# Knowledge of Hereditary Prostate Cancer Among High-Risk African American Men

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**Purpose/Objectives:** To measure knowledge of hereditary prostate cancer in a group of high-risk African American men.

**Design:** Cross-sectional, correlational pilot study.

**Setting:** Four geographic sites: Detroit, MI; Houston, TX; Chicago, IL; and Columbia, SC.

**Sample:** 79 men enrolled in the African American Hereditary Prostate Cancer Study.

**Methods:** Telephone interviews.

**Main Research Variables:** Knowledge of hereditary prostate cancer.

**Findings:** Knowledge of hereditary prostate cancer was low.

**Conclusions:** The high percentage of incorrect responses on questions that measure genetic testing, prevention, and risk based on a positive family history highlights educational needs.

**Implications for Nursing:** A critical need exists for nurses to educate high-risk African American men about hereditary prostate cancer.

## Key Points . . .

- Nurses need to educate high-risk patients about hereditary prostate cancer.
- Hereditary prostate cancer accounts for 5%–10% of all reported cases of prostate cancer.
- Knowledge of hereditary prostate cancer among high-risk African American families may be low.
- Older men may be more knowledgeable than younger men regarding hereditary prostate cancer.

The genetic revolution has led to the availability of genetic susceptibility testing for hereditary colorectal, breast, and skin cancers. Hereditary prostate cancer susceptibility testing is not currently available, but it is anticipated to become a reality in the future (Smith, Mettlin, Davis, & Eyre, 2000; Stanford & Ostrander, 2001). Cutting-edge published results from the African American Hereditary Prostate Cancer Study identified several regions of the human genome containing genes that, when altered, increase the risk of hereditary prostate cancer development (Baffoe-Bonnie et al., 2007; Kittles et al., 2006). Linkage analysis with 77 African American families found evidence of linkage to five hereditary prostate cancer linkage peaks (2p21, 11q22, 17p11, 22q12, and Xq21), supporting the existence of genetic susceptibility for hereditary prostate cancer (Baffoe-Bonnie et al.). Also, evidence for the association of the EphB2 nonsense mutation with the risk of prostate cancer is reported in this African American cohort (Kittles et al.).

Other cohorts have displayed additional hereditary prostate cancer regions (Karayi, Neal, & Markham, 2000; National Cancer Institute, 2006a). HPC1, the first major susceptibility locus for hereditary prostate cancer identified on the long arm of chromosome 1 (1q24-25) (Cooney et al., 1997; Goode et al., 2000; Gronberg et al., 1999; Gronberg, Isaacs, et al., 1997; Gronberg, Xu, et al., 1997; Hsieh et al., 1997; Xu, 2000), has been confirmed by four studies (Balbay et al., 1999; Berry et al., 2000; Cooney et al.; Goode et al., 2001). However, two studies have not found support for HPC1 at 1q24-25 (Goode et al., 2000; Xu). Additional loci that have been identified and confirmed are HPC2/ELAC2 (17p11 and 16q23) (Ostrander & Stanford, 2000; Rebbeck, 2000), HPCX (Xq27-28) (Xu et al., 1998), Xq25-q27 (Stephan et al., 2002), and HPC20 (20q13) (Berry et al., 2000; Bock et al., 2001; Schleutker et al., 2000; Zheng et al., 2001). However, Xu, Zheng, Carpten, et al. (2001) and Xu, Zheng, Hawkins, et al.

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