

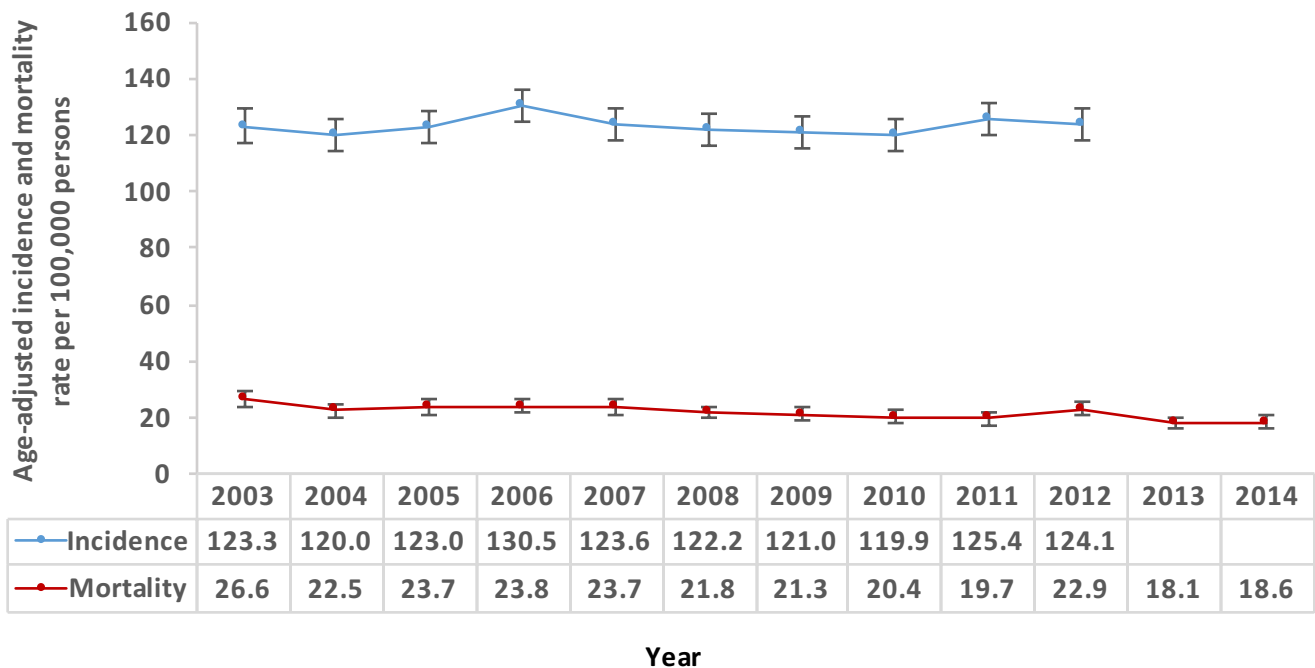
CHAPTER 5: PROFILES OF SELECTED CANCERS – FEMALE BREAST

There are different kinds of breast cancer depending on which cells in the breast turn into cancer, such as the ducts which carry milk to the nipple (ductal carcinoma), or the glands which produce milk (lobular carcinoma). Although men can get breast cancer, it is not very common. For every 100 cases of breast cancer, less than one is in men.⁷ Among Kansas women, breast cancer is the most commonly diagnosed cancer and the second leading cause of cancer death.

Female Breast Cancer Incidence and Mortality

Each year on average, nearly 2,000 breast cancers are diagnosed among Kansas females and approximately 360 Kansas females die of the disease. Age-adjusted female breast cancer incidence rates did not differ significantly during the period 2003-2012. In 2003, the age-adjusted incidence rate was 123.3 cases per 100,000 females (95% confidence interval: 117.6 to 129.1); and the age-adjusted incidence rate was 124.1 cases per 100,000 females (95% confidence interval: 118.6 to 129.8) in 2012 (Figure 5-1). However, age-adjusted female breast cancer mortality rates decreased significantly during this period from 26.6 deaths per 100,000 females (95% confidence interval: 24.1 to 29.4) in 2003 to 18.6 deaths per 100,000 females (95% confidence interval: 16.7 to 20.8) in 2014.

