Prostate Cancer Disparities

Masters in Therapeutic Oncology Summit (MaTOS): Genitourinary Edition

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OUTLINE

- Prostate cancer at a glance
- Prostate cancer disparities: incidence, mortality, treatment
- Factors contributing to prostate cancer disparities
- Efforts to reduce prostate cancer disparities
- Summary

PROSTATE CANCER AT A GLANCE

Incidence & Mortality

- Prostate cancer is the most commonly diagnosed cancer among American men, excluding skin cancers[1]
- In 2025, approximately **313,780 new cases** of prostate cancer will be diagnosed in the US, accounting for **~30% of all new cancer diagnoses among men**[1]
- There has been a concerning rise in late-stage prostate cancer cases at diagnosis, with an average annual increase of 6.7% between 2011 and 2021[2]
- Overall prostate cancer mortality in the US has decreased due to improved screening and therapies[1]

Male

Estimated New Cases

Prostate	313,780	30%
Lung & bronchus	110,680	11%
Colon & rectum	82,460	8%
Urinary bladder	65,080	6%
Melanoma of the skin	60,550	6%
Kidney & renal pelvis	52,410	5%
Non-Hodgkin lymphoma	45,140	4%
Oral cavity & pharynx	42,500	4%
Leukemia	38,720	4%
Pancreas	34,950	3%
All sites	**1,053,250**	

Male

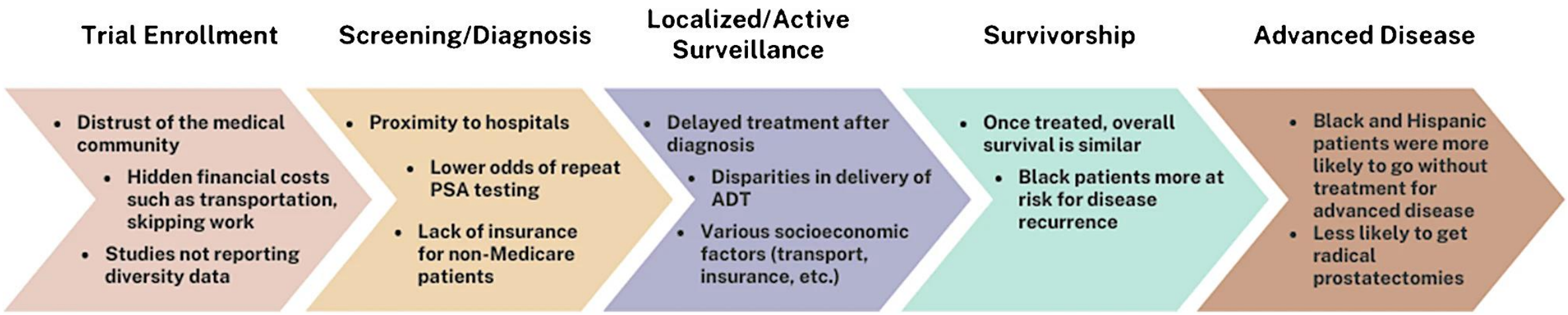
Estimated Deaths

Lung & bronchus	64,190	20%
Prostate	35,770	11%
Colon & rectum	28,900	9%
Pancreas	27,050	8%
Liver & intrahepatic bile duct	19,250	6%
Leukemia	13,500	4%
Esophagus	12,940	4%
Urinary bladder	12,640	4%
Non-Hodgkin lymphoma	11,060	3%
Brain & other nervous system	10,170	3%
All sites	**323,900**	

