

SUMMIT COUNTY PUBLIC HEALTH

Population Health Vital Statistics Brief: VOLUME 1: DEATH AND LIFE EXPECTANCY



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Introduction

This publication is the first of several brief reports to be released by the Summit County Public Health Population Health Division's *Vital Statistics Brief* report series. These reports will provide the citizens of Summit County with regular updates on death and life expectancy, maternal and infant health and birth outcomes, and infant mortality. Additional volumes in the series will also be released from time to time, updating the community on other topics of interest.

For those interested in obtaining detailed death data and related statistics, please visit our website, <https://www.scph.org/assessments-reports>. There, visitors can access our interactive *Death Data Dashboard*, which allows users to design customized graphics and tables for their own use.

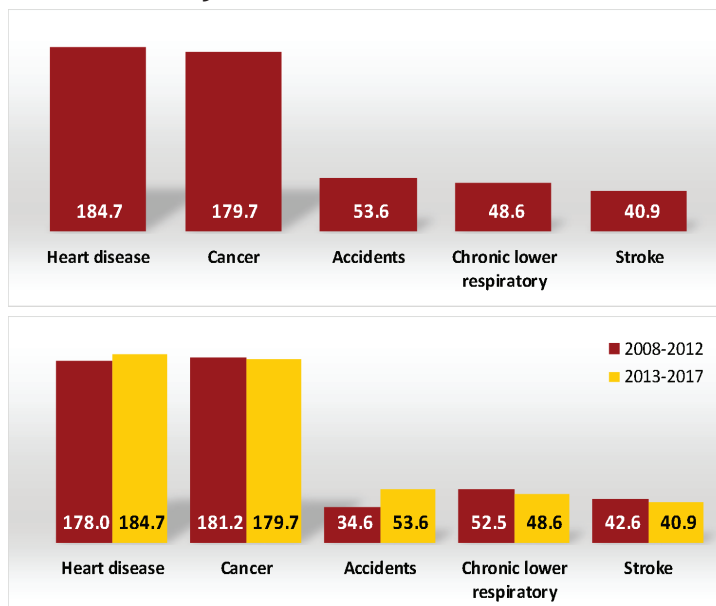
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Leading Causes of Death in Summit County

The top five causes of death in Summit County are (in order) heart disease, cancer, chronic lower respiratory disease, stroke, and accidental deaths.

While heart disease is currently the most frequent cause of death, deaths by cancer are not far behind. The age-adjusted heart disease death rate rose from 178.0 per 100,000 people from 2008-2012 to 184.7 from 2013-2017. Cancer deaths, meanwhile, improved slightly during those same years, falling from 181.2 per 100,000 people to 179.7 per 100,000 people.



Figures 1 and 2: Age-Adjusted Death Rates for Top 5 Causes of Death in Summit County, combined 2008-2017 and 2008-2012 to 2013-2017. Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

