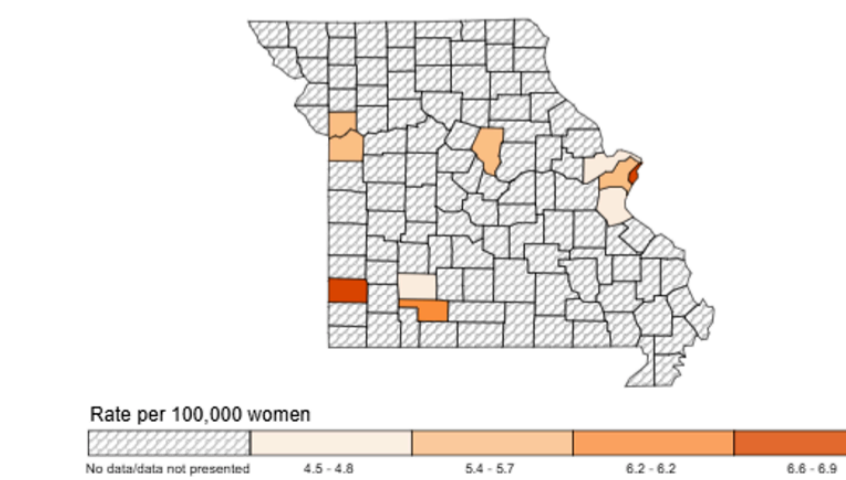
10 year Age-adjusted Incidence rate in Missouri By Race



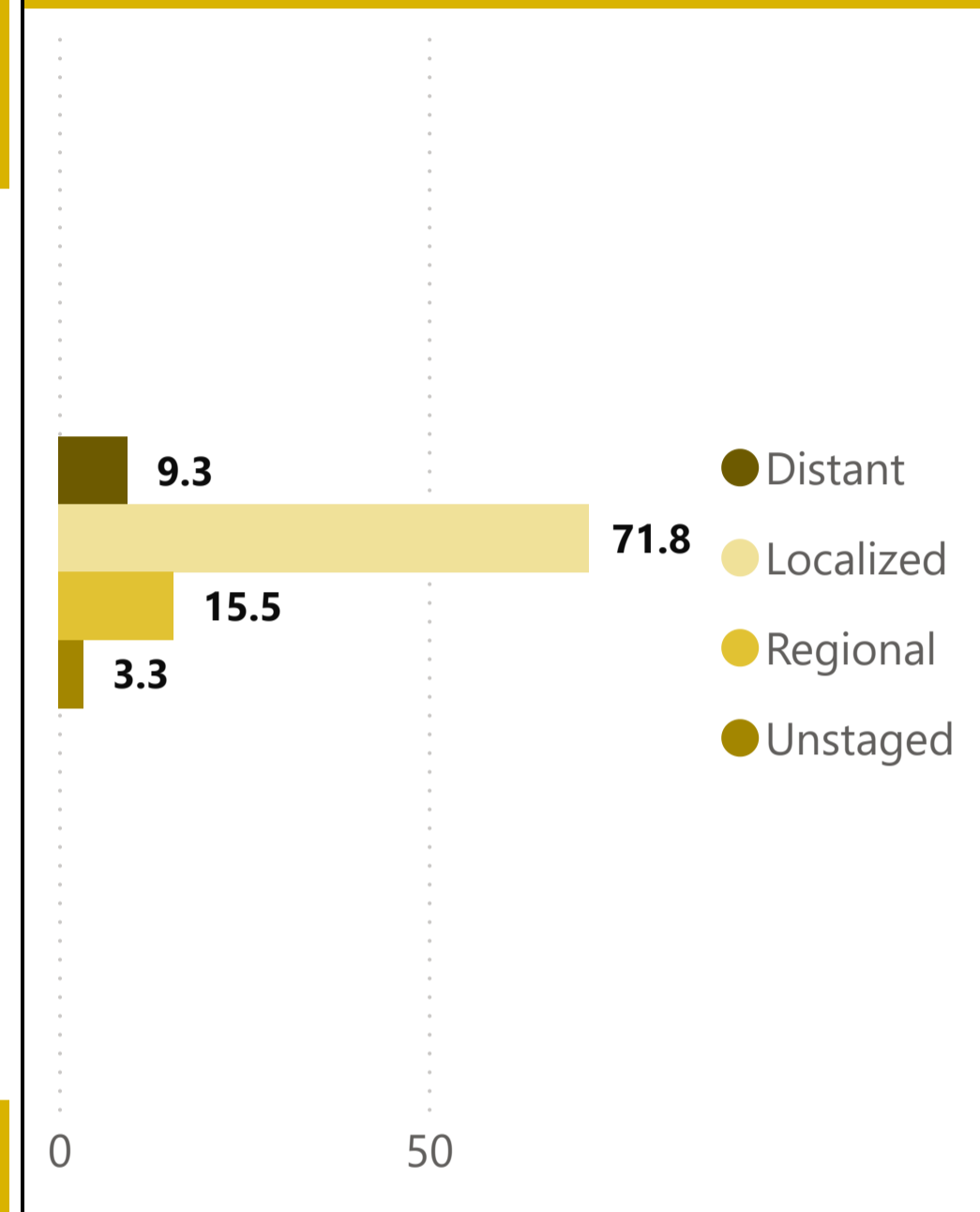
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