1. Siegel RL. CA Cancer J Clin. 2025. 2. Van Blarigan EL. JAMA Netw Open. 2025.

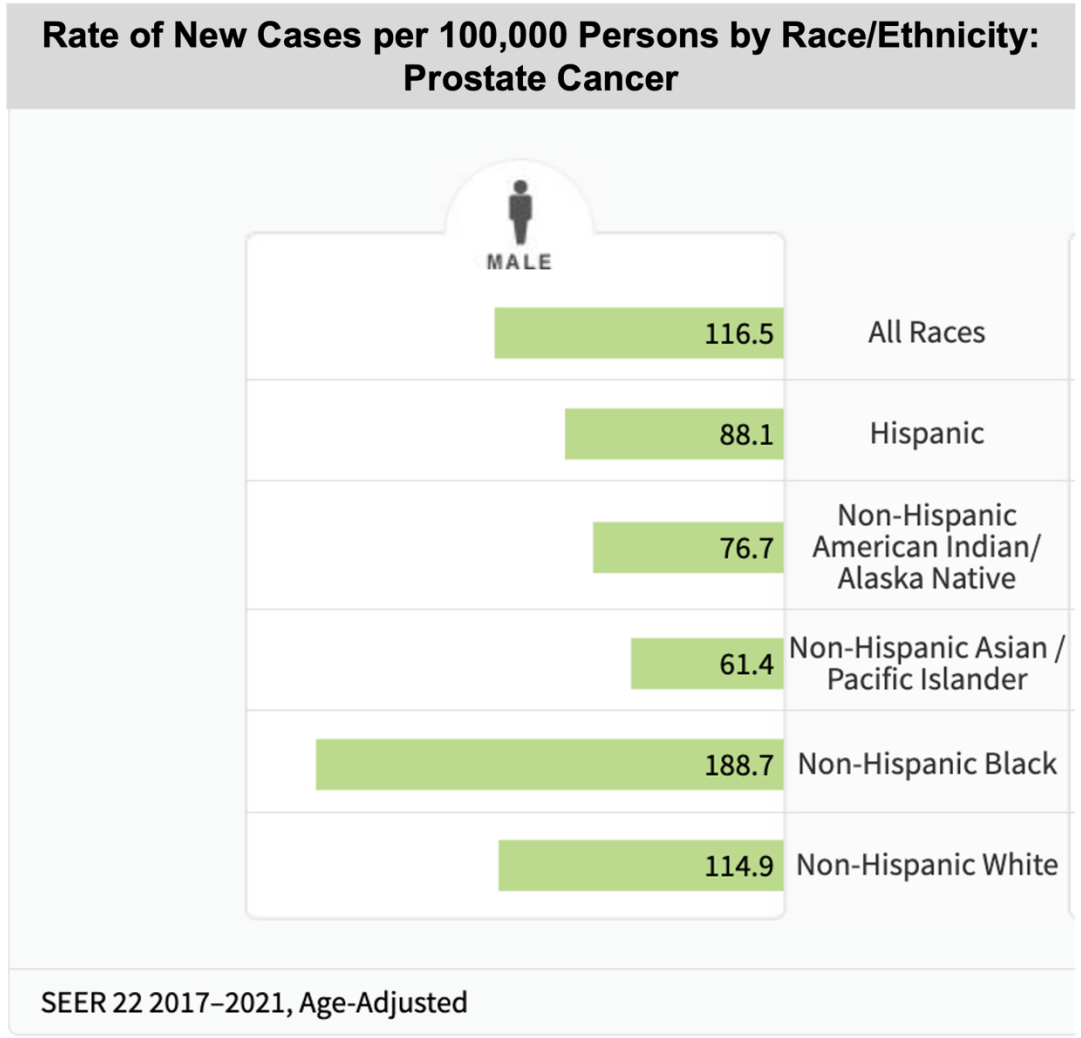
PROSTATE CANCER DISPARITIES

Disparities exist along the continuum of prostate cancer care



1. AACR Cancer Disparities Progress Report 2022. 2. Fu J. Curr Oncol Rep. 2023.

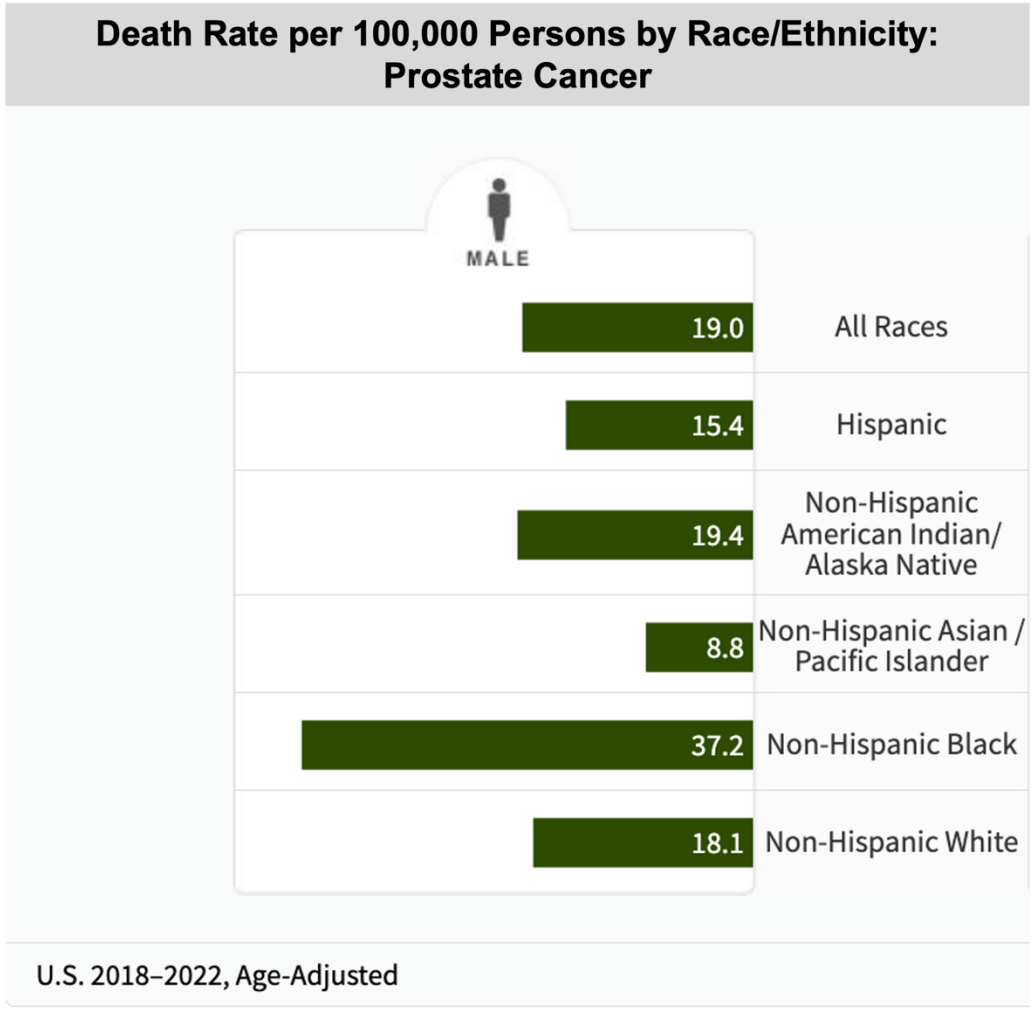
DISPARITIES IN PROSTATE CANCER INCIDENCE



- Black men are **1.7 times more likely to be diagnosed** with prostate cancer than White men[1]
- At diagnosis, Black men are[2]:
  - A younger age
  - Have higher Gleason scores
  - Have higher PSA levels

1. SEER 22 2017–2021 Cancer Stat Facts: Prostate Cancer. 2. Tewari A. BJU Int. 2005.

DISPARITIES IN PROSTATE CANCER MORTALITY



- Men of African ancestry experience significantly higher prostate cancer mortality rates compared to other racial and ethnic groups worldwide[1]
- The highest mortality rates are observed in the Caribbean, Sub-Saharan West Africa, and among Black men in the US[1]
- In the US, Black men are **2.1 times more likely to die** from prostate cancer compared to White men.[2]

1. Sung H. CA Cancer J Clin. 2021. 2. SEER 2018-2022 Cancer Stat Facts: Prostate Cancer.

DISPARITIES IN PROSTATE CANCER MORTALITY

- **Cancer Statistics for African American and Black People 2025:**
  - The overall cancer mortality rate declined from 1991 to 2022 by 49% and 33% in Black men and women, respectively, in the US
  - However, Black people continue to have a disproportionately elevated cancer burden compared to other population groups
  - The **risk of cancer death for Black individuals is two-fold** that of White individuals for myeloma, **prostate,** endometrial, and stomach cancers
  - **Survival is lower in Black people than in White people for almost every type and stage of cancer**, with the largest gaps for melanoma, endometrial, and cervical cancers

Saka AH. CA Cancer J Clin. 2025.