Figure 5-1. Age-adjusted female breast cancer incidence and mortality rates, Kansas 2003-2014.



Source: 2003-2012 Kansas Cancer Registry. 2003-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Cancer incidence data for 2013 and 2014 were not available at the time the document was created. Rates were age-adjusted to the U.S. 2000 standard population using the direct method. See Technical Appendix for details on how rates were calculated. Vertical bars indicate 95% confidence intervals. Female breast cancer incidence was defined as ICD-O-3 codes C500-C509 (excluding histology codes 9590-9989) with a behavior code indicating invasive malignancy. Female breast cancer mortality was defined as ICD-10 code C50.

⁷ "Basic Information about Breast Cancer." Division of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention.
www.cdc.gov/cancer/breast/basic_info/index.htm

Female Breast Cancer Incidence and Mortality among Race Groups

In Kansas, the age-adjusted female breast cancer incidence rate was not significantly different between white women (121.3 cases per 100,000 females; 95% confidence interval: 118.8 to 123.9) and African American women (128.1 cases per 100,000 females; 95% confidence interval: 116.9 to 140.3) during the period 2008-2012 (Figure 5-2). The age-adjusted female breast cancer mortality rate was significantly higher for African American Kansas women (28.1 deaths per 100,000 females; 95% confidence interval: 23.0 to 34.1) compared with white Kansas women (19.4 deaths per 100,000 females; 95% confidence interval: 18.4 to 20.4) during the period 2010-2014.

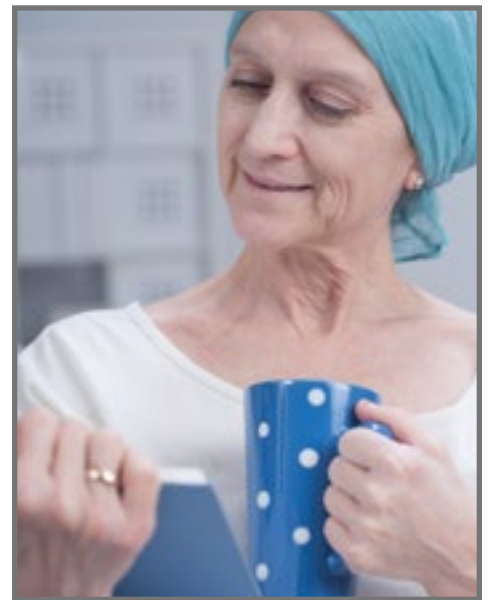
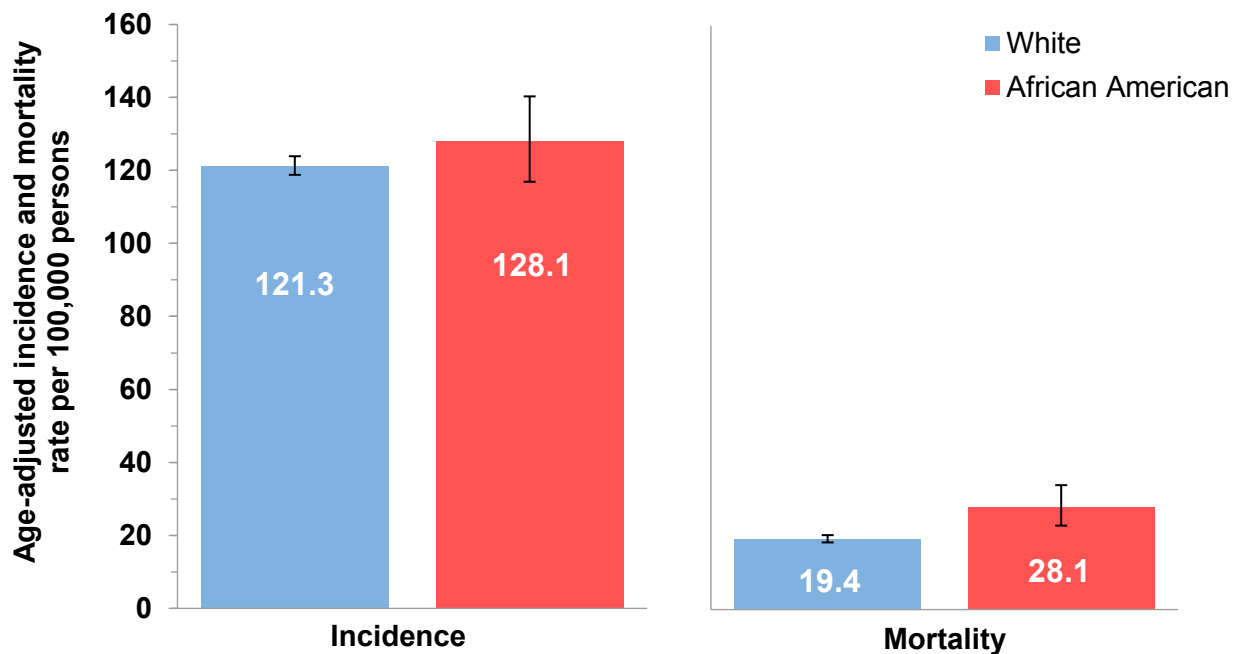


