

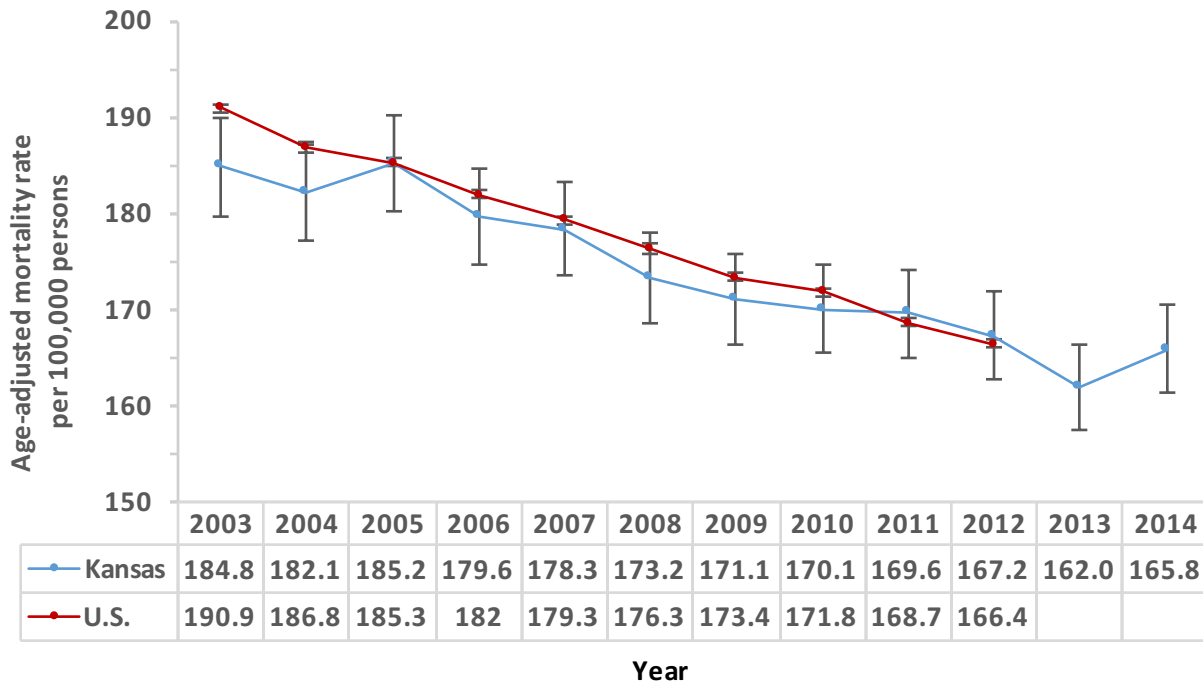
CHAPTER 2: CANCER MORTALITY

Cancer Mortality

More than 5,300 Kansans, on average, die of cancer each year. In Kansas, age-adjusted cancer mortality rates decreased significantly during the period 2003-2014 from 184.8 deaths per 100,000 persons (95% confidence interval: 179.6 to 189.6) in 2003 to 165.8 deaths per 100,000 persons (95% confidence interval: 161.4 to 170.4) in 2014 (Figure 2-1). Age-adjusted cancer mortality rates also decreased significantly in the U.S. during 2003-2012 from 190.9 deaths per 100,000 persons in 2003 (95% confidence interval: 190.4 to 191.4) to 166.4 deaths per 100,000 persons in 2012 (95% confidence interval: 166.0 to 166.8).



Figure 2-1. Age-adjusted cancer mortality rates, Kansas and the U.S. 2003-2014.

