Cancer of the kidney was the eighth most frequently occurring and the 12th leading cause of cancer death in North Carolina from 2008 to 2012. It is anticipated that 1,978 people (1,229 males and 749 females) in North Carolina will be diagnosed with and 461 people (304 males and 157 females) will die of kidney cancer in 2015.

Incidence
The percentage of cases of kidney cancer from 2008 to 2012 is displayed by age group in Figure 1. More than 85 percent of kidney cancer cases were diagnosed in people ages 45 to 84.

Between 2008 and 2012, the age-adjusted incidence rate for kidney cancer in North Carolina was 16.8 per 100,000 persons per year. Men are much more likely to be diagnosed with kidney cancer than women (Figure 2).

From 2001 to 2012, kidney cancer incidence rates have slightly increased for men and women (Figure 3).
Stage at Diagnosis*
Figure 4 shows the stage distribution of kidney cancer cases diagnosed between 2008 and 2012. More than two-thirds of kidney cancer cases were diagnosed at the localized stage.

Mortality
Between 2008 and 2012, the percentage of kidney cancer deaths is displayed by age group in Figure 5. More than half of deaths occurred in people ages 65 to 84.

From 2001 to 2012, kidney cancer mortality rates have decreased slightly for men and have remained fairly stable for women (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/ccr.

The age-adjusted mortality rate of kidney cancer in North Carolina from 2008 to 2012 was 4.0 per 100,000 persons per year (Figure 6). In all non-Hispanic races, men are much more likely to die from kidney cancer than women.

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/ccr.

* 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.