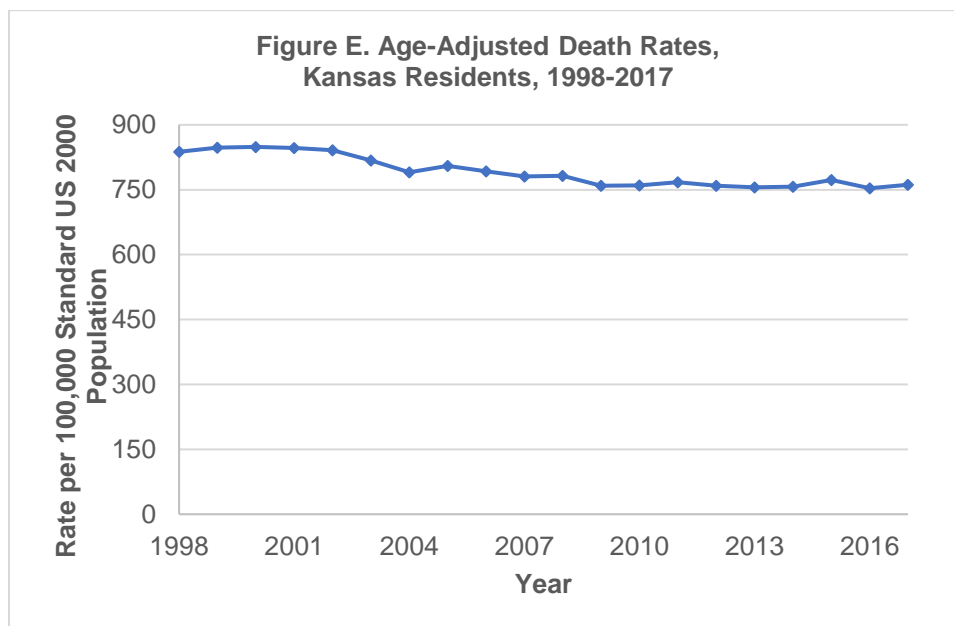


## General Mortality

There were 26,725 Kansas resident deaths recorded in 2017, an increase of 2.3 percent from the 26,129 deaths recorded in 2016. The Kansas crude death rate in 2017 was 917.4 deaths per 100,000 population, which was 5.9 percent higher than the estimated U.S. crude rate of 866.2 deaths per 100,000 population (Tables E1, E3, Figure E1).

The Kansas age-adjusted death rate (see Technical Notes for a discussion of age-adjusted rates) for 2017 was 761.3 deaths per 100,000 standard U.S. 2000 population, up 1.0 percent from 753.5 in 2016. The age-adjusted death rate for males (899.4) was 39.4 percent higher than that for females (645.0) (Table E3).



The Kansas age-adjusted death rate in 2017 increased from a twenty-year low (for 1998-2017) reached in 2016, but was still 10.3 percent below its peak for the period (849.0, in 2000) (Figure E) (Figure E2, Table E3).

### **Age at Death**

The average age at death of Kansas residents in 2017 was 74.2 years, unchanged from 2016 (Table E4).

Average age at death varied by sex and population group. In 2017, males died 6.4 years younger than females (71.1 versus 77.5 years). The average age at death for the White non-Hispanic population was 75.7 years, 11.0 years higher than that of the Black non-Hispanic population (64.7 years), and 15.7 years higher than that of the Hispanic population (60.0 years) (Table E4).

Over 60 percent (60.4) of White non-Hispanic Kansas residents who died in 2017 were 75 years of age or older, while only 34.6 percent of deceased Black non-Hispanic residents and 36.9 percent of deceased Hispanic residents had reached the age of 75 (Table E4).

