

# Healthcare Disparities in Bladder Cancer



For additional resources, please visit our US Medical Resources Website Oncology Page at:  
[https://medical.emdserono.com/en\\_US/medinfo/therapeutic-areas/oncology.html](https://medical.emdserono.com/en_US/medinfo/therapeutic-areas/oncology.html)

# Table of Contents



## Healthcare Disparities in cancer (US data)

Overview of cancer in the United States 

Disparities in cancer 



## Bladder Cancer (UC) Disparities

Latest epidemiology/data trends 

Disparities in Bladder cancer 

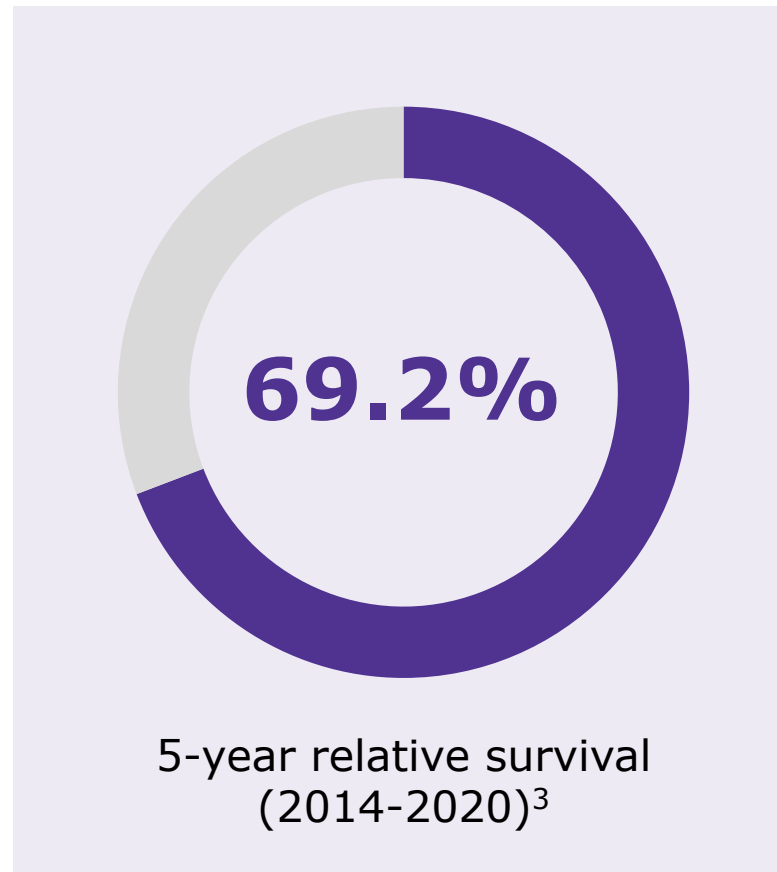
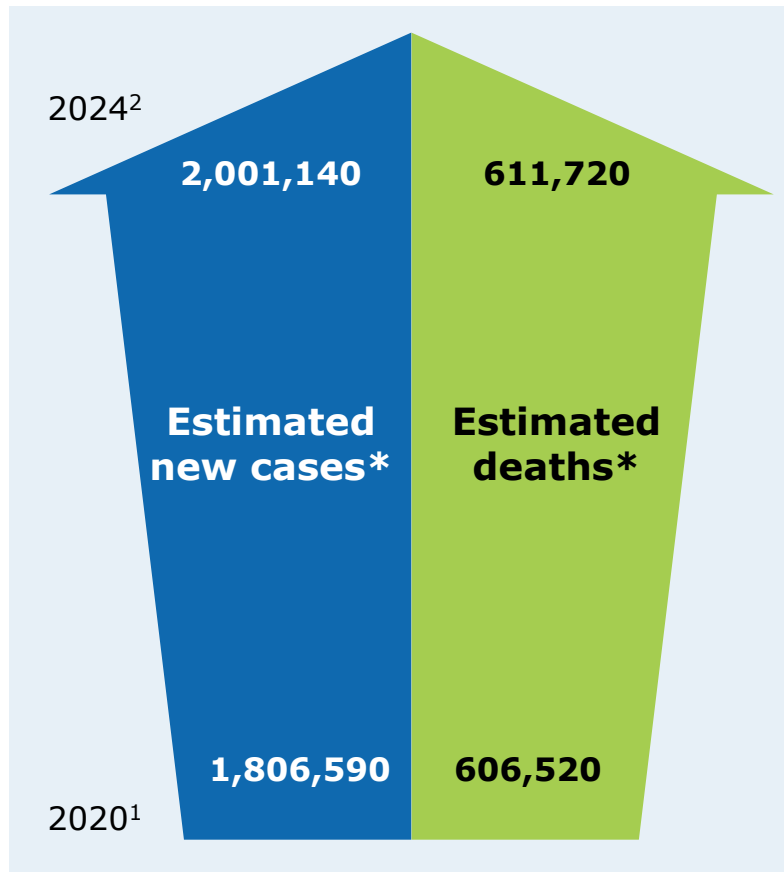
## Efforts to Address Disparities