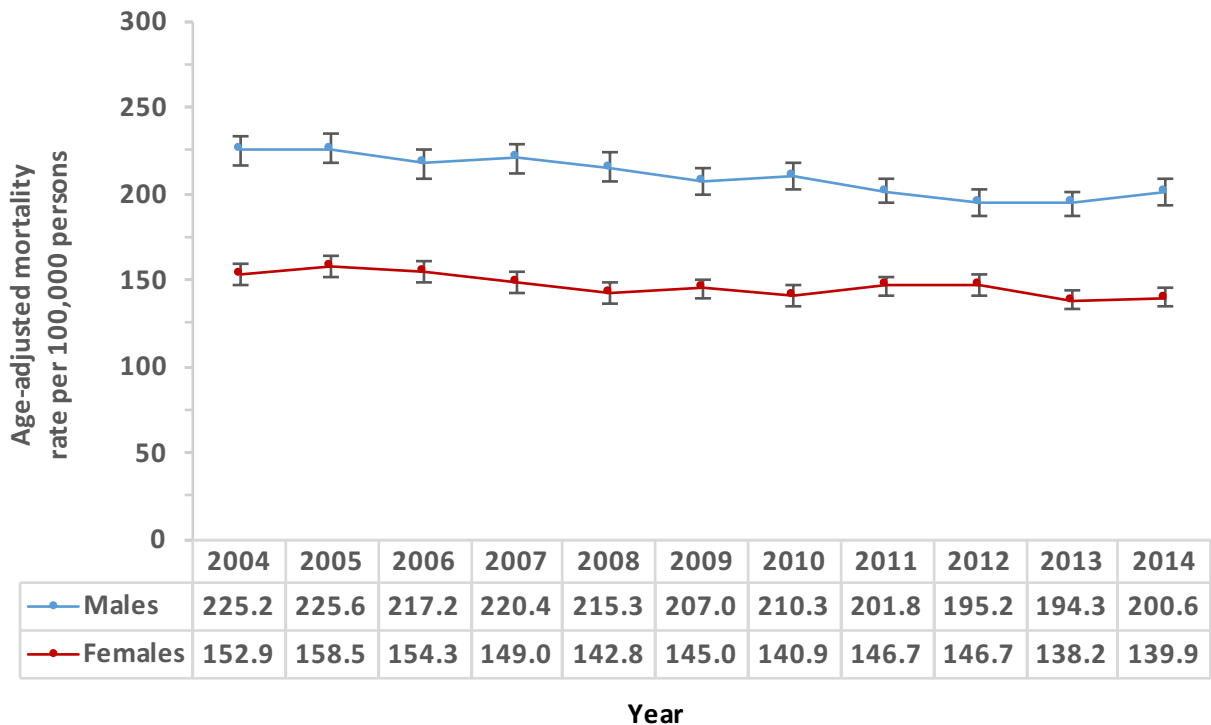


Source: 2003-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. U.S. Cancer Statistics: 1999- 2012 Mortality, WONDER Online Database, US DHHS, CDC; 2015. <http://wonder.cdc.gov>. U.S. cancer mortality data for 2013 and 2014 were not available at the time the document 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. Cancer mortality was defined as ICD-10 codes C00-C97.

Cancer Mortality among Gender Groups

In Kansas, age-adjusted cancer mortality rates were significantly higher for males as compared to females during the period 2004-2014 (Figure 2-2). Age-adjusted cancer mortality rates were approximately 40 percent to 50 percent higher for men than for women throughout this period.

Figure 2-2. Age-adjusted cancer mortality rates among gender groups, Kansas 2004-2014.