Figure 5-2. Age-adjusted female breast cancer incidence (2008-2012) and mortality (2010-2014) rates among race groups, Kansas 2008-2014.

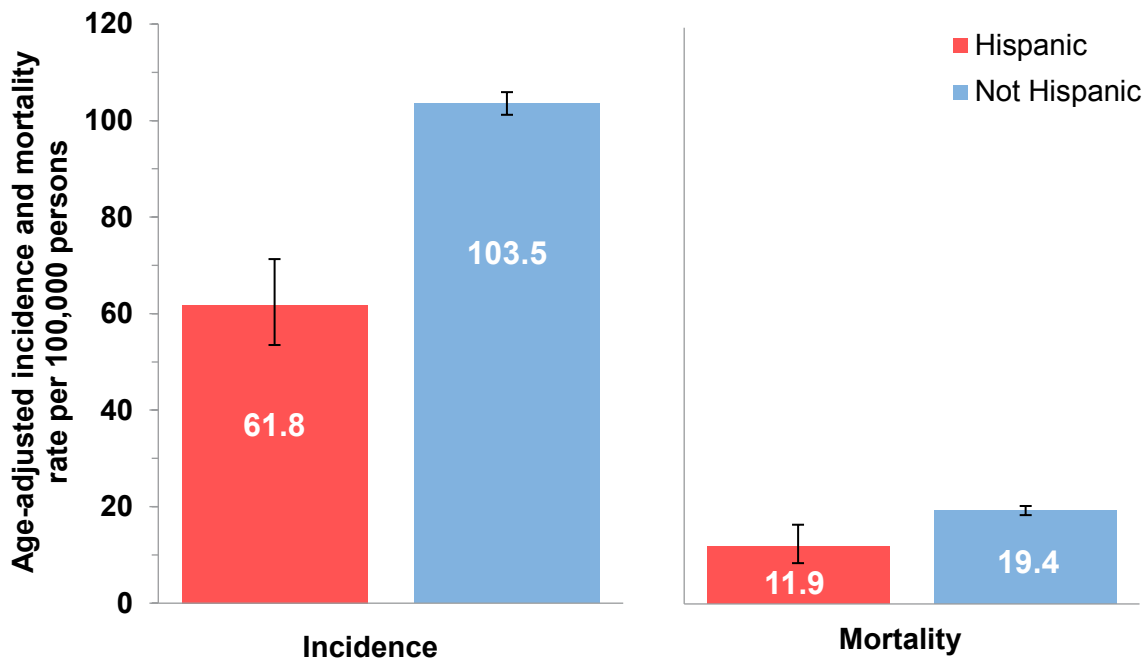


Source: 2008-2012 Kansas Cancer Registry. 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the U.S. 2000 standard population using the direct method. See Technical Appendix for details on how rates were calculated. Vertical bars indicate 95% confidence intervals. Female breast cancer incidence was defined as ICD-O-3 codes C500-C509 (excluding histology codes 9590-9989) with a behavior code indicating invasive malignancy. Female breast cancer mortality was defined as ICD-10 code C50.