10 Leading Causes of Death by Age Group, Summit County, 2000-2017

Rank	Under 5 years	5 - 14 years	15 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years	55 - 64 years	65 - 74 years	75 - 84 years	85 yrs & over
1	Condition originating in the perinatal period	Unintentional Injury	Unintentional Injury	Unintentional Injury	Unintentional Injury	Cancer	Cancer	Cancer	Heart disease	Heart disease
2	Congenital Anomalies	Homicide	Suicide	Suicide	Heart disease	Heart disease	Heart disease	Heart disease	Cancer	Cancer
3	Unintentional Injury	Cancer	Homicide	Homicide	Cancer	Unintentional Injury	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Cerebrovascular diseases
4	Homicide	Heart disease	Cancer	Cancer	Suicide	Suicide	Unintentional Injury	Cerebrovascular diseases	Cerebrovascular diseases	Alzheimer's Disease
5	Influenza or Pneumonia	Suicide	Heart disease	Heart disease	Homicide	Chronic liver disease / cirrhosis	Diabetes	Diabetes	Alzheimer's Disease	Chronic Lower Respiratory Disease
6	Heart disease	Condition originating in the perinatal period	Congenital Anomalies	Diabetes	Chronic liver disease / cirrhosis	Diabetes	Cerebrovascular diseases	Kidney Diseases	Diabetes	Influenza or Pneumonia
7	Kidney diseases	Congenital Anomalies	In situ neoplasms	Cerebrovascular diseases	Diabetes	Cerebrovascular diseases	Chronic liver disease / cirrhosis	Unintentional Injury	Influenza or Pneumonia	Diabetes
8	Septicemia	Cerebrovascular diseases	Pregnancy complications	HIV	Cerebrovascular diseases	Chronic Lower Respiratory Disease	Kidney Diseases	Influenza or Pneumonia	Kidney Diseases	Unintentional Injury
9	Cerebrovascular diseases	Septicemia	Chronic Lower Respiratory Disease	Congenital Anomalies	HIV	Septicemia	Suicide	Septicemia	Unintentional Injury	Kidney Diseases
10	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Cerebrovascular diseases	Influenza or Pneumonia	Influenza or Pneumonia	Influenza or Pneumonia	Influenza or Pneumonia	Chronic liver disease / cirrhosis	Septicemia	Lung Inflammation

Figure 3: Ten Leading Causes of Death Ranked For 10 Different Age Groups Source: ODH Death Certificate Data, Centers for Disease Control and Prevention

The table above is based on a format originally designed by the CDC. It shows the top 10 leading causes of death for each of 10 age groups for people in Summit County. Some of the more common causes of death are color-coded so that readers can follow the progression of that disease throughout the age spectrum. For example, unintentional injuries are the third leading cause of death for children and infants under five years of age. However, unintentional injuries rise to become the most common cause of death for those age five to 44 years of age. In age groups older than 44, unintentional injuries begin dropping to lower relative rankings as diseases that frequently occur later in life such as cancer and heart disease begin to impact the health of the population.

Summit County's age-adjusted death rates for chronic lower respiratory disease and stroke were both slightly lower from 2012-2016 than from 2007-2011.

The accidents category is split into two sub-categories, those accidental deaths caused by drug poisonings, and those from other causes. Accidental deaths from other causes such as motor vehicle accidents or falls have stayed fairly stable, falling by about 2% from 2008 to 2017.

However, accidental deaths caused by drug poisonings have risen sharply over that same period, rising by 285%.

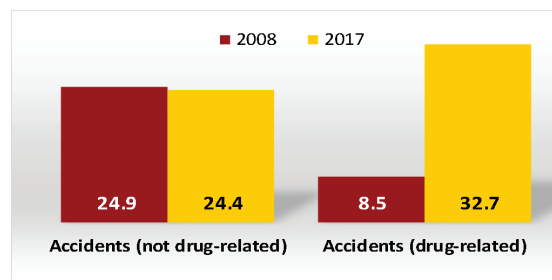


Figure 3: Age-Adjusted Death Rates, Drug-Related and Non Drug-Related Source: ODH Death Certificate Data

Differences in Leading Causes of Death

While the county's two largest racial groups, whites and blacks, share the same top-five causes of death, the death rates for each racial group are different for each cause; sometimes very different. Age-adjusted death rates for blacks are higher than for whites on three of the five most common causes of death. More importantly, age-adjusted death rates for blacks are higher than for whites on the two most common causes of death, heart disease and cancer. As shown

in Figure 5 below, the rate of heart disease for African-Americans over the 2013-2017 period was 218.2 per 100,000 people, while the rate for whites was 177.7 per 100,000. For cancer, the rates were 207.6 for African-Americans and 179.0 for whites. Rates are also very different for stroke, where the death rate for whites is 39.0 per 100,000 and 62.9 per 100,000 for African-Americans. Only accidental deaths and deaths due to chronic lower respiratory disease were higher for whites than African-Americans.

