Prostate Cancer

Cancer of the prostate was the third most frequently occurring and the fifth leading cause of cancer death in North Carolina from 2010 to 2014. It is anticipated that 7,577 males in North Carolina will be diagnosed with and 990 males will die of prostate cancer in 2017.

Incidence
The percentage of cases of prostate cancer from 2010 to 2014 is displayed by age group in Figure 1. Over 95 percent of prostate cancer cases were diagnosed in men ages 45 to 84.

Between 2010 and 2014, the age-adjusted incidence rate for prostate cancer in North Carolina was 125.0 per 100,000 males per year. Non-Hispanic black men are much more likely to be diagnosed with prostate cancer than men of other races and ethnicities (Figure 2).

From 2003 to 2014, prostate cancer incidence rates have decreased for whites and minorities (Figure 3).
Stage at Diagnosis*
Figure 4 shows the stage distribution of prostate cancer cases diagnosed between 2010 and 2014. About 79 percent of prostate cancer cases were diagnosed at the localized stage.

Mortality
Between 2010 and 2014, the percentage of prostate cancer deaths is displayed by age group in Figure 5. About 59 percent of deaths occurred in men ages 65 to 84.

From 2003 to 2014, prostate cancer mortality rates have decreased for whites and minorities (Figure 7).

Data Sources and Methods
Data on North Carolina cases were obtained from the North Carolina Central Cancer Registry (CCR). Hospitals are the primary source of data. The CCR supplements hospital data with reports from physicians who diagnose cases in a non-hospital setting. The CCR also collects data from pathology laboratories and freestanding treatment centers. Data on cancer deaths were obtained from Statistical Services in the State Center for Health Statistics. Population data from the National Center for Health Statistics were used in the denominators of the rates, which are expressed per 100,000 persons. Rates were age-adjusted using the 2000 United States Census data. To examine trends, three-year overlapping rates were used to improve stability over time. Stage at diagnosis was defined according to Surveillance, Epidemiology, and End Results Summary Stage guidelines as in situ, localized, regional, distant and unknown/NA. For further information about the North Carolina CCR, please visit www.schs.state.nc.us/units/ccc.

The age-adjusted mortality rate of prostate cancer from 2010 to 2014 was 21.5 per 100,000 males per year. Non-Hispanic black men are much more likely to die from prostate cancer than men of other races and ethnicities (Figure 6).

* According to the National Cancer Institute (NCI), “many cancer registries, such as NCI’s Surveillance, Epidemiology, and End Results Program (SEER), use summary staging. This system is used for all types of cancer. It groups cancer cases into five main categories: In situ — Abnormal cells are present only in the layer of cells in which they developed. Localized — Cancer is limited to the organ in which it began, without evidence of spread. Regional — Cancer has spread beyond the primary site to nearby lymph nodes or organs and tissues. Distant — Cancer has spread from the primary site to distant organs or distant lymph nodes. Unknown — There is not enough information to determine the stage.” Additional information on staging can be found at www.cancer.gov/cancertopics/factsheet/detection/staging.