Prostate Cancer Racial and Ethnic Disparities in New Jersey

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Prostate cancer—which can only affect those assigned male at birth—is the second leading cause of new cancer diagnoses (113.2 for every 100,000 people) out of all cancers in the United States (US) from 2017-2021 according to the Centers for Disease Control and Prevention (CDC) United States Cancer Statistics (USCS) [1]. It is also third highest in cancer death rates in the US, with 18.8 deaths for every 100,000 people, behind only lung and bronchus cancer and female breast cancer [1].

Prostate Cancer in Non-Hispanic Black Men

One of the most well-known narratives throughout the healthcare field in regards to prostate cancer in the US is how greatly it affects the Non-Hispanic (NH) Black male population as compared to other race and ethnic groups. NH Black males have higher rates of both new prostate cancer diagnoses and deaths than any other group. According to the CDC's USCS 2017-2021 and 2018-2022 data, the rates were 179.7 and 37.3 for every 100,000 NH Black males, respectively [1].

Biology of Prostate Cancer

A possible explanation for this imbalance is the biological difference(s) that may exist in prostate cancer patients of African, European, or Asian ancestry [2]. Researchers have conducted in depth analyses of prostate cancer tumor markers, where biological tumor differences were shown through acquired mutations and immunobiology. It is believed that these alterations could be a result of "ancestryrelated factors, including differences in immune function" [2]. Researchers also deduced that these differences could "affect early disease detection and the response to therapy; and contribute to a distinct disease presentation of prostate cancer among [males] of African ancestry" [2]. This includes excess mortality in these patients in the US, and even globally [2]. While health disparities are typically a result of social or economic factors, this cancer type in particular has the greatest disparity and poses a challenge for cancer researchers. Biological factors could be an important contributing factor to this higher prostate cancer risk among African American men.

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Prostate Cancer in New Jersey

In New Jersey (NJ), the rate of new prostate cancer diagnoses from 2017-2021 across all racial and ethnic groups was much higher than that of the entire nation (142.6 for every 100,000 males). However, the death rate in NJ was lower (16.3 for every 100,000) compared to the rest of the country (18.8 for every 100,000). As for the NH Black males in the state, these rates were significantly higher at 221.5 and 35.7 per 100,000, respectively.

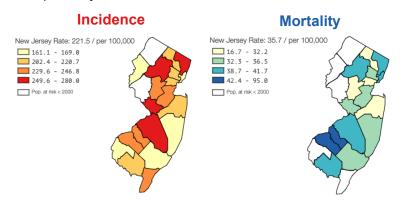


Figure 1. Age-Adjusted Prostate Cancer Incidence and Mortality Rates in the NH Black Population in New Jersey 2017-2021 by County [3, 4].

These rates are not only much higher than the nation's overall rates, but they are also higher than the prostate cancer rates for NH White males in NJ, which were 135.6 and 15.8 per 100,000 for new diagnoses and deaths during the years 2017-2021, respectively [3, 4].

Dissecting This Disparity

To truly understand the depths of this health disparity, it is important to establish that the Black population in America is most commonly affected by social determinants of health, arguably due to deep-rooted systemic racism, impacting the health outcomes of this population in particular. Despite the progress that the US has made in terms of equal rights across racial and ethnic minorities in this country, Black Americans in particular still face extreme disadvantages everyday [5]. From continued racism and discrimination to residential segregation and lack of generational wealth, Black Americans are unfortunately born into high and chronic stress situations that often lead to poorer health outcomes [5].

This includes having higher risks of diseases, especially chronic diseases such as cancer. A study that stood out when working to understand this disparity as it translates to prostate cancer was a study where researchers examined how Black men's health outcomes would differ if they were given equal access to care and treatment options that are typically readily available for other members of the patient population. The study claims that "when access to care is equal and treatment is standardized for all patients, Black [males] have similar or better prostate cancer outcomes" [6].

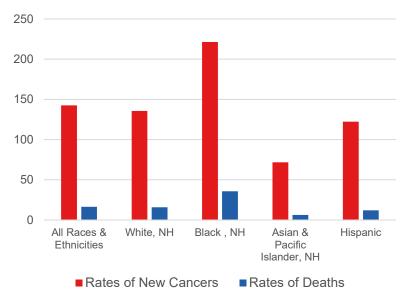


Figure 2. Age-Adjusted Prostate Cancer Incidence and Mortality Rates in New Jersey by Race and Ethnicity, 2017-2021. Rates per 100,000 [3, 4]. https://www.cancer-rates.com/nj/

Recent Trends and Outlook

Both the rates of new cases and deaths in NJ have decreased significantly over the past ten to twenty years [7, 8]. In particular, according to the New Jersey State Health Assessment Data (NJSHAD) "the rate among Blacks has halved since 2000 but remains more than double the rates among other racial/ethnic groups" [8]. **Figure 3** demonstrates the trends of new prostate cancer diagnoses in New Jersey using 2017-2021 data.

The most important thing to focus on moving forward is decreasing the burden of prostate cancer among the Black population in New Jersey. Black males in NJ should continue to practice early detection and diagnosis

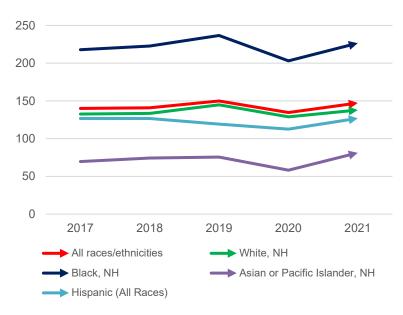


Figure 3. Age-Adjusted Prostate Cancer Incidence in New Jersey, 2017-2021. Rates per 100,000

Source: Incidence – SEER Research Plus Data, 17 Registries, Nov 2023 Sub (2000-2021).

strategies, making an informed decision with their doctor on whether screening is right for them. The New Jersey Office of Cancer Control and Prevention (OCCP) also continues to coordinate comprehensive cancer control efforts through prevention, early detection, treatment, rehabilitation, and palliation [8].

Prostate Cancer Screening

Those assigned male at birth should discuss their risk for prostate cancer and options for screening with their medical provider if they are:

- Age 50 and are at average risk and are expected to live at least ten more years.
- Age 45 and at high risk, such as African Americans and those who have a first-degree relative—father or brother—diagnosed with prostate cancer before the age of 65.
- Age 40 and at even higher risk such as those with more than one first-degree relative diagnosed before the age of 65)

Please visit https://screennj.org/prostate-cancer-screening-and-prevention/ for more information regarding the types of screening available and more helpful resources.

For more information about Rutgers Cancer Institute Cancer Health Equity Center of Excellence, click here or visit https://www.cinj.org/outreach/cancer-health-equity-center-excellence

For more information regarding screening guidelines, recommendations, and other resources, refer to the following links:

Cancer Screening Recommendations from the United States Preventive Services Task Force (USPSTF):

https://www.uspreventiveservicestaskforce.org/uspstf/topic_search_results?topic_status=P&category%5B%5D=15&searchterm=.

Cancer Screening Guidelines from the American Cancer Society (ACS): https://www.cancer.org/cancer/screening/american-cancer-society-guidelines-for-the-early-detection-of-cancer.html.

ScreenNJ for prevention, education, and detection information: https://screennj.org/.

For information regarding Rutgers Cancer Institute clinical trials (what is open, at which sites, general clinical trials page, interest in diversity in clinical trials, etc.) click here or visit <a href="https://www.cinj.org/clinical-trials/find-clinical-trial