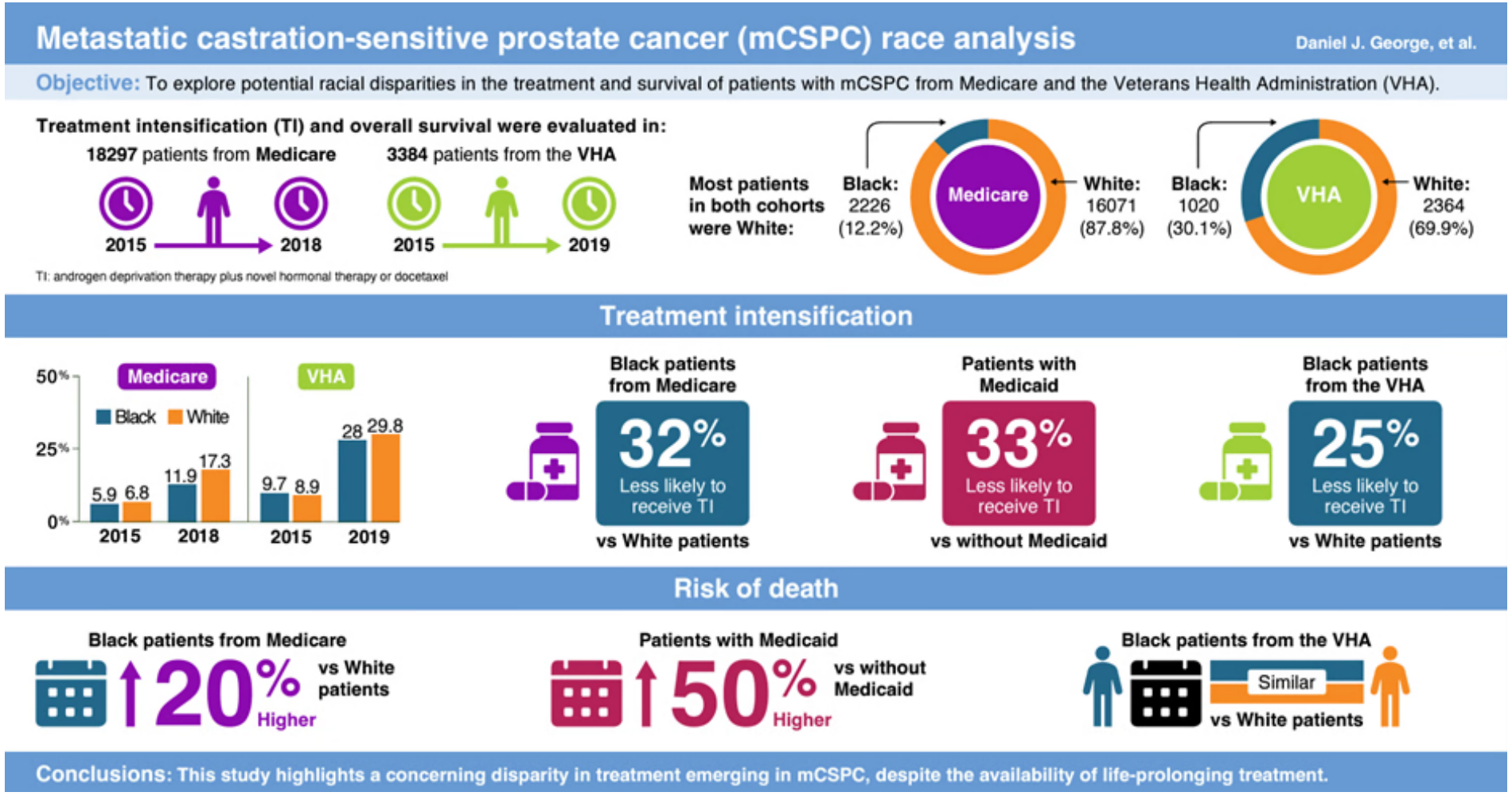
DISPARITIES IN PROSTATE CANCER TREATMENT

- Black men are less likely to receive recommended screening tests for prostate cancer; these differences persist in the setting of higher socioeconomic status[1,2]
- They are also less likely to undergo surgery or radiation therapy for localized prostate cancer, even when diagnosed at an early stage [1]
- Black men were less likely to receive ADT and NHA compared to White men[3,4]
- Black men were more likely to experience delays in receiving definitive local therapy or initiating systemic treatment[1,4]

1. Lillard JW. Cancer. 2022. 2. Lowder D. Cancer Lett. 2022. 3. Carson AP. J Pain Symptom Manage. 2010. 4. Ma TM. JAMA Netw Open. 2023.