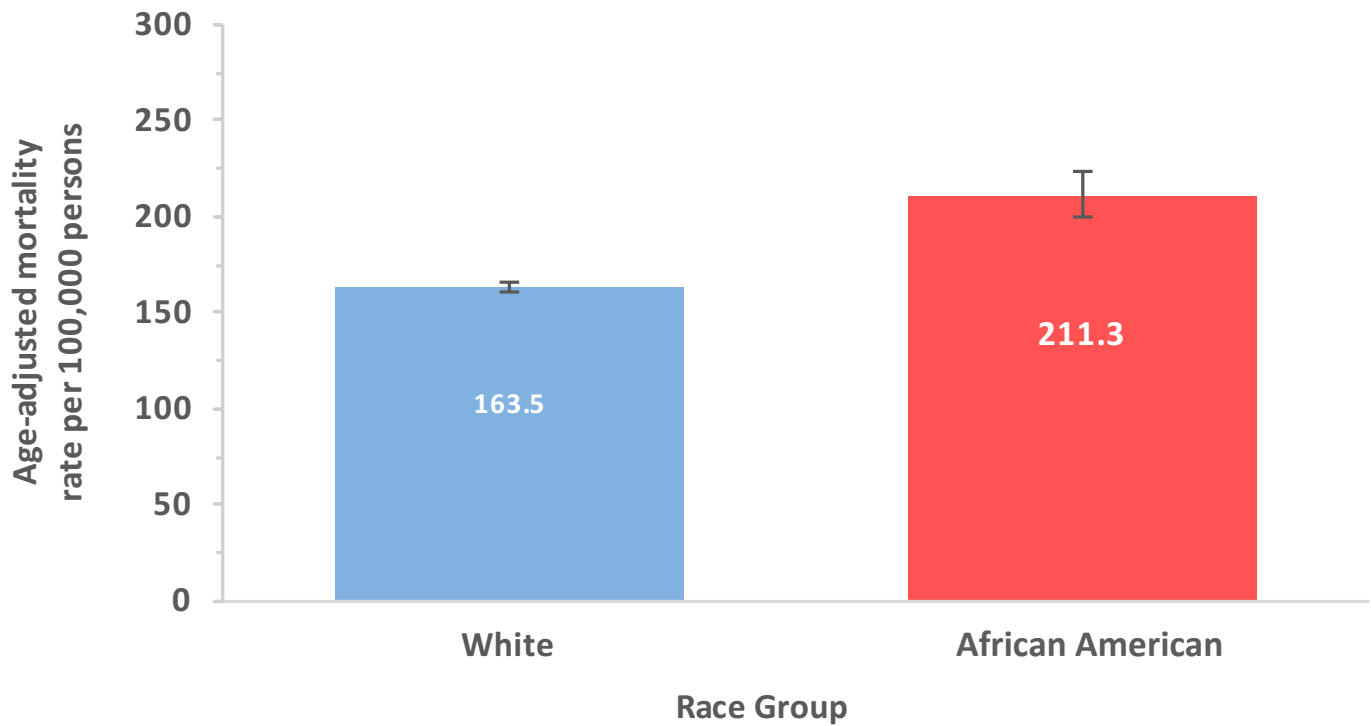


Source: 2004-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the U.S. 2000 standard population using the direct method. See Technical Appendix for details on how rates were calculated. Vertical bars indicate 95% confidence intervals. Cancer mortality was defined as ICD-10 codes C00-C97.

Cancer Mortality among Race Groups

Age-adjusted cancer mortality rates were significantly higher for African American Kansans (211.3 deaths per 100,000 persons; 95% confidence interval: 200.0 to 223.0) than for white Kansans (163.5 deaths per 100,000 persons; 95% confidence interval: 161.4 to 165.6) during the time period 2010-2014 (Figure 2-3).

Figure 2-3. Age-adjusted cancer mortality rates among race groups, Kansas 2010-2014.