# Healthcare Disparities in Cancer (US data)



# Cancer in the United States

## An Overview

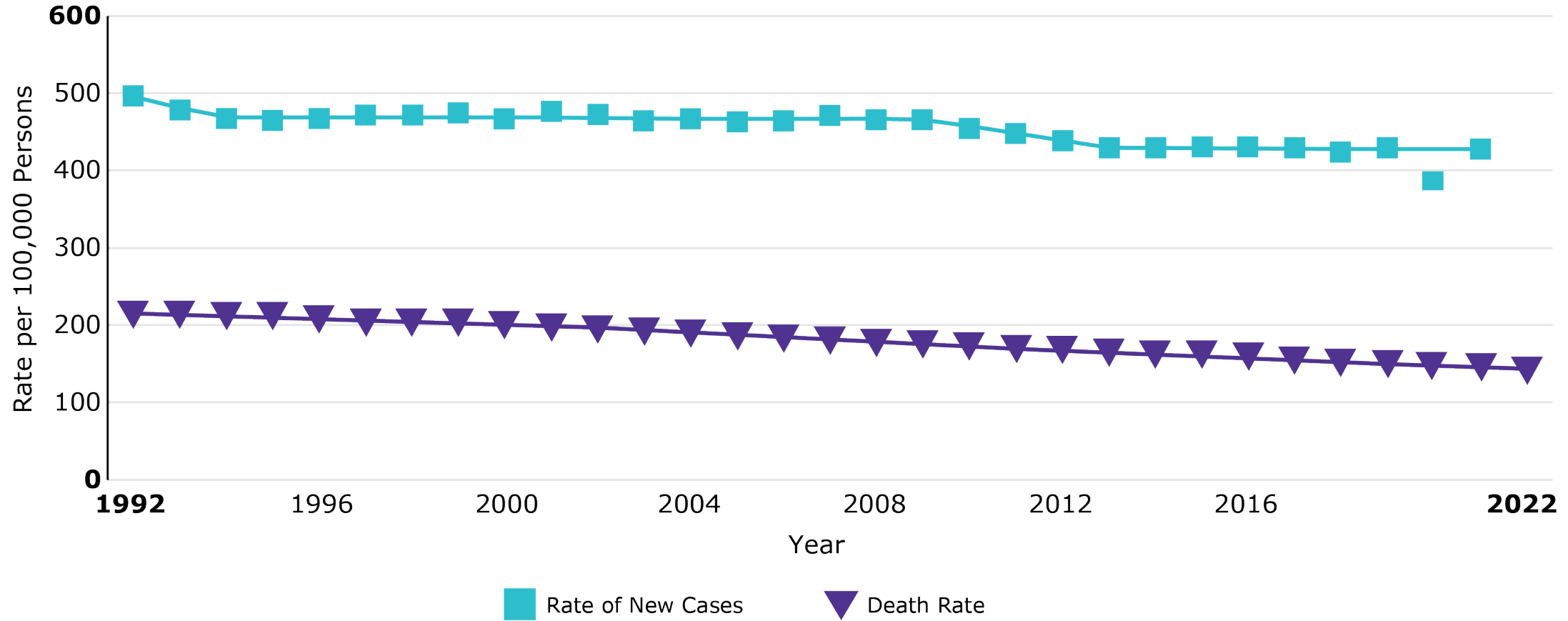


\*Not age adjusted. Age-adjusted rates of new cases was 427.8 and for deaths was 144.2 per 100,000 persons for 2021.<sup>3</sup>  
1. Siegel RL, et al. *CA Cancer J Clin.* 2020;70(1):7-30. 2. Siegel RL, et al. *CA Cancer J Clin.* 2024;74(1):12-49. 3. SEER Cancer Stat Facts: Cancer of Any Site. National Cancer Institute. Accessed October 10, 2024. <https://seer.cancer.gov/statfacts/html/all.html>

# Cancer in the United States

## An Overview (contd.)

### New Cases and Deaths Trends



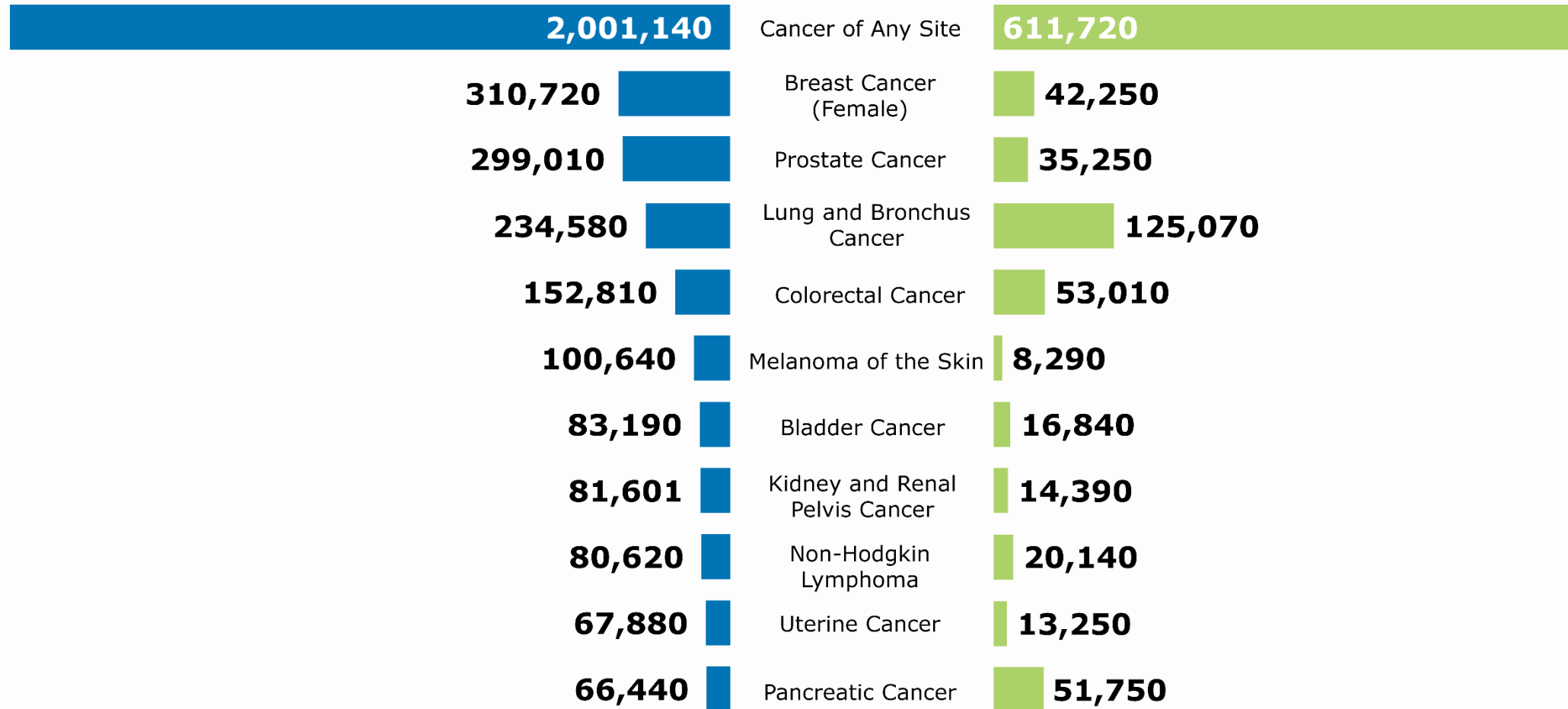
New cases come from SEER 8. Deaths come from US mortality. All races, both sexes. Rates are age-adjusted. Modeled trend lines were calculated from the underlying rates using the Joinpoint Trend Analysis Software. The 2020 incidence rate is displayed but not used in the fit of the trend line(s). Impact of COVID on SEER Cancer Incidence 2020 data. SEER Cancer Stat Facts: Cancer of Any Site. National Cancer Institute. Accessed October 10, 2024. <https://seer.cancer.gov/statfacts/html/all.html>