28.4

PANCREAS CANCER IN MISSOURI

Incidence rate 2017-2021

5340

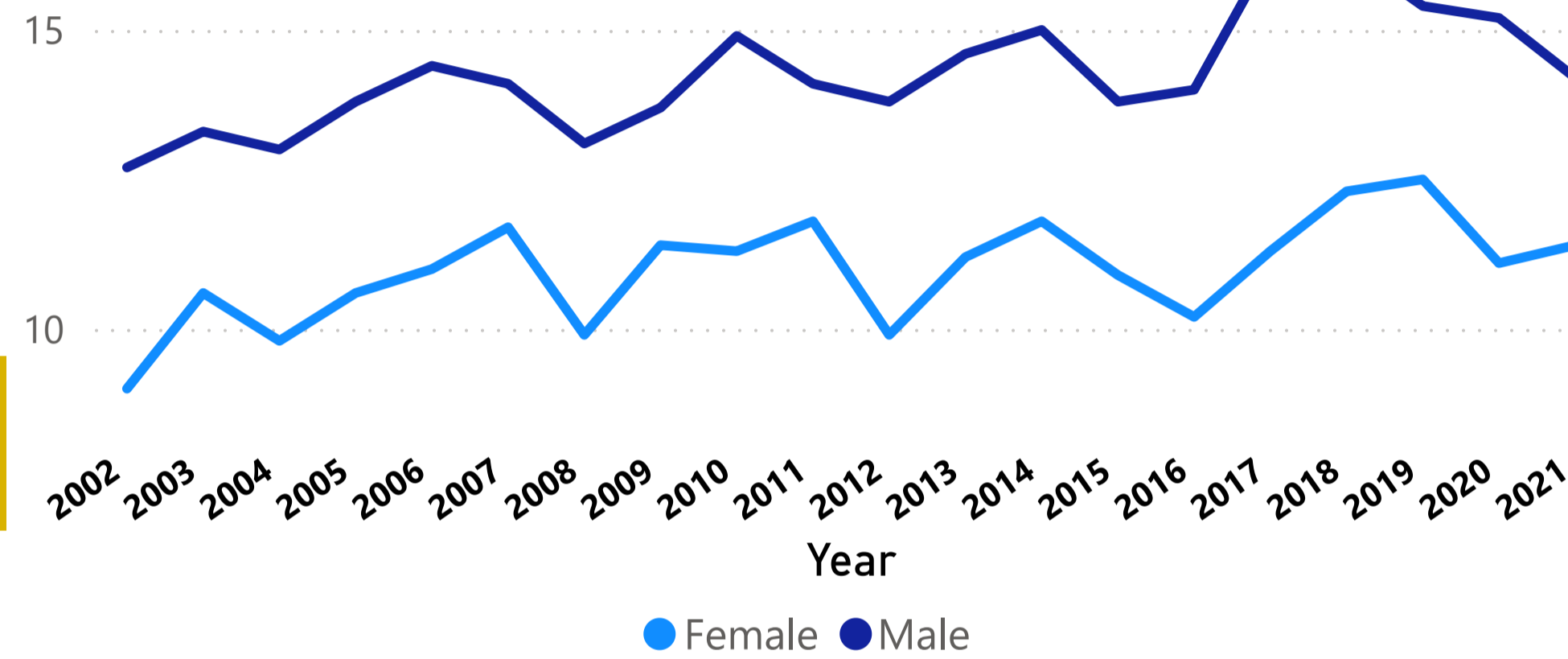
Pancreas cancer survivors 2017-2021

1718

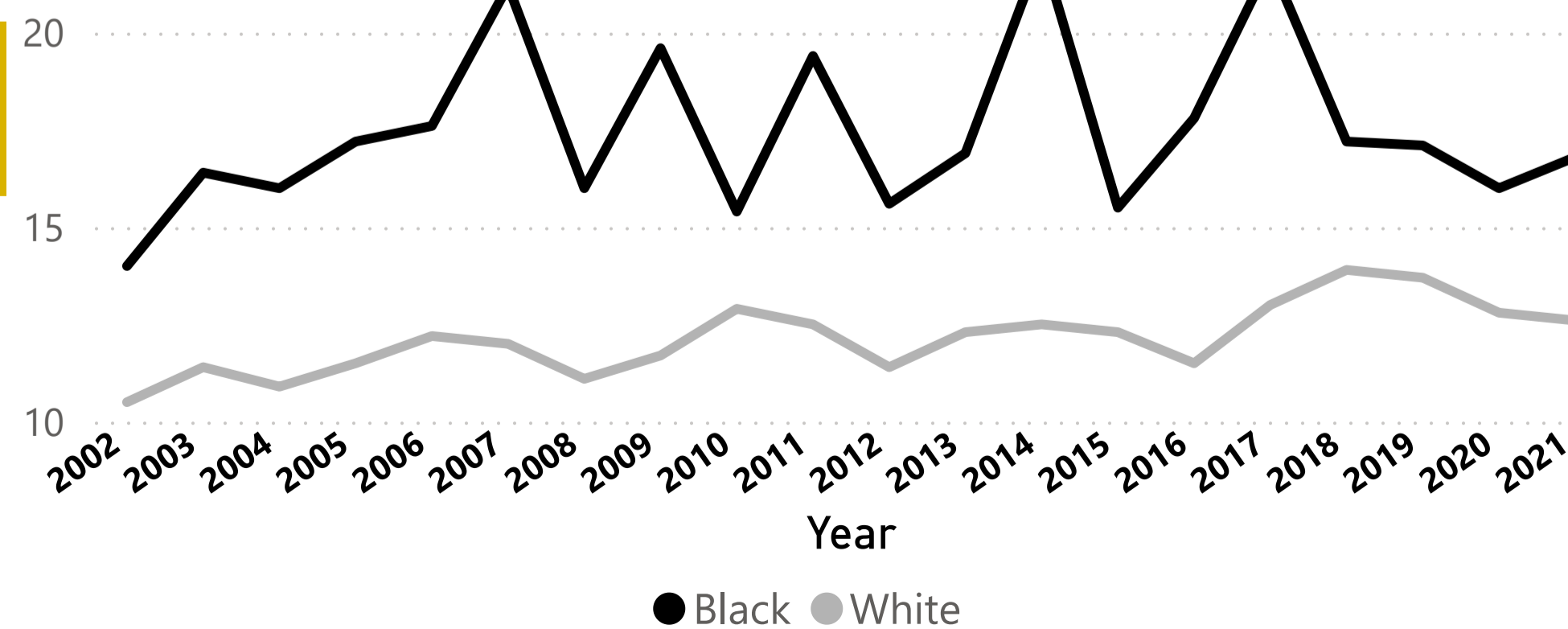
Ranked in the death rate in the US

12

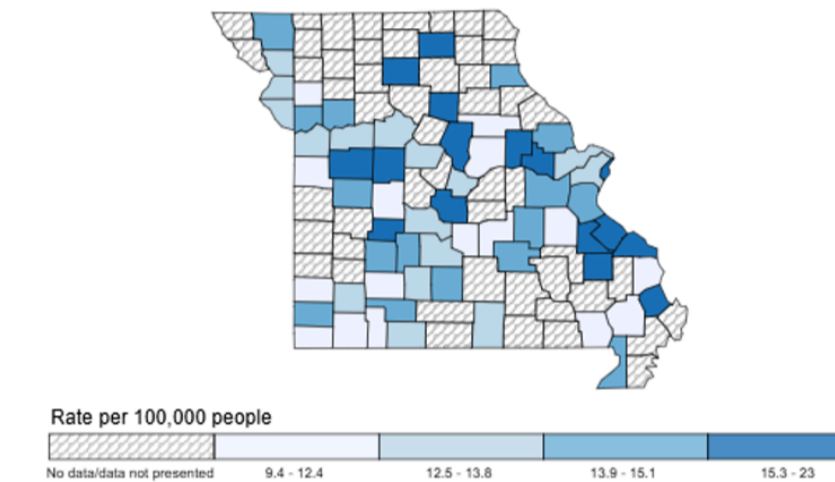
10 year Age-adjusted Incidence rate in Missouri By Sex