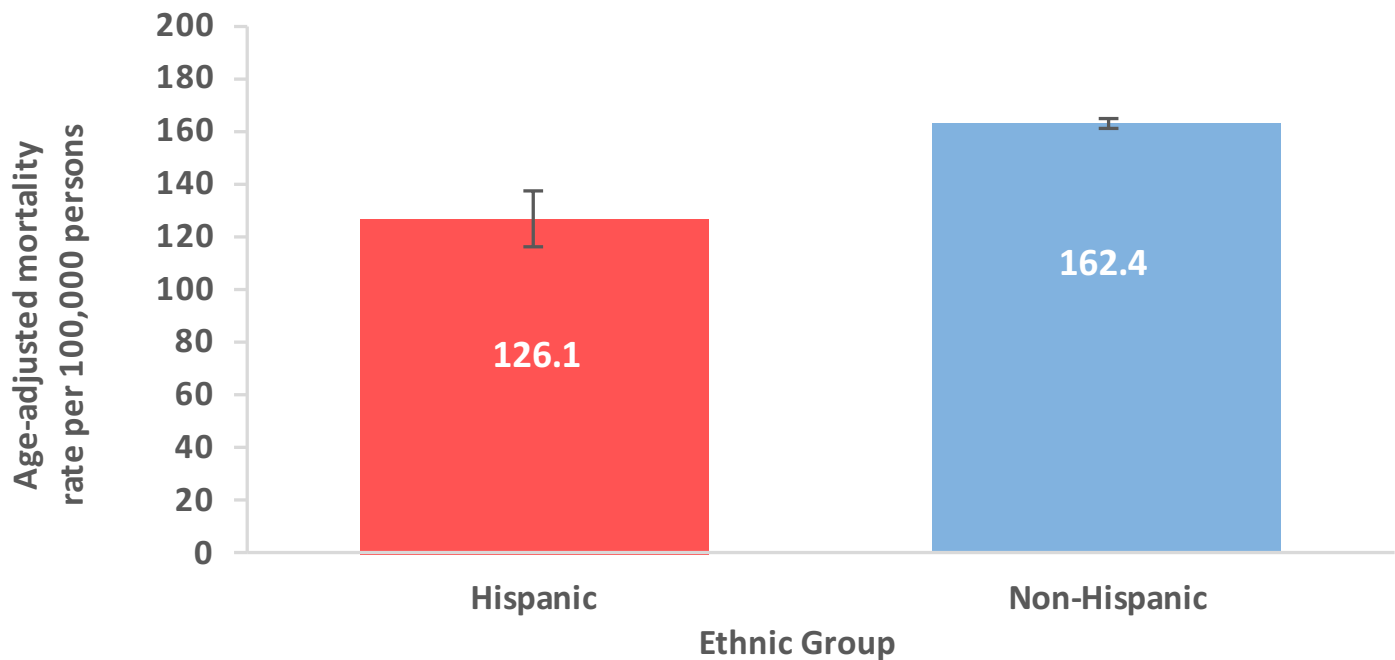


Source: 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the U.S. 2000 standard population using the direct method. See Technical Appendix for details on how rates were calculated. Vertical bars indicate 95% confidence intervals. Cancer mortality was defined as ICD-10 codes C00-C97.

Cancer Mortality among Ethnic Groups

Age-adjusted cancer mortality rates were significantly lower for Hispanic Kansans (126.1 deaths per 100,000 persons; 95% confidence interval: 116.4 to 136.5) than for non-Hispanic Kansans (162.4 deaths per 100,000 persons; 95% confidence interval: 160.4 to 164.4) during the time period 2010-2014 (Figure 2-4).

Figure 2-4. Age-adjusted cancer mortality rates among ethnic groups, Kansas 2010-2014.