## Cancer in the United States

# An Overview (contd.)

**Estimated New Cases 2024\***

**Estimated Deaths 2024\***

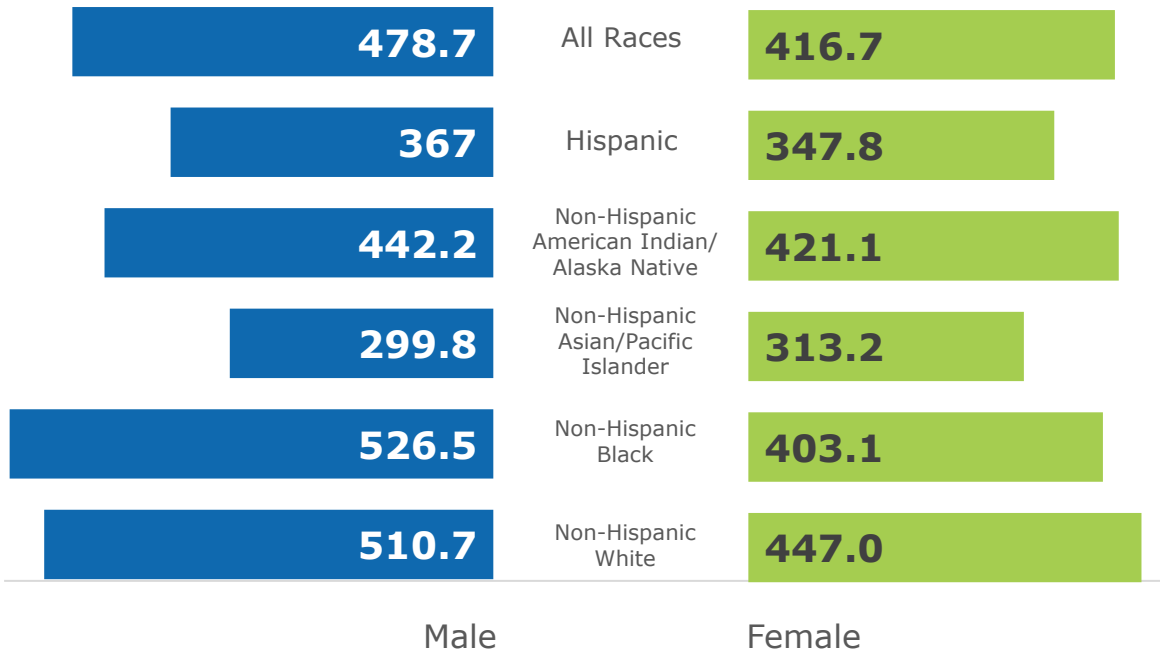


\*Individual bars represent numbers compared to the reference number of "cancer of any site" for estimated new cases and estimated deaths respectively. SEER Cancer Stat Facts: Cancer of Any Site. National Cancer Institute. Accessed October 10, 2024. <https://seer.cancer.gov/statfacts/html/all.html>

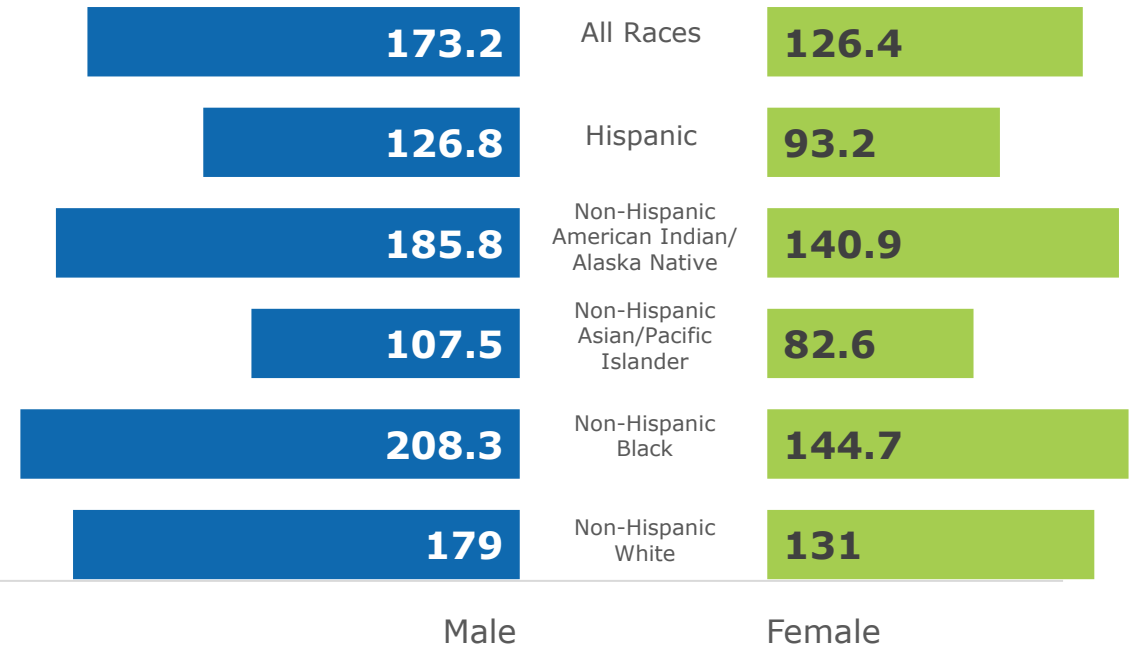
Cancer in the United States

# An Overview (contd.)

**Rate of New Cases by Race/Ethnicity & Sex\*:  
Cancer of Any Site**



**Death Rate by Race/Ethnicity & Sex†:  
Cancer of Any Site**



# Healthcare Disparities in Cancer (US data)

**Despite overall declines in cancer incidence and mortality rates, healthcare disparities persist, creating substantial social and economic burdens<sup>1</sup>**

Four key factors contributing to disparities include:



**Access to Care**



**Race/Ethnicity**



**Socioeconomic Status**



**Geographical Location**



## Access to Care



**Limited access can result from various barriers, including lack of health insurance, transportation issues, and a shortage of healthcare providers in certain areas.**

Barriers that can lead to delays in diagnoses and treatment, which are crucial in cancer care, include:

- **Access to high-quality oncology** care can vary based on :
  - Location
  - Socioeconomic factors
- Patients in underserved areas may not have access to the latest treatments and technologies.<sup>1,2</sup>
- **Consistent and continuous care** is crucial for effective cancer treatment.<sup>2</sup>
- Negative impact on patient outcomes can be observed due to disruptions in care by factors like:
  - Financial barriers
  - Transportation issues or other factors

## Socioeconomic Status



**Patients with lower socioeconomic status often face barriers such as lack of insurance, inability to afford treatment, and limited access to high-quality healthcare facilities.<sup>1</sup>**

Areas where socioeconomic factors can affect health disparities in clinical practice include:

### Insurance and Financial Barriers:

- Patients with lower socioeconomic status often lack adequate health insurance, which limits their access to necessary treatments and medications.<sup>1</sup>
- High out-of-pocket costs can deter patients from seeking timely care.<sup>2</sup>

### Education and Awareness:

- Lower levels of education can result in a lack of awareness about cancer symptoms, screening programs, and treatment options.
- This leads to delayed diagnoses and poorer outcomes.<sup>3</sup>

### Transportation and Support Services:

- Financial constraints can also affect patients' ability to travel to treatment centers, especially if they are located far from their homes.<sup>1</sup>

## Race and Ethnicity



**Systemic inequities contribute to higher cancer rates and poorer outcomes among minority groups.**

These include:

### Language Barriers:

- Non-English speakers may struggle to understand medical information and communicate effectively with healthcare providers, leading to misunderstandings and suboptimal care.<sup>1</sup>

### Cultural Beliefs:

- Cultural differences can influence health behaviors, attitudes towards medical treatment, and trust in the healthcare system.<sup>2</sup>
- Historical injustices have led to mistrust of the medical system among some minority groups, resulting in delayed or avoided care.<sup>3</sup>

### Insurance access:

- Variations of insurance coverage across ethnic groups is linked to disparities in cancer stage at diagnosis. Minority groups have higher percentages of stage III-IV cancer at diagnosis that may be attributable to lack of health insurance.<sup>4</sup>

## Geographic Location



**Geographic disparities in cancer incidence and outcomes in the United States are influenced by several factors.**

### Availability of Services:

- Residents of rural areas with low socioeconomic status experience considerable disadvantages related to limited access to quality healthcare (such as shortage of primary care physicians, oncologists, and other cancer care specialists).

### Health Behaviors:

- Rural residents tend to be older, engage in risky health behaviors like tobacco use and poor diet, and have lower adherence to preventive care than their urban and suburban counterparts. This places them at higher risk of cancer and other chronic diseases.

### Financial Barriers:

- Health disparities are further exacerbated by the lack of health insurance. Also, the overall cancer mortality is significantly higher in persistent poverty counties versus nonpersistent poverty counties.

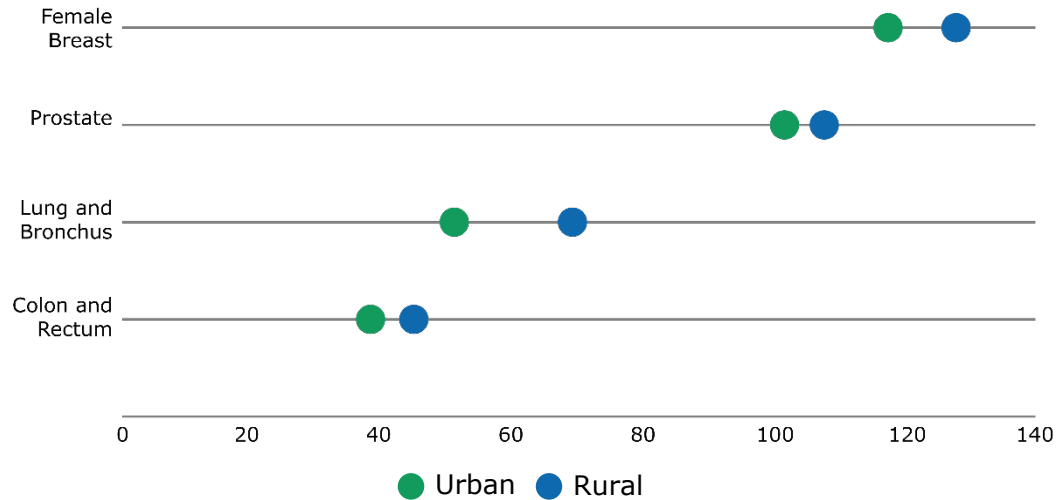
# Healthcare Disparities in Cancer

## Geographic Location (contd.)

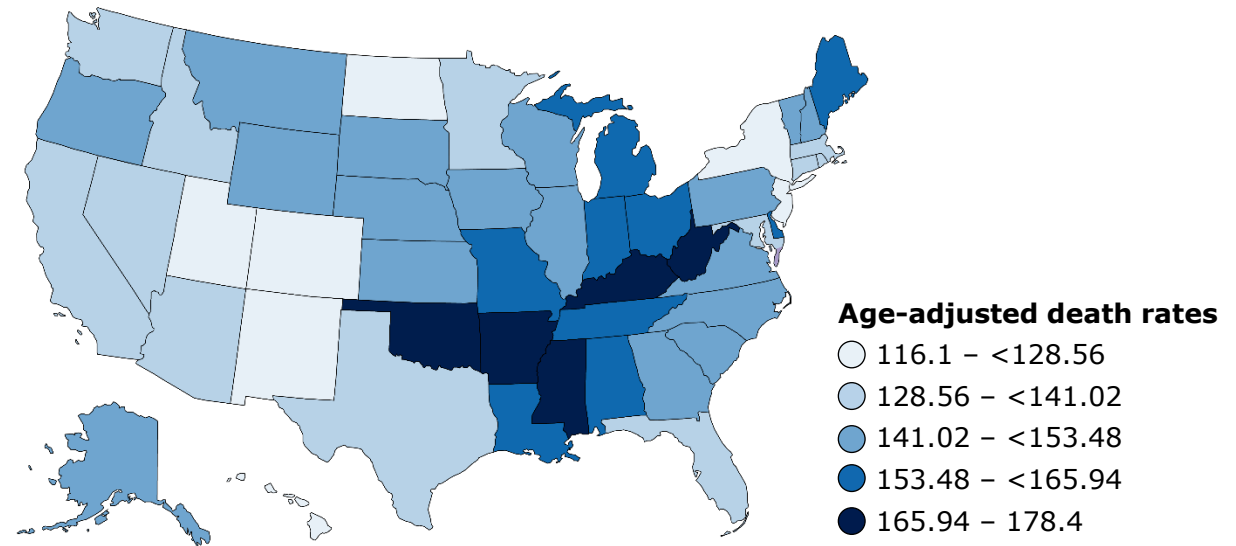


**Geographic disparities in cancer incidence and outcomes in the United States are influenced by several factors.**

**Incidence rates for most common cancers<sup>1,\*</sup>**



**Cancer mortality in United States<sup>2,\*</sup>**



\*Age-adjusted rates per 100,000 people.

