

Health Care Access and Prostate Cancer Treatment in North Carolina: HCaP-NC

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Background: Prostate cancer (CaP) mortality rates for African Americans (AA) are the highest among racial and ethnic groups within the US. This disparity is even more pronounced in North Carolina, where the estimated age-adjusted risk of CaP death in 2003 was 170% higher for AA than Caucasian Americans (CA). Racial differences in healthcare access, care seeking, patient characteristics, and prostate cancer aggressiveness have been proposed as underlying causes of disparities in prostate cancer outcomes, but previous studies have been based on selected patient populations, small numbers of African Americans or limited data, and very little is known about racial differences in the quality of treatment or the health related quality of life (HRQOL) of prostate cancer patients. Baseline data from the North Carolina – Louisiana Prostate Cancer Project (PCaP), a multidisciplinary population-based study of prostate cancer aggressiveness at diagnosis (DAMD 17-03-2-0052), demonstrate racial differences among North Carolina patients with regard to health insurance (15% of AA vs. 2% of CA with no insurance or Medicaid only, 39% vs. 13% with Medicare/VA insurance only), income (39% vs. 11% at or below 200% of the poverty level), usual source of care (68% vs. 90% at a private doctor's office), and primary treatment (63% vs. 72% radical prostatectomy (RP), 2% vs. 5% robotic RP). These preliminary findings suggest that differences in access and treatment may at least partly explain disparities in prostate cancer outcomes.

Objective/hypothesis: Our overall goal is to identify modifiable factors that influence racial disparities in prostate cancer outcomes. We hypothesize that the quality of treatment received and the health related quality of life of prostate cancer patients will differ according to race and access to healthcare, even after accounting for patient and disease characteristics, type of primary treatment and other factors.

Specific Aims: (1) To develop a data collection tool to measure treatment quality based on concordance with consensus recommendations defined by patient and tumor characteristics and primary treatment; (2) to quantify racial differences in the type and quality of treatment and health care received by prostate cancer patients over time and evaluate potential causes of these differences, including differences in health insurance and individual access to care, community healthcare availability, patient characteristics and disease characteristics; and (3) to quantify racial differences in the HRQOL of patients over time and evaluate potential causes, including the type and quality of treatment and prostate cancer progression.

Study Design: The proposed HCaP-NC is a prospective follow-up study of approximately 335 AA and 335 CA prostate cancer patients from the North Carolina – Louisiana Prostate Cancer Project (PCaP) cohort that will be enrolled 2-3 years after diagnosis and followed for up to 6 years (average 3.8 years). Data collected from annual telephone interviews, medical records, and community-level data sources will be analyzed in conjunction with baseline PCaP data (available through a data sharing agreement) to quantify differences in treatment and health related quality of life over time. Multilevel contextual models will be used to estimate effects of individual and community-level healthcare access (including health insurance) on treatment quality and health related quality of life after accounting for disease characteristics, age, comorbidity, type of primary treatment, time since diagnosis and other factors.

Cancer Relevance: The role of healthcare access and infrastructure on pronounced racial disparities in prostate cancer outcomes is unclear. The proposed study will provide a cost-effective means of evaluating both individual- and community-level influences on prostate cancer treatment and health related quality of life, and results will be more generalizable to underserved African American, low-income, and rural men than previous studies of patients enrolled from academic institutions or selected practices. Ultimately this research may be extended to Louisiana PCaP participants and analyses of the influence of healthcare access and treatment quality on prostate cancer progression and mortality.