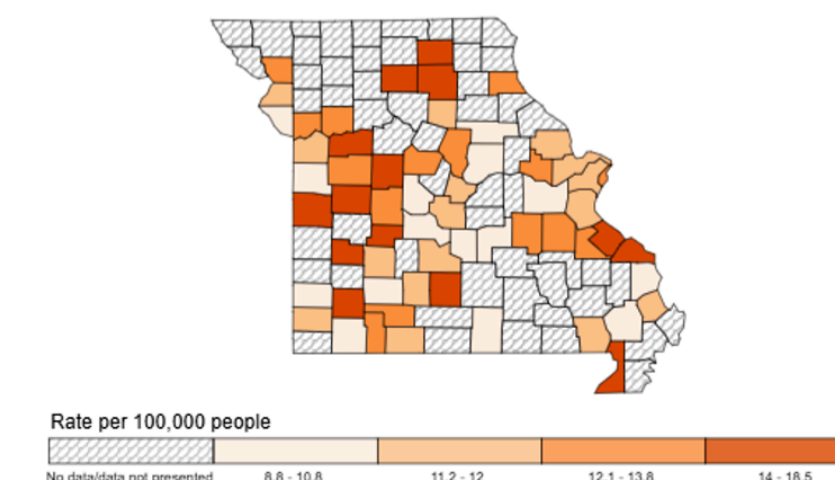
10 year Age-adjusted Incidence rate in Missouri By Race



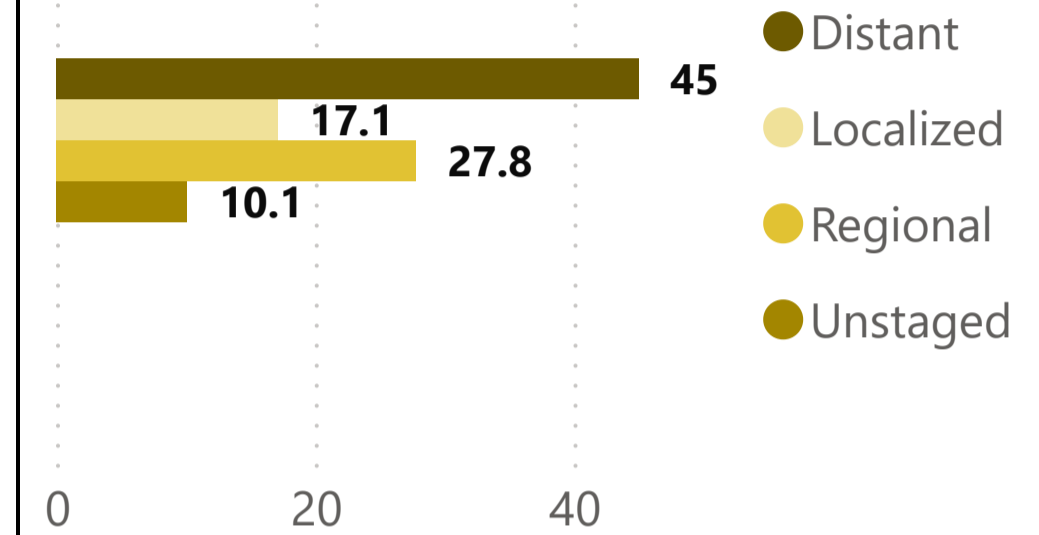
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