1. NIH. Cancer Map Stories. Rural-Urban Disparities in Cancer. Updated November 8, 2024. Accessed November 11, 2024. <https://gis.cancer.gov/mapstory/rural-urban/index.html> 2. CDC. National Center for Health Statistics. Cancer Mortality by State. Accessed October 6, 2024. [https://www.cdc.gov/nchs/pressroom/sosmap/cancer\\_mortality/cancer.htm#print](https://www.cdc.gov/nchs/pressroom/sosmap/cancer_mortality/cancer.htm#print)

# Bladder Cancer (UC) Disparities



## Bladder Cancer Overview

# Prevalence

Estimated new cases in 2022<sup>1</sup>

**613,791**

Estimated deaths in 2022<sup>1</sup>

**220,349**



Bladder cancer is the **9<sup>th</sup>** most common cancer worldwide with both incidence and mortality rates increasing<sup>2</sup>

Estimated new cases in 2024<sup>3</sup>

**83,190**

Estimated deaths in 2024<sup>3</sup>

**16,840**

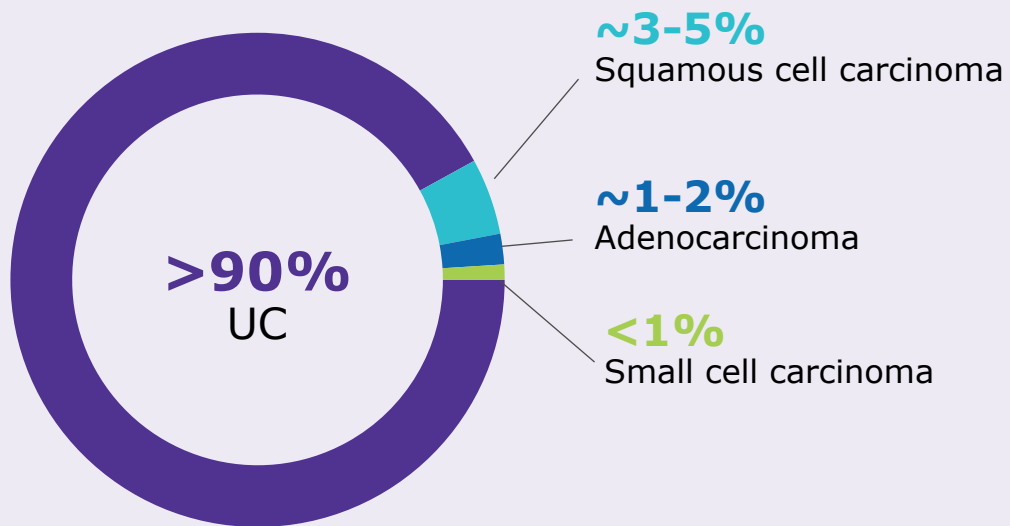


Bladder cancer makes up about 4% of cancers in the United States and is the **6<sup>th</sup>** most common cancer<sup>3,4</sup>

1. Bray F, et al. *CA Cancer J Clin.* 2024;74(3):229-263. 2. World Bladder Cancer Patient Coalition. Press release. Published February 14, 2024. Accessed September 5, 2024. [https://worldbladdercancer.org/news\\_events/globocan-2022-bladder-cancer-is-the-9th-most-commonly-diagnosed-worldwide](https://worldbladdercancer.org/news_events/globocan-2022-bladder-cancer-is-the-9th-most-commonly-diagnosed-worldwide) 3. American Cancer Society. Key Statistics for Bladder Cancer. Revised March 12, 2024. Accessed September 5, 2024. <https://www.cancer.org/cancer/types/bladder-cancer/about/key-statistics.html> 4. National Cancer Institute. Cancer Statistics. Revised May 9, 2024. Accessed November 4, 2024. <https://www.cancer.gov/about-cancer/understanding/statistics>

# Histology and Risk Factors

## Histology<sup>1,2</sup>



>90% of bladder cancers are urothelial carcinoma<sup>1</sup>

## Key Risk Factors<sup>3</sup>

### Smoking



**3 times** as likely to get bladder cancer

### Age



Risk of bladder cancer **increases with age**

### Sex



More **common in men (1 in 28)** than in women (1 in 89)<sup>4</sup>

### Ethnicity



White people are about **twice as likely** to develop bladder cancer as African American and Hispanic people

### Genetics



**~2-fold elevated relative risk** of bladder cancer among people with a family history<sup>5</sup>

### Chemicals



Occupational exposures and certain medicines are linked with an increased risk of bladder cancer

UC: Urothelial carcinoma

1. Leslie SW, et al. Bladder cancer. Updated August 15, 2024. In: StatPearls [Internet]. <https://www.ncbi.nlm.nih.gov/books/NBK536923/> 2. American Cancer Society. What Is Bladder Cancer? Revised March 12, 2024. Accessed October 17, 2024. <https://www.cancer.org/cancer/types/bladder-cancer/about/what-is-bladder-cancer.html> 3. American Cancer Society. Bladder Cancer Risk Factors. Revised March 12, 2024. Accessed October 17, 2024. <https://www.cancer.org/cancer/types/bladder-cancer/causes-risks-prevention/risk-factors.html> 4. American Cancer Society. Key Statistics for Bladder Cancer. Revised March 12, 2024. Accessed November 4, 2024. <https://www.cancer.org/cancer/types/bladder-cancer/about/key-statistics.html> 5. Pemov A, et al. *JCO Precis Oncol.* 2021;5:PO.21.00115.