Disparities in Age-Adjusted Death Rates for Top 5 Causes of Death per 100,000 by Race, Summit County 2013-2017

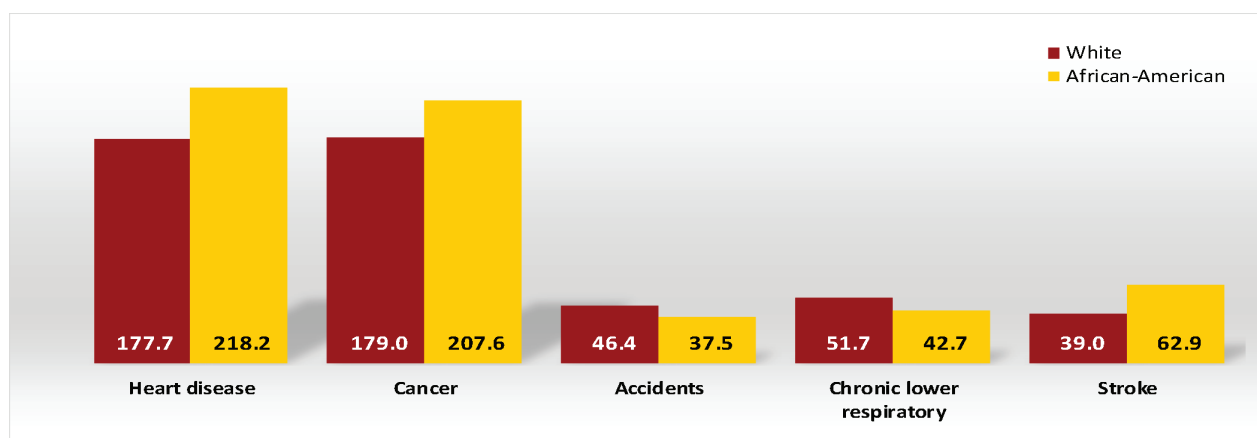


Figure 5: Age-Adjusted Death Rates for Top 5 Causes of Death, White vs. African-American Source: ODH Death Certificate Data

Emerging Issues: Homicides, Suicides, and Overdoses

This section discusses three major issues in causes of death: homicides, suicides, and overdoses.

Homicide by Firearm - As Figure 6 shows, overall homicide rates have been fairly steady over the past 15 years, fluctuating between five and seven deaths per 100,000 people. However, Figure 7 shows that homicides involving a firearm have been increasing steadily over time, rising from 2.4 per 100,000 between 2003 and 2007; to 3.8 per 100,000 between 2008 and 2012; and finally to 4.4 per 100,000 between 2013 and 2017.

Not only have homicides by firearm been rising, there are also big differences in the rates between whites and blacks. Between 2013 and 2017, the age-adjusted firearm-related homicide rate was 1.4 deaths per 100,000 for whites, and 22.2 per 100,000 for blacks; more than 8 times higher than the white rate. Nearly 40% of black deaths due to firearms were of males between the ages of 15 and 24.

Suicides - Suicide rates have been climbing for several years. The age-adjusted suicide rate for Summit County rose from 3.5 per 100,000 from 2003-2007 to 6.0 from 2008-2012 and again to 12.2 from 2013-2017. Nearly half of suicides (47%) were by firearm, while another 10% were caused by intentional drug poisonings.

Whites made up nearly all of the suicide victims (91%). The vast majority of suicides (80%) occur between the ages of 15 and 64, with nearly one-in-four (22%) occurring between the ages of 45 and 54. Men are four times more likely to commit suicide than are women.