15.5

Incidence rate 2017-2021



11.7

OVARIAN CANCER IN MISSOURI

Incidence rate 2017-2021

1762

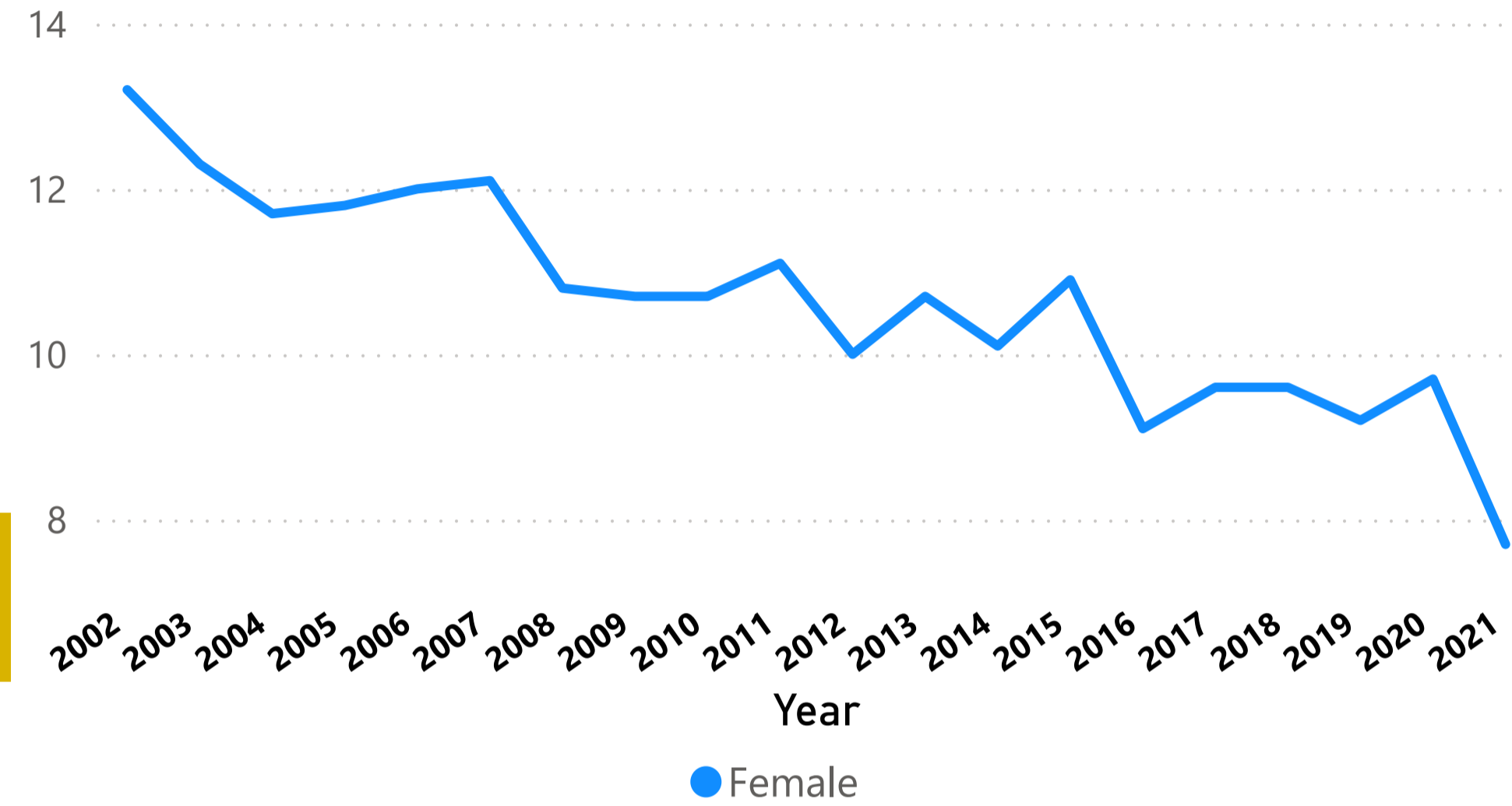
Ovarian cancer survivors 2017-2021

2762

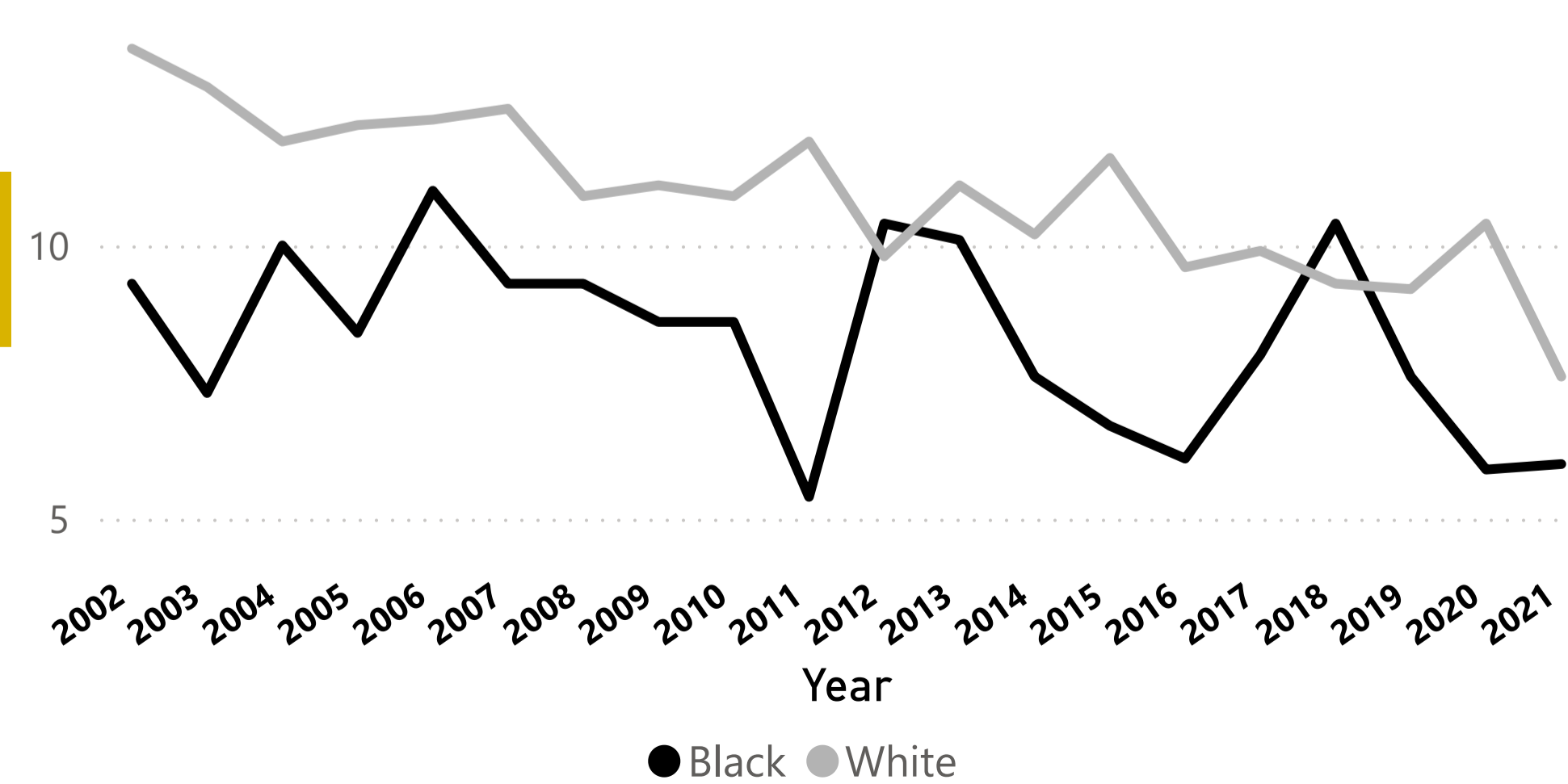
Rank in the death rate in the US

43