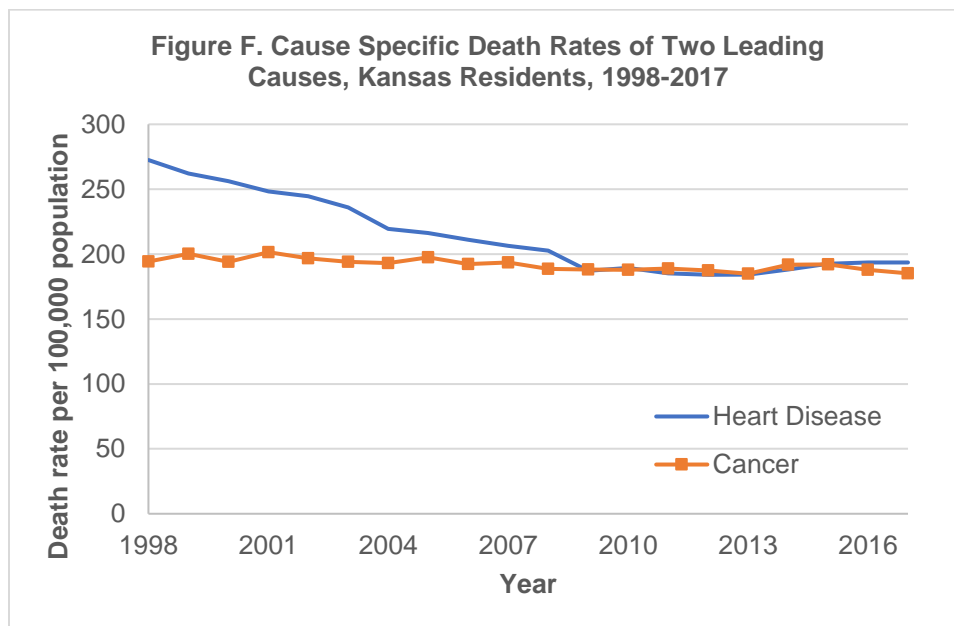
### **Leading Causes of Death**

The 10 leading causes of death in Kansas remained unchanged from 2016 to 2017, though their order changed in some cases. Suicide and nephritis, nephrotic syndrome and nephrosis changed places as 8<sup>th</sup> and 10<sup>th</sup> leading causes (suicide ranked 8<sup>th</sup> in 2017) but all other rankings in the ten leading causes remained unchanged.

The ten leading causes of death accounted for 71.5 percent of all Kansas resident deaths in 2017. *Diabetes mellitus* was the only leading cause for which the change in age-adjusted rate from 2016 was statistically significant: it rose from 21.1 per 100,000 population in 2016 to 24.9 in 2017.

Kansas recorded 544 resident suicide deaths in 2017 compared to 512 in 2016 and 477 in 2015. The suicide age-adjusted death rate increased from 17.8 deaths per 100,000 population in 2016 to 18.8 deaths per 100,000 population in 2017, but the change was not statistically significant (Table E8).

Historical cause-specific (crude) death rates over the past twenty years illustrate the convergence of heart disease and malignant neoplasms (cancer) mortality (Figure F). Mortality due to both diseases has declined, but heart disease deaths have declined much more rapidly than cancer deaths. In 2017, the heart disease death rate was 193.5 deaths per 100,000 population, while the cancer death rate was 185.1 per 100,000 population (Table E8, Figure E3).



### **Age at Death for Leading Causes**

For any given cause of death, there can be wide variations in average age of death by sex of decedent. Males and females who died from malignant neoplasms did so at about the same ages (72.0 and 71.8 years, respectively), but males who died from heart disease did so at younger ages than did females (75.4 and 82.4 years, respectively). Males and females dying from chronic lower respiratory disease did so at about the same ages (76.6 and 77.2 years, respectively), but males dying of cerebrovascular disease did so at younger ages than did

females (77.8 and 82.6 years, respectively). Males who died from suicide were older than females who died of that cause (44.5 and 41.3 years, respectively), but males died from unintentional injuries at much younger ages than females (55.4 and 67.1 years, respectively). Alzheimer's disease killed at the highest average ages for males and females (85.2 and 87.5 years respectively) (Table E7).

The leading causes of death also varied by age-group. In 2017, the leading cause of death for infants (up to one year of age) was congenital anomalies. For age-groups 1-4, 5-14, 15-24, and 25-44 the leading cause of death was unintentional injuries. For age-groups 45-64 and 65-84 the leading cause of death was cancer, and for ages 85 and above the leading cause of death was heart disease (Figure E4).

For the 15-24 age-group, unintentional injuries were followed by suicide and homicide as leading causes of death. These three causes accounted for 82.1 percent of deaths in this age-group (Table E6).

### ***Infectious Disease***

Five hundred forty (540) Kansas residents died of pneumonia or influenza in 2017, for an age-adjusted death rate of 14.8 per 100,000 population, the second lowest rate in the 1999-2017 period (Table E9). Since 1999, the yearly count of resident pneumonia and influenza deaths has varied from a high of 740 to a low of 518. The age-adjusted pneumonia and influenza death rate in the period has varied from a high of 24.1 to a low of 14.3 deaths per 100,000 population. These numbers are not strictly comparable to the influenza and pneumonia statistics posted on the KDHE website, as they are based on a calendar year, while the latter are based on a September-May flu season. Furthermore, the rates reported on the KDHE website are crude rates, while the rates reported here are age-adjusted rates.