# Disparities in Bladder Cancer



**Gender**



**Access to Care**



**Race and Ethnicity**



**Clinical Trials**

# Disparities in Bladder Cancer

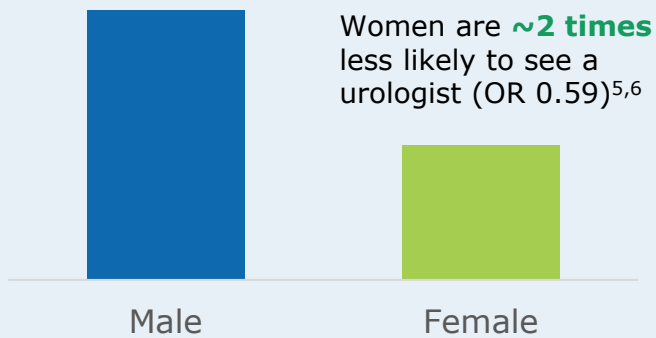
## Gender

### Diagnosis

Women experience longer wait times and are less likely to be assigned comprehensive care

- Women may wait 2 to 4 weeks longer than men to receive timely diagnostic evaluation<sup>1</sup>
- Women are less likely to be referred to a urologist or receive complete evaluation<sup>1</sup>

#### Urologist visit probability

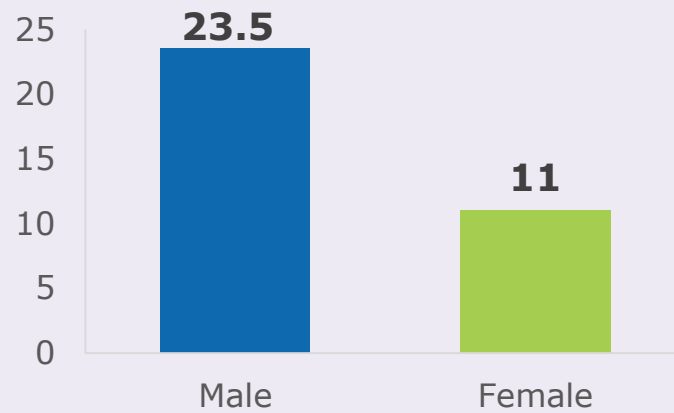


### Treatment

Women are less likely to receive treatments that may improve prognosis

- Women receive fewer cystoscopies than men in many parts of the United States<sup>1</sup>
- Women are less likely to undergo definitive curative radical cystectomy than men<sup>1,2</sup>

#### Mean cystoscopies per 1000<sup>7</sup>

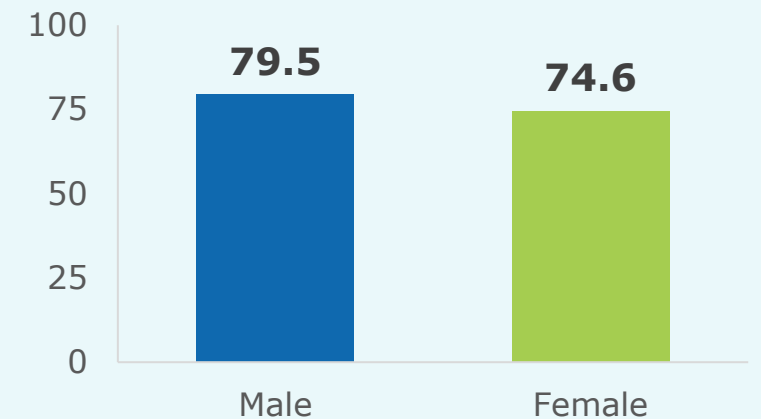


### Outcomes

Women are more likely to have worse outcomes than men

- While males are more likely to have bladder cancer, females are frequently detected at an advanced stage<sup>3,4</sup>
- Women have a greater risk of recurrence and worse overall survival than men<sup>1</sup>

#### 5-year relative survival (%)<sup>8</sup>



OR: odds ratio

1. Association of Community Cancer Centers. Understanding and mitigating disparities in bladder cancer care. Published April 2022. Accessed October 17, 2024. [www.accc-cancer.org/docs/projects/bladder-cancer/understanding-and-mitigating-disparities-in-bladder-cancer-care.pdf](http://www.accc-cancer.org/docs/projects/bladder-cancer/understanding-and-mitigating-disparities-in-bladder-cancer-care.pdf) 2. Hoffman-Censits J, et al. *Am Soc Clin Oncol Educ Book*. 2021;41:e174-e181. 3. Zhu S, Zhao H. *Front Pharmacol*. 2024;14:1326627. doi:10.3389/fphar.2023.1326627 4. Zhang Y. *J Environ Sci Health C Environ Carcinog Ecotoxicol Rev*. 2013;31(4):287-304. 5. Ark JT, et al. *J Urol*. 2017;198(5):1033-1038. 6. Doshi B, et al. *Oncogenesis*. 2023;12(1):44. 7. Han DS, et al. *Urology*. 2018;122:83-88. 8. SEER Cancer Statistics Explorer Network. Accessed September 19, 2024. [https://seer.cancer.gov/statistics-network/explorer/application.html?site=71&data\\_type=4&graph\\_type=5&compareBy=sex&chk\\_sex\\_3=3&chk\\_sex\\_2=2&series=9&race=1&age\\_range=1&stage=101&advopt\\_precision=1&hdn\\_view=1&advopt\\_show\\_apc=on&advopt\\_display=2#resultsRegion1](https://seer.cancer.gov/statistics-network/explorer/application.html?site=71&data_type=4&graph_type=5&compareBy=sex&chk_sex_3=3&chk_sex_2=2&series=9&race=1&age_range=1&stage=101&advopt_precision=1&hdn_view=1&advopt_show_apc=on&advopt_display=2#resultsRegion1)

# Disparities in Bladder Cancer

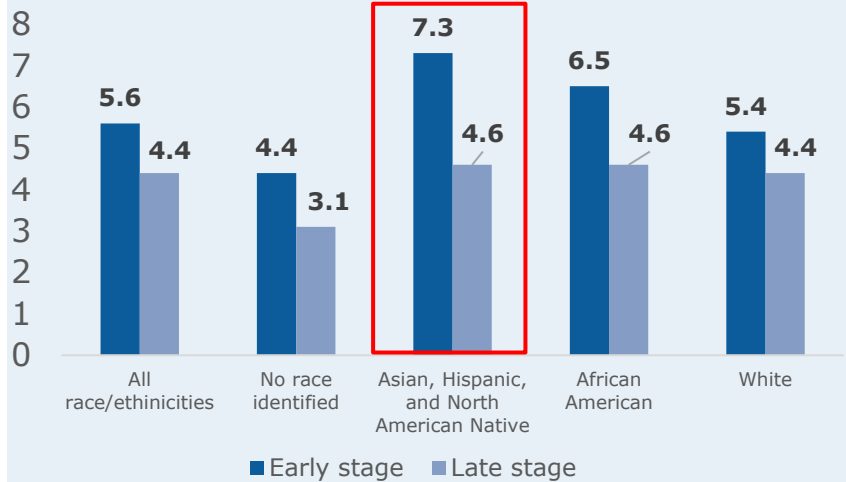
## Race and Ethnicity

### Diagnosis

*Underrepresented patient demographics have a diagnostic delay*

- African American, Asian, Hispanic, and North American Native patients are diagnosed later than White patients