Female Breast Cancer Incidence and Mortality among Ethnic Groups

In Kansas, the age-adjusted female breast cancer incidence rate was significantly lower for Hispanic women (61.8 cases per 100,000 females; 95% confidence interval: 53.5 to 71.3) than for non-Hispanic women (103.5 cases per 100,000 females; 95% confidence interval: 101.2 to 105.9) during the period 2008-2012 (Figure 5-3). Similarly, age-adjusted female breast cancer mortality rates were significantly lower for Hispanic Kansas women (11.9 deaths per 100,000 females; 95% confidence interval: 8.5 to 16.5) than for non-Hispanic Kansas women (19.4 deaths per 100,000 females; 95% confidence interval: 18.5 to 20.4) during the period 2010-2014.

Figure 5-3. Age-adjusted female breast cancer incidence (2008-2012) and mortality (2010-2014) among ethnic groups, Kansas 2008-2014.



Source: 2008-2012 Kansas Cancer Registry. 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the U.S. 2000 standard population using the direct method. See Technical Appendix for details on how rates were calculated. Vertical bars indicate 95% confidence intervals. Female breast cancer incidence was defined as ICD-O-3 codes C500-C509 (excluding histology codes 9590-9989) with a behavior code indicating invasive malignancy. Female breast cancer mortality was defined as ICD-10 code C50. Hispanics were defined as persons of Mexican, Puerto Rican, Cuban, South or Central American, Other Spanish, Spanish not otherwise specified, or Dominican Republic ethnicity. Persons with Spanish surname only or unknown ethnicity were excluded.

Female Breast Cancer Late Stage Diagnosis

Among race groups in Kansas, the age-adjusted late stage female breast cancer incidence rate dropped significantly among White women from 2003-2007 (46.3 cases per 100,000 persons; 95% CI: 44.7 to 47.9) to 2008-2012 (41.7 cases per 100,000 persons; 95% CI: 40.2 to 43.2). However, the late stage age-adjusted female breast cancer incidence rate did not differ significantly for African American women between 2003-2007 and 2008-2012 (Table 5-1).

Among ethnicity groups in Kansas, the age-adjusted late stage female breast cancer incidence rate dropped significantly among Non-Hispanic women from 2003-2007 (42.1 cases per 100,000 persons; 95% CI: 40.5 to 43.6) to 2008-2012 (36.5 cases per 100,000 persons; 95% CI: 35.1 to 38.0). In comparison, the late stage age-adjusted female breast cancer incidence rate did not differ significantly for Hispanic women during the same time period (Table 5-1).

Among population density groups in Kansas, the age-adjusted late stage female breast cancer incidence rate dropped significantly among Kansans who lived in urban counties from 2003-2007 (47.9 cases per 100,000 persons; 95% CI: 46.0 to 49.9) to 2008-2012 (43.0 cases per 100,000 persons; 95% CI: 41.3 to 44.9). However, the late stage age-adjusted female breast cancer incidence rate did not differ significantly among Kansans who lived in rural counties during the same time period (Table 5-1).

Table 5-1. Age-adjusted late stage female breast cancer incidence rates by years and selected characteristics, Kansas, 2003-2012.

Characteristics	2008-2012			2003-2007		
	Age-adjusted Rate	95% Confidence Interval		Age-adjusted Rate	95% Confidence Interval	
Race						
White	41.7	40.2	43.2	46.3	44.7	47.9
African American	56.2	49.0	64.4	57.8	50.0	66.5
Ethnicity						
Hispanic	22.6	17.9	28.4	25.1	19.4	32.3
Non-Hispanic	36.5	35.1	38.0	42.1	40.5	43.6
Population Density						
Rural	40.9	38.4	43.6	43.3	40.7	46.1
Urban	43.0	41.3	44.9	47.9	46.0	49.9

* a. Late stage was defined as the combination of regional and distant stage of diagnosis.

b. Due to insufficient count, data for Asian/Pacific Islander and American Indian/Alaska Native were not displayed in the table.

Source: 2003-2012 Kansas Cancer Registry. Female breast cancer incidence was defined as ICD-O-3 codes C500-C509 (excluding histology codes 9590-9989) with a behavior code indicating invasive malignancy.