DISPARITIES IN PROSTATE CANCER TREATMENT

Emerging Racial Disparities among Medicare Beneficiaries and Veterans with mCSPC

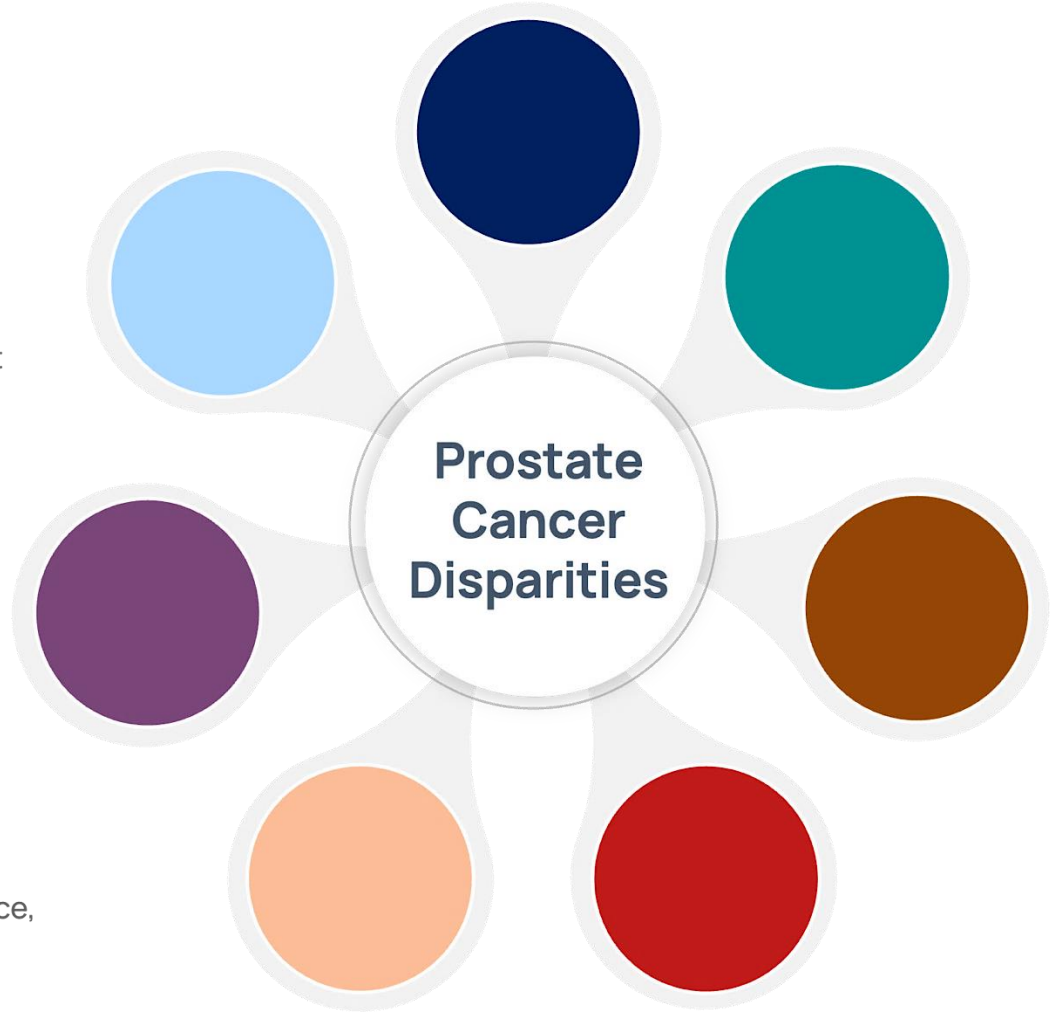


George DJ. Prostate Cancer Prostatic Dis. 2024.