**Average Time From Hematuria Diagnosis to Bladder Cancer Diagnosis (30-Day Months) by Race/Ethnicity**

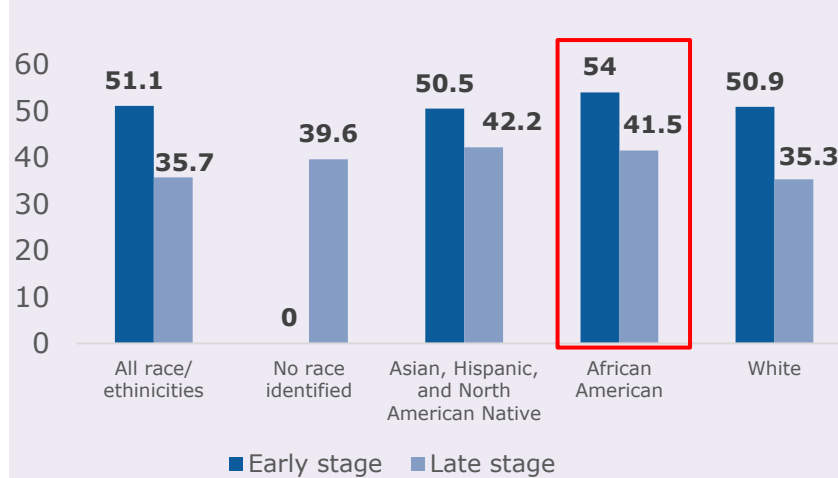


### Treatment

*African American patients are less likely to receive guideline-based treatment*

- African Americans have 21% lower odds of receiving guideline-based treatment compared to White or Hispanic patients

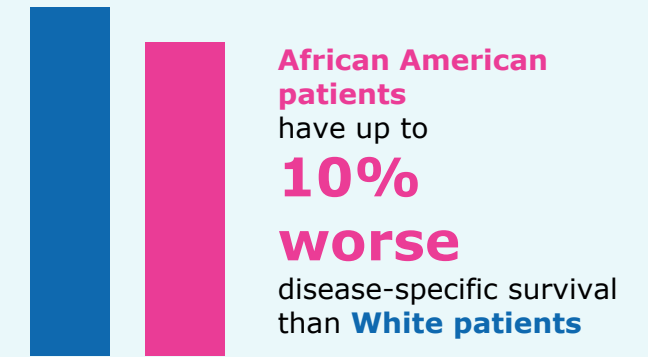
**Average Days From Bladder Cancer Diagnosis to Initial Treatment**



### Outcomes

*African Americans are more likely to die from bladder cancer than White patients*

- African American patients are more likely to die from bladder cancer within **3 years** of diagnosis



## Disparities in Bladder Cancer

**Access to Care*****Academic centers more likely to offer optimal treatment options***

Patients treated at academic medical centers were more likely to receive optimal treatment of neoadjuvant chemotherapy followed by chemoradiotherapy. This may be related to greater access to multidisciplinary care, facilities, and specialists required for chemoradiotherapy.<sup>1</sup>

***African American patients' care more likely to be managed in a community setting***

African American patients are more likely to be treated at community hospitals (which may have resource gaps) than tertiary cancer centers and are less likely to receive guideline-recommended treatment.<sup>2</sup>

***Rural areas or lower incomes experience more peri-operative challenges***

Patients living in rural areas and of lower socioeconomic status are less likely to receive neoadjuvant chemotherapy and more likely to experience delays in surgery.<sup>2</sup>

***Concerns with type of insurance***

Patients with bladder cancer without insurance are especially likely to be distressed and anxious about practical concerns, such as the cost of treatment, transportation issues, time off from work, and an available support system for advanced treatment.<sup>2</sup>

**Uninsured and Medicaid-insured patients are likely to experience delays in treatment longer than 90 days<sup>2,\*</sup>**

## Disparities in Bladder Cancer

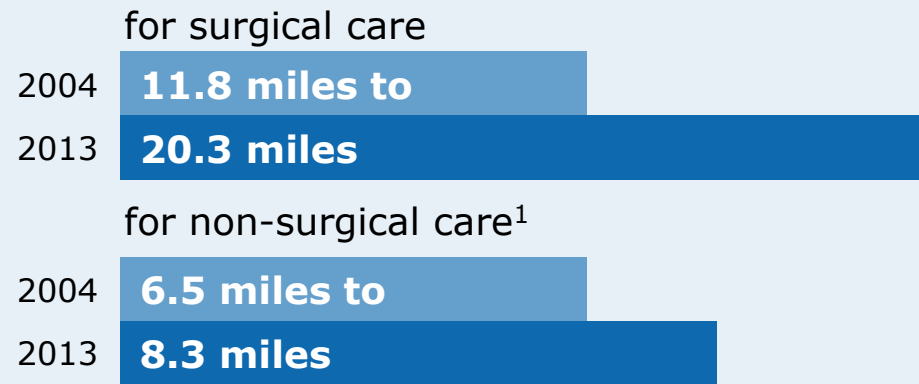
### Access to Care (contd.)

#### **Geographic reality of specialized health services affects suburban and rural patients**

- Centers of Excellence are concentrated in urban areas, limiting access for patients living in suburban and rural areas<sup>1</sup>

#### **More people have to travel farther away to get the care they need**

- Median travel distance has increased from:



#### **Majority of US counties without a urologist**

- Clinical practice staffing issues affect quality of care to patients as many states experience shortages in the number of practicing urologists<sup>1</sup>



#### **Bias towards urologists as mostly relevant for male health**

- Many women see urologists as “doctors for men” and prefer to see primary care providers or gynecologists for hematuria<sup>1</sup>
- Primary care and gynecology providers often attribute hematuria to urinary tract infection in women and will treat with antibiotics without undergoing further workup<sup>1</sup>

US: United States

1. Association of Community Cancer Centers. Understanding and mitigating disparities in bladder cancer care. Published April 2022. Accessed October 17, 2024. [www.accc-cancer.org/docs/projects/bladder-cancer/understanding-and-mitigating-disparities-in-bladder-cancer-care.pdf](http://www.accc-cancer.org/docs/projects/bladder-cancer/understanding-and-mitigating-disparities-in-bladder-cancer-care.pdf) 2. Opendatasoft. Counties - United States of America. Accessed October 16, 2024. <https://public.opendatasoft.com/explore/dataset/georef-united-states-of-america-county/analyze>