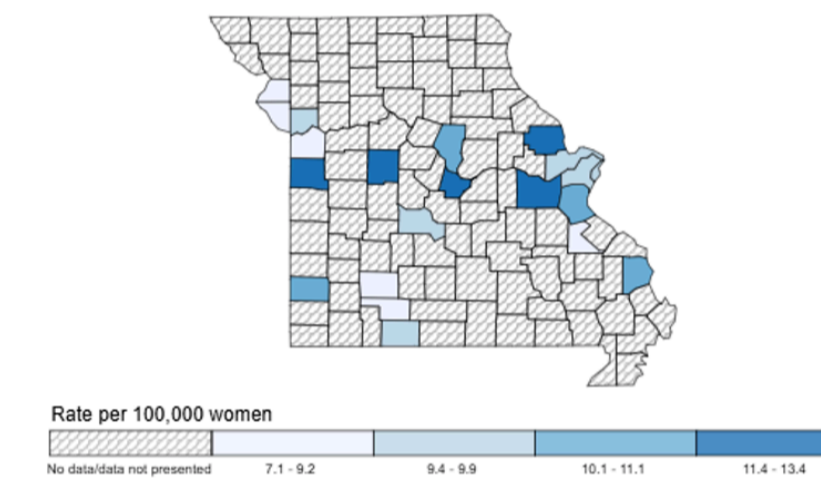
10 year Age-adjusted Incidence rate in Missouri By Sex



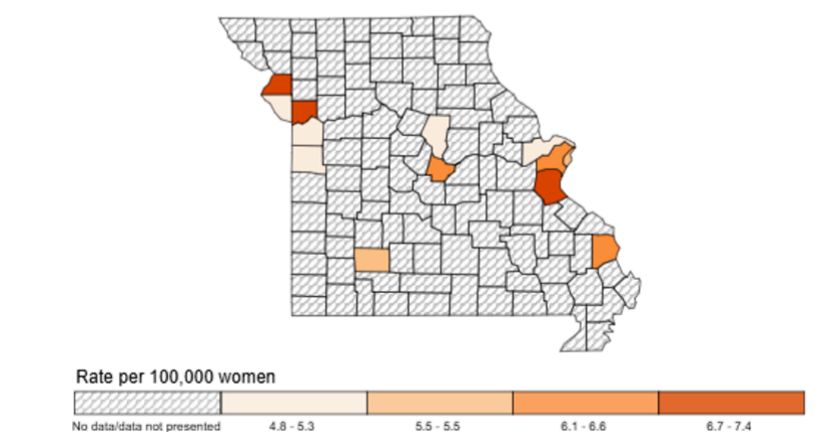
10 year Age-adjusted Incidence rate in Missouri By Race



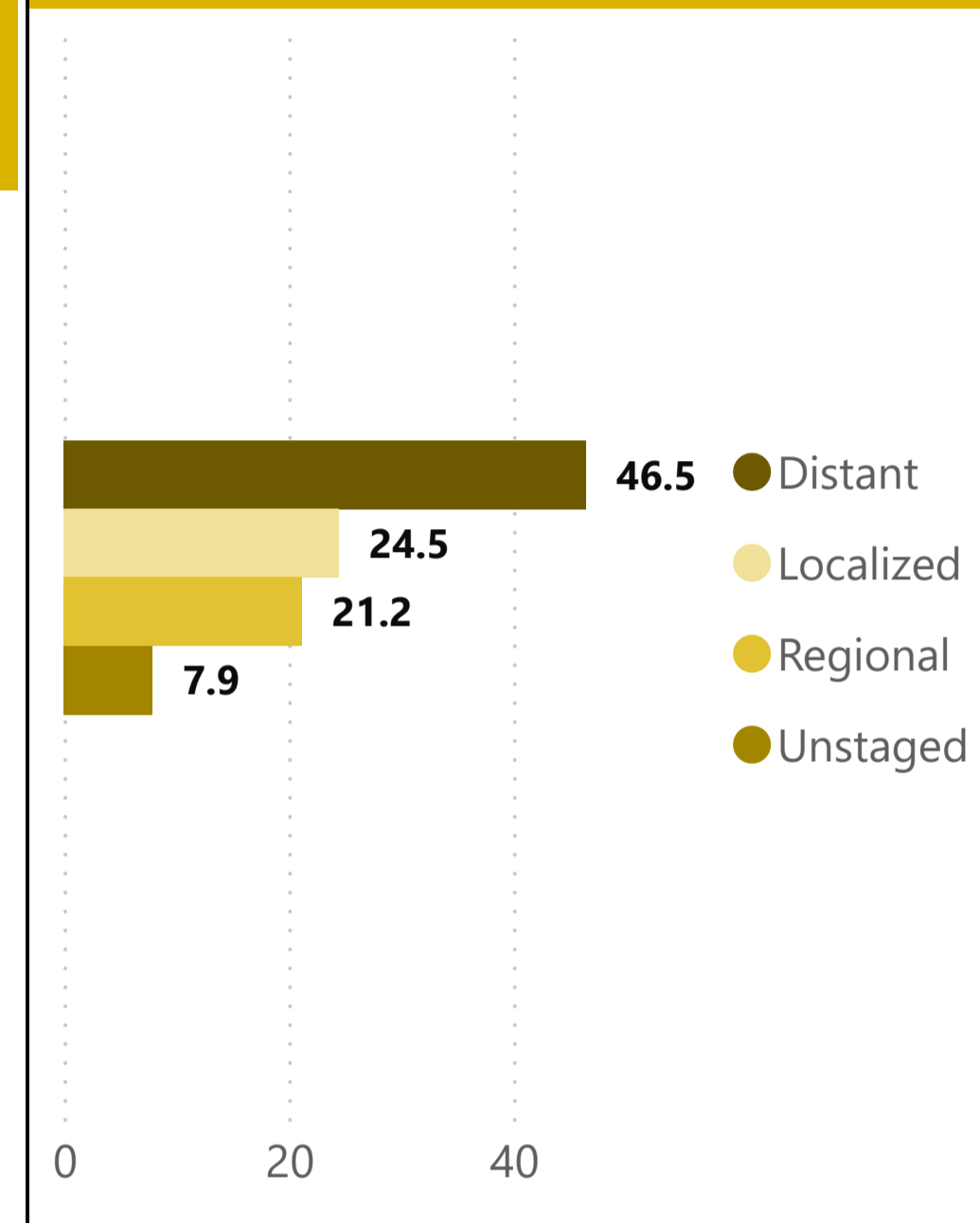
Incidence rate in Missouri County level 2017-2021



Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



9.1

CERVICAL CANCER IN MISSOURI

Incidence rate 2017-2021

1314

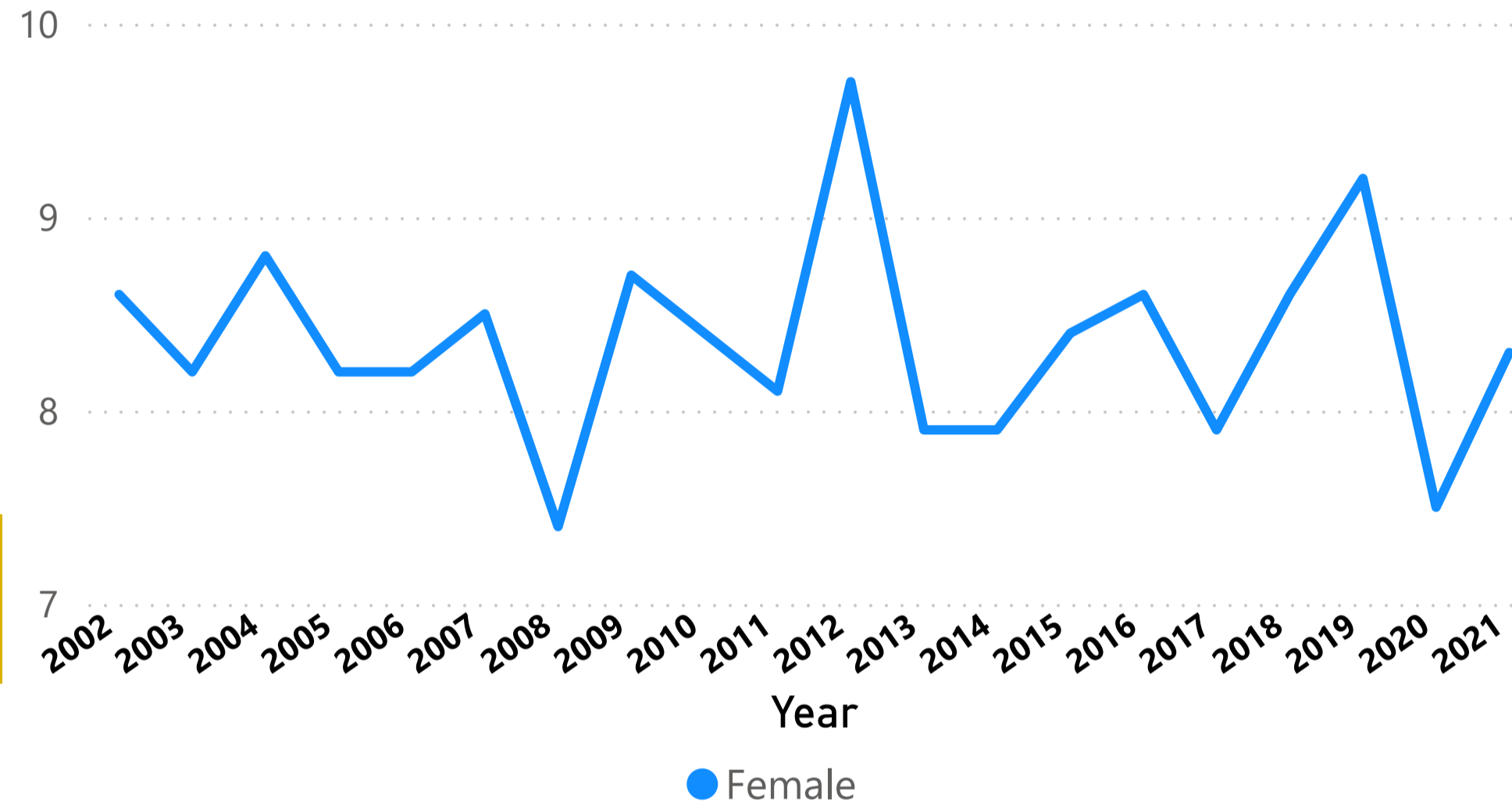
Cervical cancer survivors 2017-2021

2918

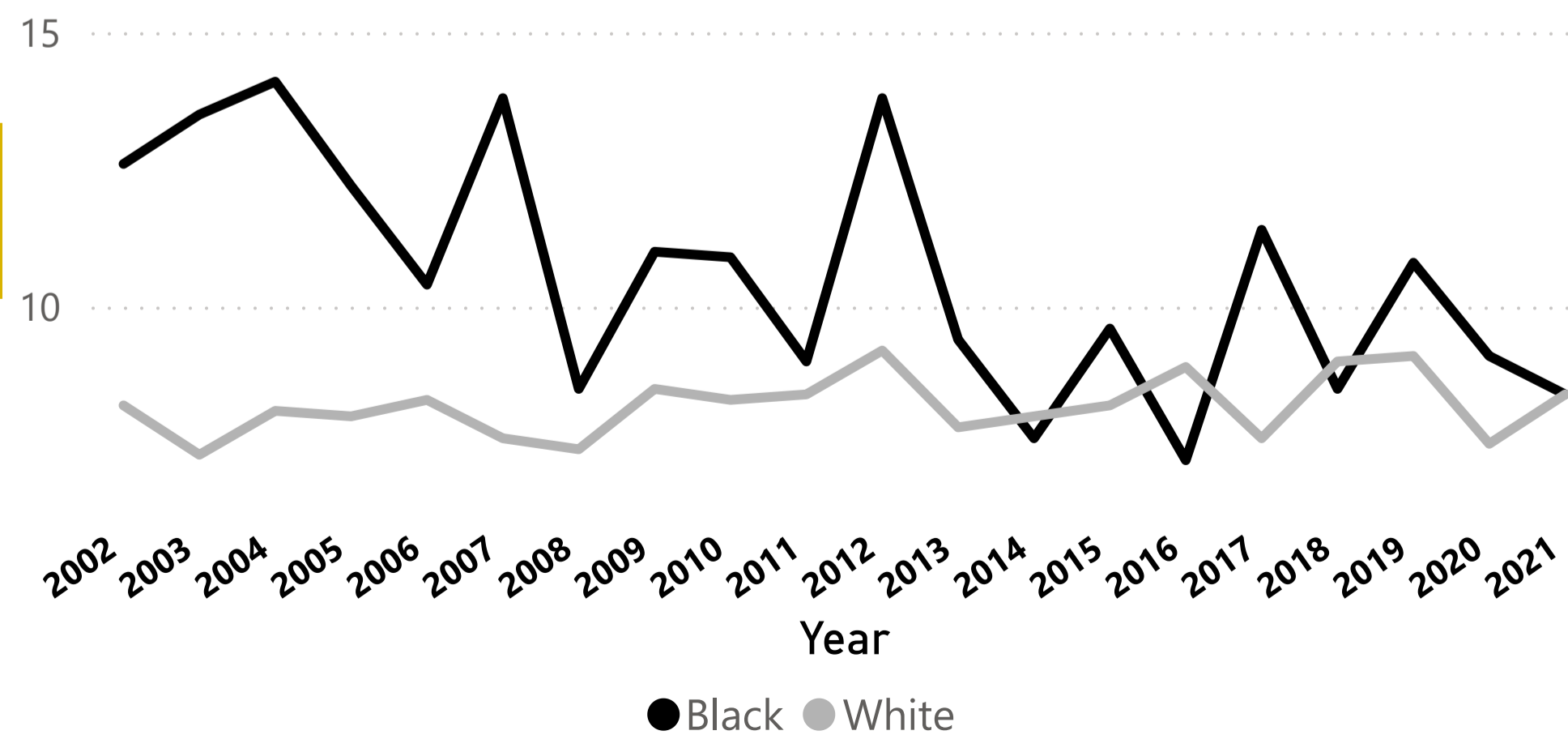
Rank in the death rate in the US

13