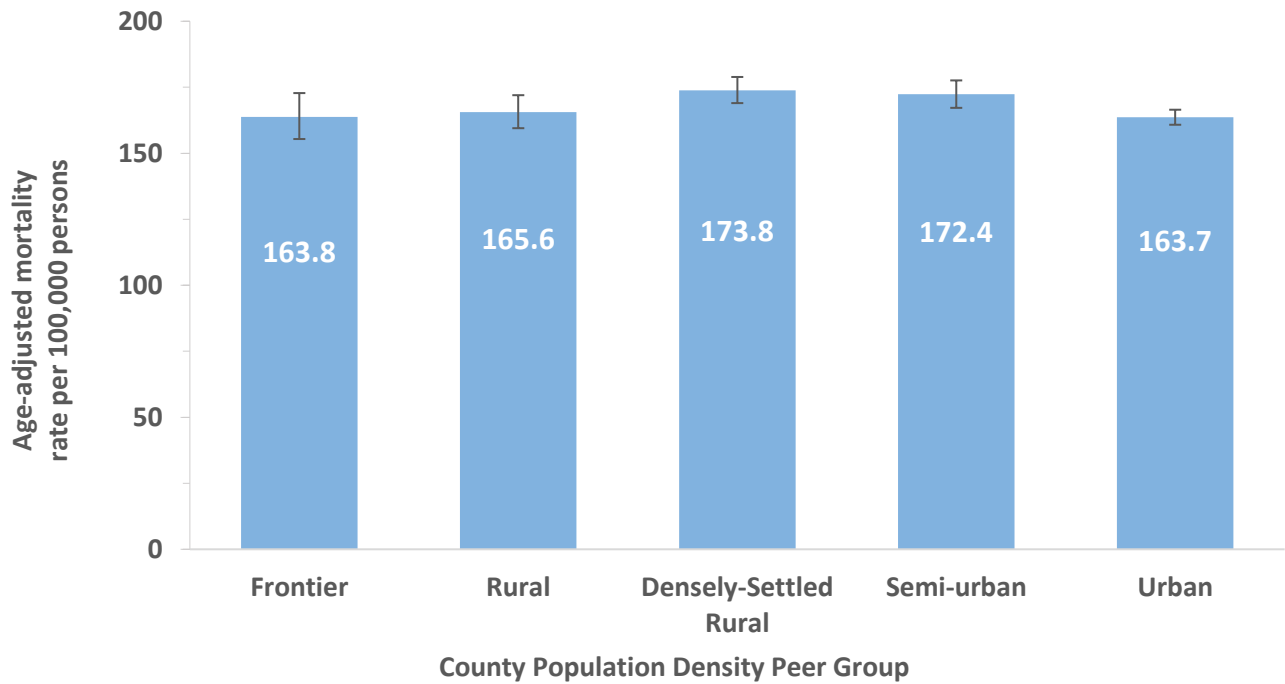


Source: 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the U.S. 2000 standard population using the direct method. See Technical Appendix for details on how rates were calculated. Vertical bars indicate 95% confidence intervals. Cancer mortality was defined as ICD-10 codes C00-C97. 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.

Cancer Mortality among County Population Density Groups

In Kansas, there were slight differences in age-adjusted cancer mortality rates among county population density groups during the time period 2010-2014 (Figure 2-5). The age-adjusted cancer mortality rate in urban counties (163.7 deaths per 100,000 persons; 95% confidence interval: 160.8 to 166.5) was significantly lower than the rate in densely-settled rural counties (173.8 deaths per 100,000 persons; 95% confidence interval: 169.0 to 178.9).

Figure 2-5. Age-adjusted cancer mortality rates among county population density peer groups, Kansas 2010-2014.