Twenty-two (22) Kansas residents died of HIV/AIDS in 2017, for an age-adjusted death rate of 0.7 per 100,000 population (Table E6). This surpasses the Healthy People 2020 target (HIV-12) of reducing the rate to 3.3 HIV/AIDS deaths per 100,000 population.

### ***Cancer***

Cancer was responsible for 5,391 Kansas resident deaths in 2017, for an age-adjusted death rate of 154.2 per 100,000 population (Table E8). This surpasses the Healthy People 2020 target for cancer deaths (C-1) of 160.6 per 100,000 population.

### ***Ischemic Heart Disease***

Ischemic heart disease was responsible for 3,299 Kansas resident deaths in 2017, for an age-adjusted death rate of 91.4 per 100,000 population (Table E10). This surpasses the Healthy People 2020 target for reducing coronary heart disease deaths (HDS-2, which has the same definition as used here for ischemic heart disease), to 100.8 per 100,000 population.

### ***Cerebrovascular Disease***

Kansas age-adjusted death rates from cerebrovascular disease decreased to 36.9 per 100,000 population in 2017, down 3.9 percent from a rate of 38.4 per 100,000 population in 2015. Since 1998, death rates due to cerebrovascular disease have declined by 34.2 percent (Table E8, Figure E3).

Healthy People 2020 uses the word "stroke" to include all the ICD-10 codes included in this report in the cerebrovascular disease category. The Healthy People 2020 target for stroke

(HDS-3) is to reduce deaths to 33.8 deaths per 100,000 population. To meet this target, Kansas resident cerebrovascular disease deaths would have to decline from 1,327 in 2017 to about 1,207 by 2020 (Table E12). (The exact number would depend on decedent age distributions and on future changes to the Kansas population.)

### ***External Causes***

In 2017, the age-adjusted unintentional injury death rate was 49.3 deaths per 100,000 population, an increase of 6.3 percent from the rate of 46.4 in 2016. The 2017 rate was the highest unintentional injury death rate in the past twenty years (Table E8, Figure E3).

Motor-vehicle injuries resulted in 447 deaths in 2017 (427 traffic and 20 non-traffic), accounting for 28.4 percent of 1,573 unintentional injury deaths. This was an increase of 4.4 percent from 428 motor-vehicle injury deaths in 2016 (Table E13).

The motor-vehicle traffic injury death rate in 2017 was 15.1 deaths per 100,000 population (age-adjusted). This falls short of the Healthy People 2020 target (IVP-13.1) of 12.4 deaths per 100,000 population. Meeting the CDC Winnable Battles target of 9.5 deaths per 100,000 population by 2015 would have required a reduction in motor-vehicle traffic injury deaths to about 277.

Unintentional falls were responsible for 469 Kansas resident deaths in 2017 for an age-adjusted death rate of 12.6 per 100,000 population. The Healthy People 2020 target for fall related deaths (IVP-23.1) is 7.0 per 100,000 population. Meeting this target would require a reduction to about 270 unintentional fall deaths by 2020. The exact number would depend on decedent age distributions and on future changes to the Kansas population.

### ***Suicide***

In 2017, 544 Kansas residents died due to suicide, up 6.3 percent from 512 suicide deaths in 2016. Almost four-fifths (78.3%) of suicide victims were male. The three age groups with the largest number of suicides were 25-34 (101 deaths), 35-44 (91 deaths), and 45-54 (91 deaths). The three most common methods of suicide were firearms (309 deaths), suffocation (150 deaths), and poisoning (64 deaths) (Tables E8, E14, E22).

### ***YPLL 75 Statistics***

Mortality in Kansas was responsible for 196,255 years of potential life lost before age 75 in 2017 (see Technical Notes – Years of Potential Life Lost). Cancer, unintentional injury, and heart disease accounted for the most years of potential life lost (37,642, 30,129, and 25,245 years lost, respectively). Men lost more than twice the potential years of life to unintentional injuries than did women (20,568 years and 9,561 years, respectively) (Table E20).

### ***Tobacco and Mortality***

Tobacco use contributed to 4,715 deaths in Kansas in 2017 (25.3 percent of the deaths where the tobacco contribution was known and reported on the death certificate). Tobacco use was a contributing factor in 31.5 percent of male deaths, and in 19.3 percent of female deaths. The causes of death showing the largest tobacco contribution were cancer of the trachea, bronchus and lung (86.1%), chronic lower respiratory disease (84.3%), cancer of the urinary tract (33.3%), and ischemic heart disease (33.2%). (Table E21) Physicians and coroners can state on the death certificate whether tobacco contributed to the death. Because information may not be available at the time the death certificate is completed, tobacco's contribution may be subject to some under-reporting.