Cancer of the female breast was the most frequently occurring and the third leading cause of cancer death in North Carolina from 2008 to 2012. It is anticipated that 9,772 females in North Carolina will be diagnosed with and 1,391 females will die of breast cancer in 2015.

**Incidence**

The percentage of cases of female breast cancer from 2008 to 2012 is displayed by age group in Figure 1. Nearly half of breast cancer cases were diagnosed in females ages 45 to 64.

Between 2008 and 2012, the age-adjusted incidence rate for female breast cancer in North Carolina was 157.0 per 100,000 females per year. Hispanic women are much less likely to be diagnosed with breast cancer than women of other races and ethnicities (Figure 2).

From 2001 to 2012, breast cancer incidence rates have slightly increased for minority women and shows a declining trend for white females. (Figure 3.)
Stage at Diagnosis*
Figure 4 shows the stage distribution of female breast cancer cases diagnosed between 2008 and 2012. Half of female breast cancer cases were diagnosed at the localized stage.

Mortality
Between 2008 and 2012, the percentage of female breast cancer deaths is displayed by age group in Figure 5. Almost 80 percent of deaths occurred in people ages 45 to 84.

From 2001 to 2012, female breast 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/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.