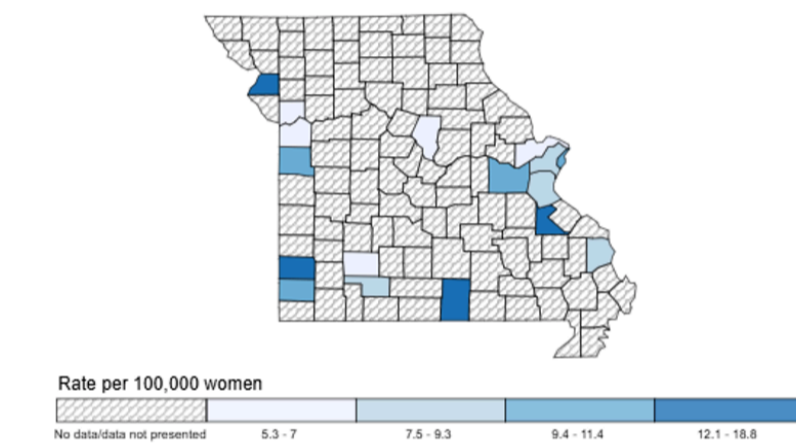
10 year Age-adjusted Incidence rate in Missouri By Sex



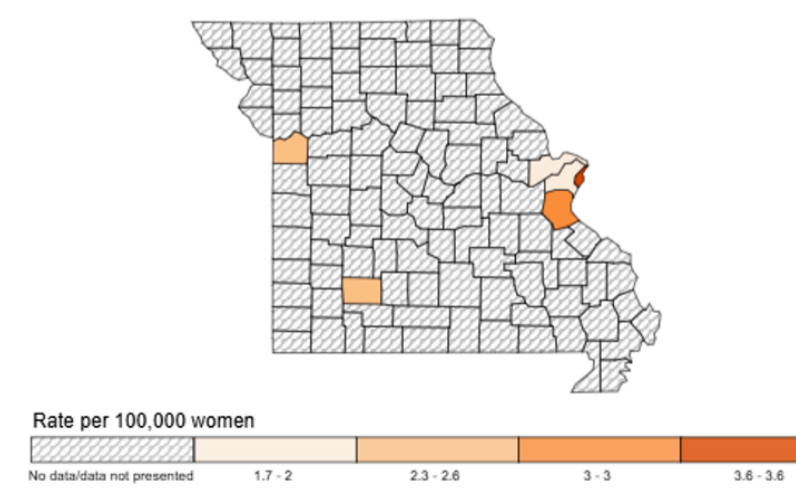
10 year Age-adjusted Incidence rate in Missouri By Race



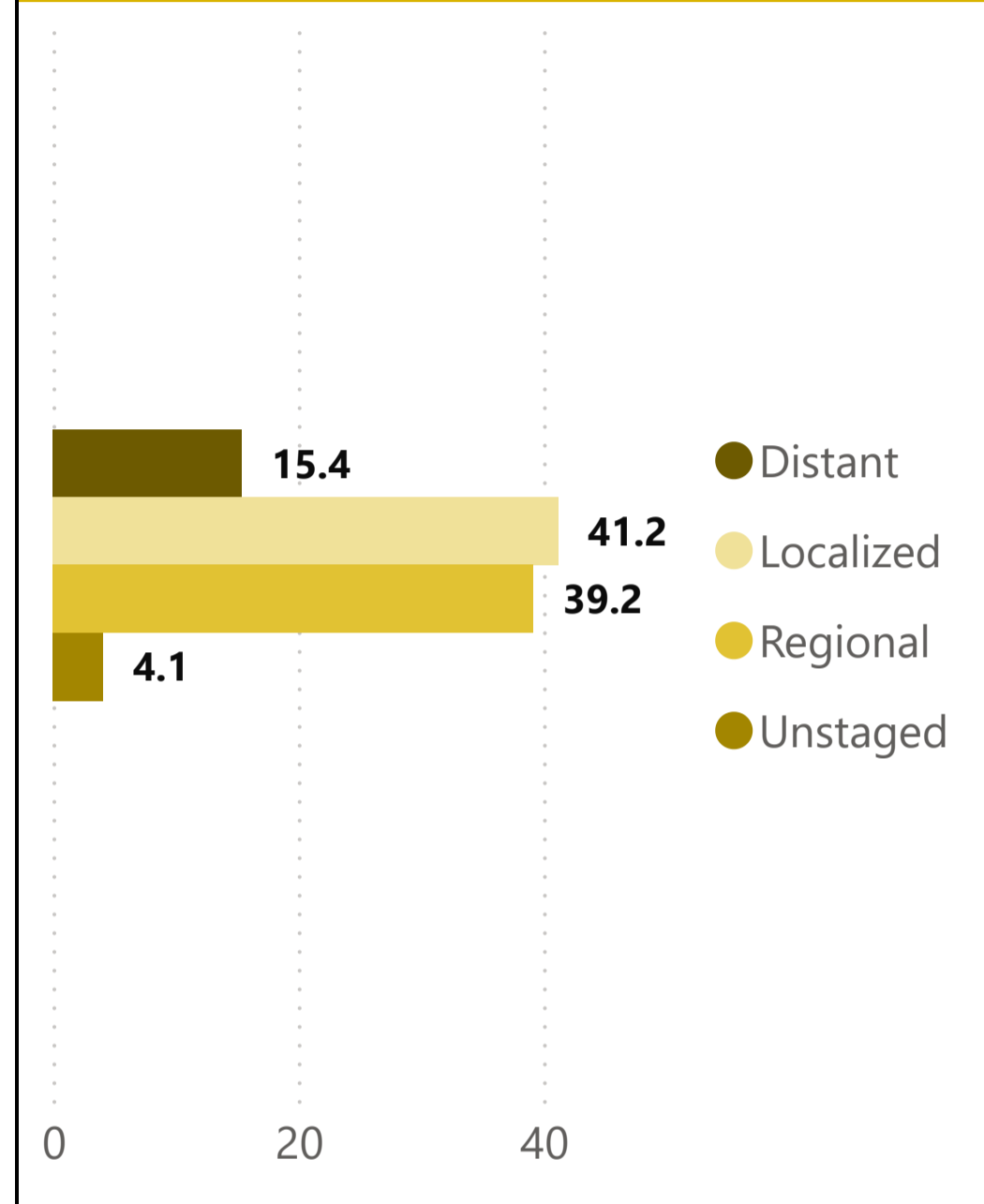
Incidence rate in Missouri County level 2017-2021



