

Prostate Cancer Outcomes by Race and Treatment Site

Seira Kurian, Gail Washington, Karen Nielsen-Menicucci, and Smita Bhatia

There continues to be an increase in prostate cancer incidence since 1995 such that the current lifetime risk for developing prostate cancer for men is 1 in 6. Furthermore, the age-adjusted mortality rates for African-Americans with prostate cancer are more than double that seen in the Caucasian population, with African-American rates at 64/100,000 while Caucasian rates are at 26.2/100,000.

This difference accounts for about 40% of the overall cancer mortality disparity between African American and Caucasian men. There is evidence to indicate that morbidity rates are also higher in African-Americans when compared to Caucasians. Whether differences in mortality and morbidity could be eliminated when allowed equal access to care remains unclear. Population-based studies have found that overall survival as well as prostate cancer-specific survival differences between African-American and Caucasian patients persisted even when stratified for treatment modality and after controlling for age, co-morbidity score, disease stage, as well as socioeconomic status (SES) indicators. Institution-based studies, on the other hand, show that mortality differences by race are mitigated once equivalent treatment is provided.

The purpose of this study is to determine whether African-Americans utilize NCI-designated centers less frequently and whether this has an impact on mortality and morbidity, an aspect that has not been examined thus far. To examine this issue the following hypotheses will be tested on a **population-based** sample available through the Los Angeles Cancer Registry:

- Hypothesis 1:** African-Americans with newly diagnosed prostate cancer have a higher incidence of mortality and morbidity compared to Caucasians after controlling for age, stage, grade and treatment modality.
- Hypothesis 2:** Patients with newly diagnosed prostate cancer, receiving care at NCI designated Cancer Centers have a lower incidence of mortality and morbidity, irrespective of race and ethnicity, when compared with those treated at community hospitals.
- Hypothesis 3:** African-Americans and Caucasians receiving care at NCI-designated Cancer Centers have comparable mortality and morbidity.
- Hypothesis 4:** Proportionately fewer African-Americans utilize NCI centers when compared to Caucasians.

Specific Aims: Utilizing the resources provided by the CSP

- Aim 1:** Compare the morbidity and mortality rates between African-Americans and Caucasians with newly diagnosed prostate cancer in Los Angeles County after controlling for age, stage, grade and treatment modality.
- Aim 2:** Compare the morbidity and mortality rates for prostate cancer between NCI cancer centers and non-NCI cancer centers in Los Angeles County.
- Aim 3:** Compare the morbidity and mortality rates by race for patients with prostate cancer receiving care within NCI cancer centers
- Aim 4:** Describe the proportion of African-Americans and Caucasians seeking treatment for newly diagnosed prostate cancer at NCI treatment centers and at non-NCI centers, and understand the role of socioeconomic and insurance status in accessing care at the NCI-designated treatment centers versus non-NCI centers.