## Disparities in Bladder Cancer

# Clinical Trials



**Clinical trials offer better outcomes for patient groups enrolled in the clinical trial compared to patients not enrolled in clinical trials.<sup>2</sup>**

### Clinical trial cohorts fall short in representing the “typical” bladder cancer patient

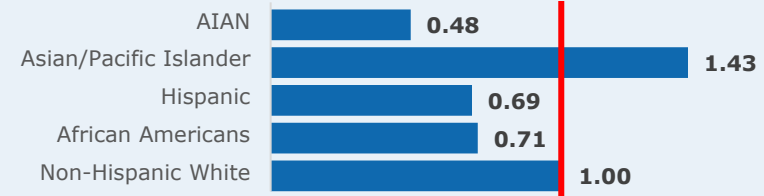
- Median age for bladder cancer diagnosis is 73 years.<sup>1</sup> While <25% of adults in clinical trials were of ≥70 years.<sup>2</sup>
- Patients enrolled in trials are generally fitter and have fewer comorbidities than average older adult in the general population and may not fully represent the concerns of all older adults<sup>2</sup>

### Underrepresentation in clinical trials

- Recent registrational trials for bladder cancer enrolled predominantly White patients.<sup>2</sup> African Americans and Hispanic patients were underrepresented in trials compared to Non-Hispanic White patients in the United States.<sup>3</sup>

Race/Ethnicity	Bladder cancer incidence over corresponding years*	Number of trial participants <sup>†</sup>
Non-Hispanic White	194,946	1,813
<b>African Americans</b>	<b>12,985</b>	<b>87</b>
<b>Hispanic</b>	<b>10,615</b>	<b>69</b>
Asian/Pacific Islander	4,436	59
AIAN	889	4

### Probability of clinical trial participation<sup>3</sup>



AIAN: American Indian/Alaska Native

\*Incidence numbers provided are based on a calculated ratio of patients enrolled in trials over total cancer incidence for corresponding years. <sup>†</sup>Patients enrolled in an NCI trial from 2015 to 2019.

1. American Cancer Society. Key Statistics for Bladder Cancer. Revised March 12, 2024. Accessed November 4, 2024. <https://seer.cancer.gov/statfacts/html/urinb.html>

2. Hoffman-Censits J, et al. *Am Soc Clin Oncol Educ Book*. 2021;41:e174-e181. 3. Javier-DesLoges J, et al. *Urol Oncol*. 2022;40(5):199.e15-199.e21.

# Efforts to Address Disparities



## Clinical Trials

### Efforts to address these disparities by stakeholders<sup>1-3</sup>



- **Project Equity** aims to ensure that data submitted for approval of oncology medicinal products is generated in a study population that is representative of the demographics of patients for whom medicinal products are intended.<sup>1</sup>
- **Food and Drug Omnibus Reform Act (FDORA)** requires sponsors to submit diversity action plans in the early development. These will ensure that sponsors are thinking critically about the characteristics of the patient population they aim to treat when designing their clinical study.<sup>2</sup>



ASCO and ACCC jointly released resources<sup>3</sup>

- ASCO-ACCC Equity, Diversity and Inclusion Research Site Self-Assessment
- Just ASK™ Training Program

ACCC: Association of Community Cancer Centers; ASCO: American Society of Clinical Oncology; FDA: Food and Drug Administration

1. FDA. Clinical Trial Diversity- Oncology Perspective and New FDA Policies. Accessed October 16, 2024. [www.fda.gov/media/174159/download?attachment](https://www.fda.gov/media/174159/download?attachment) 2. FDA. FDA Guidance Provides New Details on Diversity Action Plans Required for Certain Clinical Studies. Press release. Published June 26, 2024. <https://www.fda.gov/news-events/press-announcements/fda-guidance-provides-new-details-diversity-action-plans-required-certain-clinical-studies> 3. ASCO. ASCO Initiatives to Improve Access & Inclusion in Clinical Research. Accessed October 16, 2024. <https://society.asco.org/news-initiatives/current-initiatives/cancer-care-initiatives/diversity-cancer-clinical-trials>

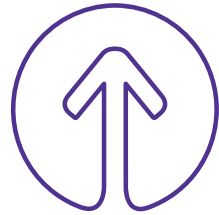


## Healthcare Disparities in Cancer

# Efforts to Address Disparities in Cancer Care



Improving access to and coverage of health insurance<sup>1</sup>



Grow patient navigator program<sup>1</sup>



Building community trust and partnerships in health care systems<sup>1</sup>



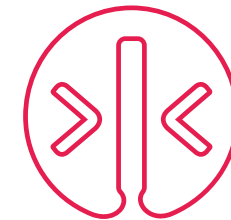
Access to tobacco cessation programs<sup>1</sup>



Enhancing communication between providers and patients<sup>1</sup>



Provide culturally and linguistically tailored programs focused on cancer awareness<sup>1</sup>



Implementation of system changes that promote health equities<sup>2</sup>

1. AACR. Overcoming cancer health disparities through science-based public policy. <https://cancerprogressreport.aacr.org/disparities/chd20-contents/chd20-overcoming-cancer-health-disparities-through-science-based-public-policy/> 2. FDA. FDA Takes Important Steps to Increase Racial and Ethnic Diversity in Clinical Trials. Published June 26, 2024. Accessed November 11, 2024. <https://www.fda.gov/news-events/press-announcements/fda-guidance-provides-new-details-diversity-action-plans-required-certain-clinical-studies>

Efforts to Address Disparities

## Diversity, Equity, and Inclusion in Clinical Trials at EMD Serono

**Our objective:** To better reflect in our clinical trials and provide benefit to the diverse patient populations that are in need and would most likely use our drug(s) for treating their disease

**An inclusive approach:** Our focus includes, but is not limited to, age, sex, gender, gender identity, race, ethnicity, religion, and their intersections

**Our commitment:** To address key barriers and limitations negatively impacting the diversity, equity, and inclusion of minority populations in clinical trials with an end-to-end strategic mindset

### Our 4 key pillars



Partner with healthcare providers who are diverse or provide care to diverse communities



Awareness and community outreach



Facilitate patient participation in clinical research



Protocol design and the use of real-world data

# Thank you