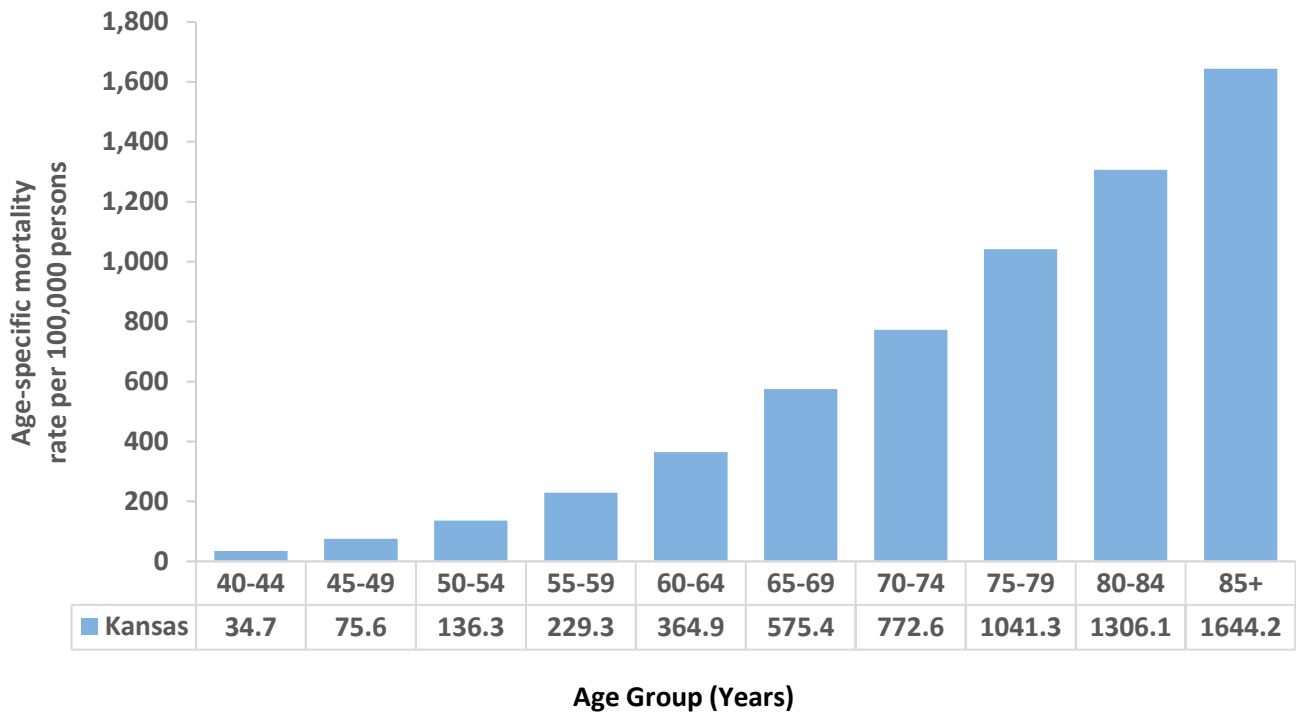


Source: 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. Rates were age-adjusted to the U.S. 2000 standard population using the direct method. See Technical Appendix for details on how rates were calculated. County population density peer groups are based on the population for each county in the 2000 population and are defined as follows: Frontier (fewer than 6 persons per square mile), Rural (6 to 19.9 persons per square mile), Densely-Settled Rural (20 to 39.9 persons per square mile), Semi-Urban (40 to 149.9 persons per square mile), and Urban (150 or more persons per square mile). Vertical bars indicate 95% confidence intervals. Cancer mortality was defined as ICD-10 codes C00-C97.

Cancer Mortality among Age Groups

In Kansas, cancer mortality increased dramatically with age as shown by the data for the period of 2010-2014 (Figure 2-6). Cancer mortality rates were highest among Kansans aged 85 years and older (1644.2 cases per 100,000 persons; 95% confidence interval: 1599.3 to 1690.7).

Figure 2-6. Age-specific cancer mortality rates for Kansas residents 40 years and older, Kansas 2010-2014.

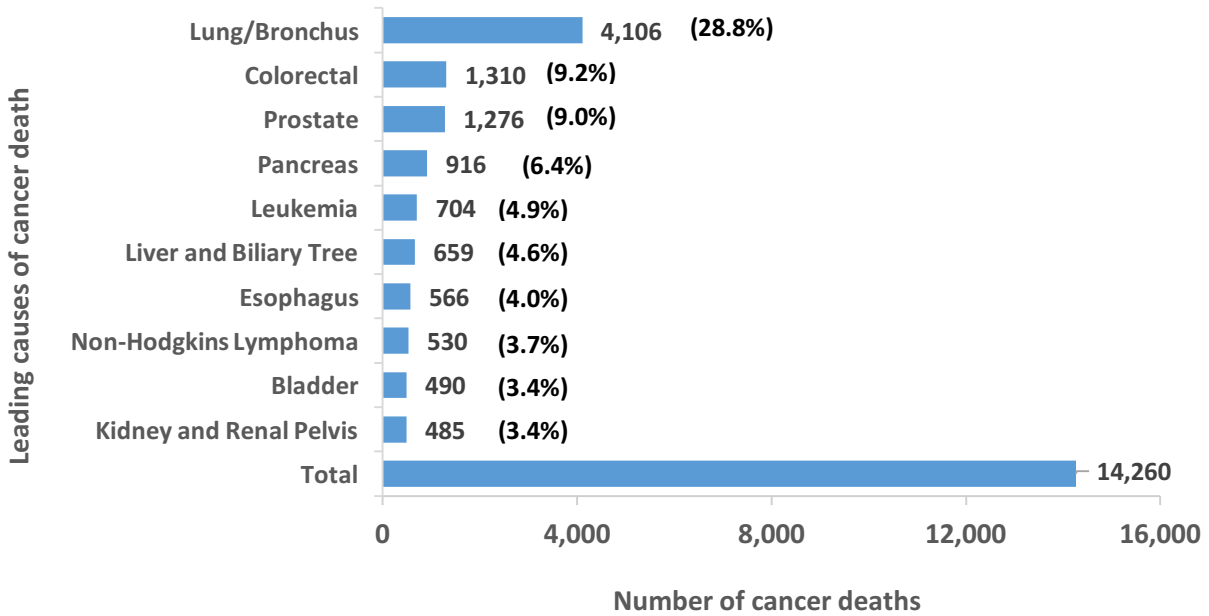


Source: 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. See Technical Appendix for details on how rates were calculated. Cancer mortality was defined as ICD-10 codes C00-C97.