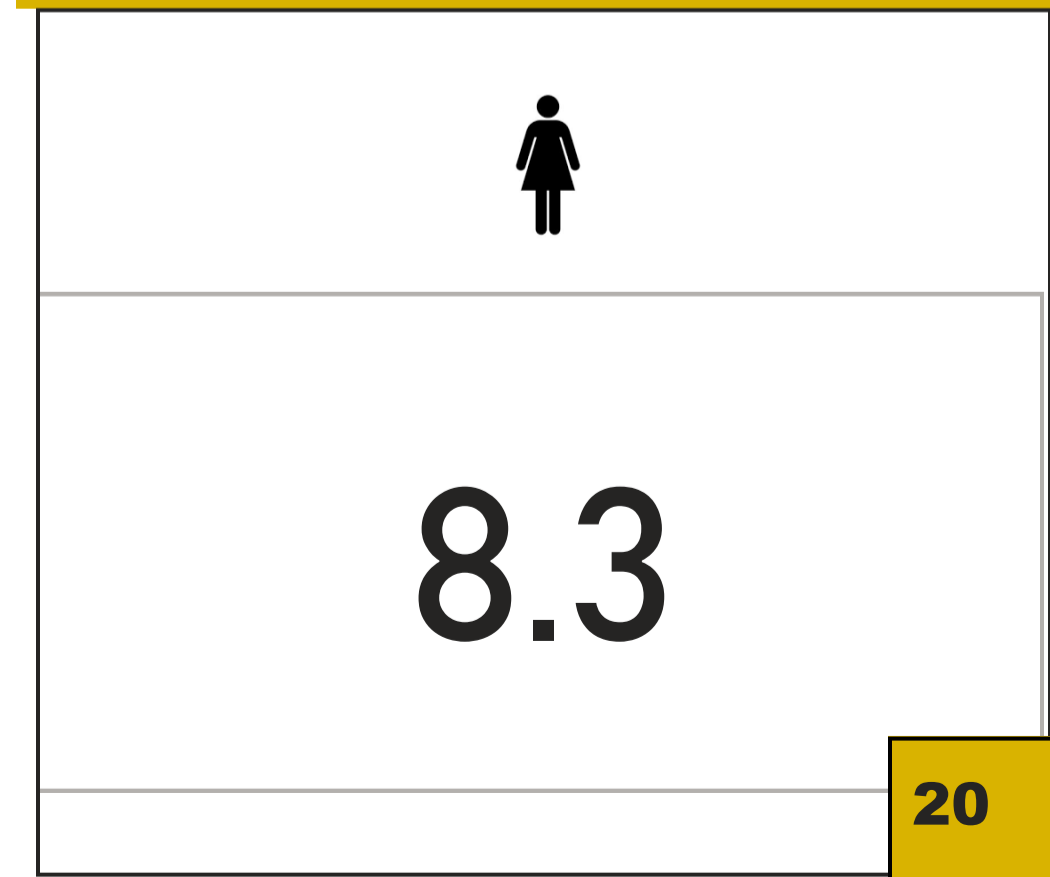
Mortality rate in Missouri County level 2018-2022



Stage Distribution



Incidence rate 2017-2021



ACCESS OUR ONE-PAGERS

Our One-pagers can be accessed at <https://cancerregistry.missouri.edu/data/missouri-cancer-stats-facts/>

For more information, please visit our website at [Missouri Cancer Registry and Research Center](#).

ADVANCE YOUR EXPERTISE: BECOME AN ONCOLOGY DATA SPECIALIST (ODS-C)

Missouri Cancer Registry is pleased to offer training and online courses for potential, new, and seasoned cancer registrars.

1. FUNDAMENTALS OF ABSTRACTING

The Missouri Cancer Registry is offering this online course for new and potential Oncology Data Specialists. This course is a great way to learn the basics of cancer abstraction. The course contains ten modules which follow the Missouri Cancer Registry Abstract Code Manual.



2. MOODS STUDY GUIDE

The study guide is designed to cover the major areas of the Certification Examination for Oncology Data Specialists. It is designed to highlight areas of relevance.



3. MCR EDUCATION ODS SHORTS

This collection of short videos is curated to assist with comprehending key responsibilities at the Missouri Cancer Registry, along with offering abstracting tips to prepare for the Certification Examination for Tumor Registrars.



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MCR's Toll-free Number MCR staff will be available from 7am – 3pm Monday thru Friday to answer questions on our toll-free number (1-800-392-2829). If you need assistance after hours, we encourage you to leave a message, and staff will do their best to return calls within one business day. For urgent requests, please phone 1-573-882-7775. For non-hospital reporting assistance, please press extension "06" for Stacy Barr.

Fax: 573-884-9655