CONSEQUENCES OF PROSTATE CANCER DISPARITIES

- Prostate cancer disparities lead to:
  - Poorer health outcomes
  - Higher mortality rates
  - Less personalized therapies
- They also contribute to social and economic inequalities

FACTORS CONTRIBUTING TO PCa DISPARITIES



Socioeconomic

Education, income, employment status, occupation

Behavioral

High-fat diet, tobacco use, alcohol use, sedentary lifestyle

Environmental

Housing setting, military service, exposure to carcinogens

Access to Health Care

Coverage, quality of insurance, quality of care, proximity to tertiary centers, access to clinical trials

Biological Factors

Ancestry-related differences in genomic alterations, gene expression, epigenetic modifications, tumor metabolism, tumor microenvironment, immunogenicity, therapeutic response and resistance

Cultural

Health beliefs, health-related attitudes

Psychosocial

Mental health, stress, isolation

1. Lowder D. Cancer Lett. 2022. 2. Stopsack KH. Clin Cancer Res. 2022. 3. Shikany JM. Am J Prev Med. 2018.
4. Zhu K. Cancer Epidemiol Biomarkers Prev. 2009. 5. Ansbaugh N. Cancer. 2013. 6. Badal S. Prostate. 2020.

EFFORTS TO REDUCE PROSTATE CANCER DISPARITIES

AT THE HEALTH POLICY LEVEL

- Congress enacted the NIH Revitalization Act of 1993 that addressed representation of women and minority patients in NIH-sponsored research through the creation of Minority Community Clinical Oncology Programs[1]
- Increasing access to healthcare and affordable screening tests for Black men
- **PCF Screening Guidelines for Black men in the US (2024)[2]:**
  - Data from modeling studies indicate **prostate cancer develops 3 to 9 years earlier in Black men** compared with non-Black men
  - **Lowering the age for baseline PSA testing to 40 to 45 years of age** from 50 to 55 years of age, followed by regular screening until 70 years of age (informed by PSA values and health factors), could reduce prostate cancer mortality in Black men (approximately 30% relative risk reduction) without substantially increasing overdiagnosis

1. United States Congress. Public Law No. 103-43. 1993. 2. Garraway IP. NEJM Evidence. 2024.

EFFORTS TO REDUCE PROSTATE CANCER DISPARITIES

AT THE BASIC/TRANSLATIONAL RESEARCH LEVEL

- Promoting research into the genetic and environmental factors underlying prostate cancer disparities
- Two issues have impeded efforts towards understanding the role of genetic ancestry in cancer risk and treatment response: inaccurate ancestry reporting and severe underrepresentation of racial/ethnic minority patients in sequencing cohorts and pre-clinical model biobanks

  → generation of genetically diverse pre-clinical PDX and PDO models from racial/ethnic minorities

Halmai NB and Carvajal-Carmona LG. Trends Cancer. 2022.

EFFORTS TO REDUCE PROSTATE CANCER DISPARITIES

AT THE CLINICAL RESEARCH LEVEL

- **Abiraterone Race in Metastatic Castrate-resistant Prostate Cancer Trial (NCT01940276)**[1]
  - Prospective clinical trial of 100 men with mCRPC (50 Black, 50 White) treated with abiraterone
  - Black men demonstrated similar median rPFS to White men (16.6 vs 16.8 months)
  - Black men demonstrated deeper PSA responses (PSA50-RR: 74% vs 66%) and longer time to PSA progression compared to White men (16.6 vs 11.5 months)

- **RESPOND Study:** to identify factors associated with higher risk and more aggressive forms of prostate cancer in Black men

1. George DJ. Cancer. 2021.

EFFORTS TO REDUCE PROSTATE CANCER DISPARITIES

AT THE PATIENT CARE LEVEL[1-3]

- Implementing patient navigation services to guide patients through the healthcare system, address logistical barriers (transportation, childcare), and ensure timely access to care
- Educating healthcare providers about prostate cancer disparities and risk-adapted screening for higher-risk populations
- Using multidisciplinary clinics to facilitate more effective shared decision-making
- Tailoring communication and care plans to individual patient needs and preferences
- Increasing enrollment of underrepresented populations in clinical trials

1. Fu J. Curr Oncol Rep. 2023. 2. Washington C. Am Soc Clin Oncol Educ Book. 2022. 3. Association of Community Cancer Centers. 2022.

SUMMARY

- Advancements in treatment and early detection have contributed to a decline in prostate cancer mortality rates
- Disparities across the continuum of prostate cancer care continue to exist
- Prostate cancer disparities stem from a complex interplay of biological, social, behavioral, and environmental factors
- A collaborative, multilevel approach is needed to effectively address disparities
- It is crucial to recognize and address prostate cancer disparities to ensure equitable healthcare access and outcomes for all men

THANK YOU!

Our patients, families, patient advocates, & cancer advocacy organizations!

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