Leading Causes of Cancer-Related Death by Gender

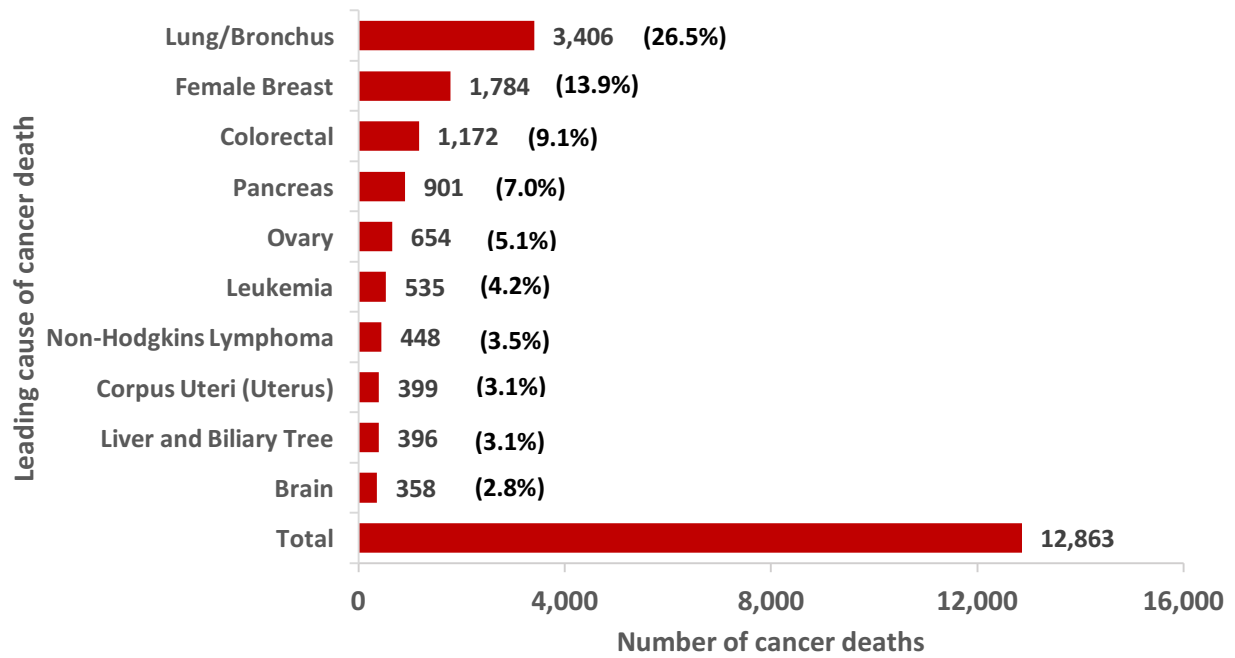
The most common causes of cancer-related death among Kansas males during the time period 2010- 2014 were lung (28.8%), colorectal (9.2%), and prostate (9.0%) cancer (Figure 2-7). Among Kansas females, the leading causes of cancer-related death during this time period were lung (26.5%), breast (13.9%), and colorectal (9.1%) cancer (Figure 2-8).

Figure 2-7. Top 10 causes of cancer death among males, Kansas 2010-2014



Source: 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. See Technical Appendix for details on how leading causes of cancer death were defined.

Figure 2-8. Top 10 causes of cancer death among females, Kansas 2010-2014



Source: 2010-2014 Kansas Vital Statistics, Bureau of Epidemiology and Public Health Informatics, KDHE. See Technical Appendix for details on how leading causes of cancer death were defined.