Overdoses (unintentional drug poisonings)

- Deaths due to drug overdoses began rising sharply starting in 2013, growing from 76 in that year to a high of 310 in 2016. Deaths due to poisoning by narcotics and hallucinogens led the way, making up nearly 74% of all drug poisoning deaths since 2013 (611 total deaths); a much larger number and percentage than in any other single category. In addition, narcotic and hallucinogenic poisonings have been growing as a percentage of all drug poisoning deaths, rising from 65% of all drug poisoning deaths in 2013 to 74% of all drug poisoning deaths in 2016. Overall drug overdose deaths rose by 71% between 2002 and 2012, and by 230% between 2012 and 2016 (2017 totals are not yet complete).

Fentanyl / Carfentanil - A big part of the sharp increase in overdose deaths has been the introduction of fentanyl and carfentanil into the community. Figure 8a presents data on the involvement of these two dangerous substances in the county's accidental overdose fatalities. As

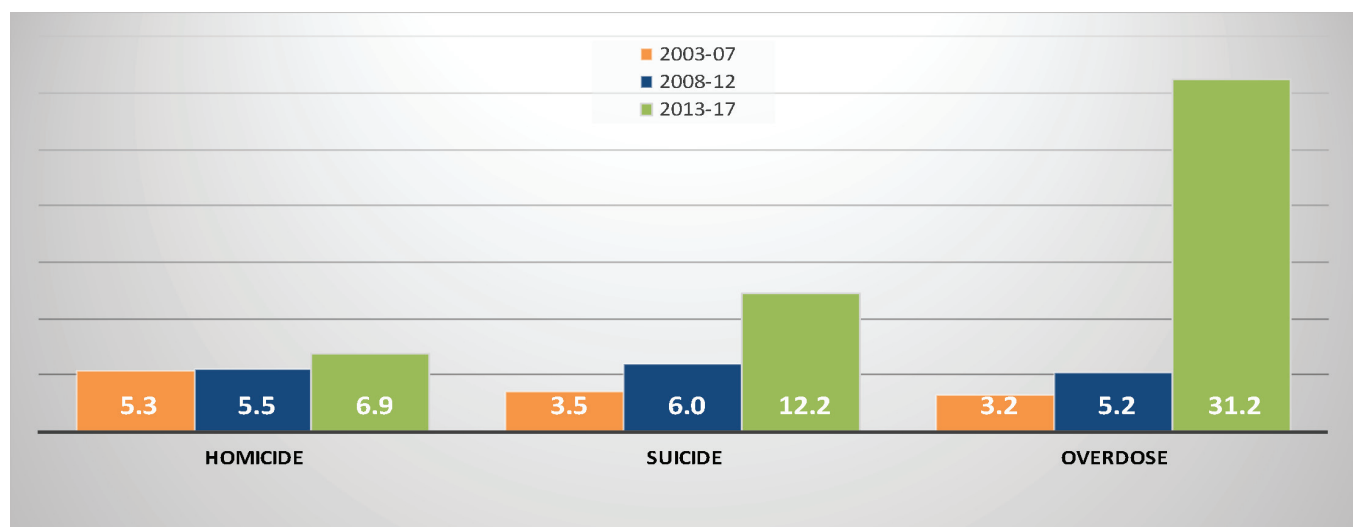


Figure 6: Age-Adjusted Homicides, Suicides, and Drug Overdose Deaths Per 100,000 Population

Source: ODH death records and SCPH calculations

Figure 8a shows, fentanyl was already established as a regular contributor to the cause of death in overdose cases by the time the opiate epidemic exploded on July 5, 2016 (112 cases in 2016). The figure also shows that the first fatalities where carfentanil was identified as a contributing factor began at the same time, with carfentanil-involved fatalities rising from zero during the first six months of 2016 to 34 in July. Before the year was over, carfentanil was found in at least 183 people and specifically cited as a contributing factor in the cause of death of at least 119 of them.

Heroin in combination with drugs other than fentanyl or carfentanil was identified as a contributing cause of death in 11 cases (3% of the total), while heroin alone was cited in 13 cases (4%).

Methamphetamine (meth) has also become a significant contributor to drug-related fatalities. Between 2016 and 2017, there were 91 deaths where meth was identified as a part of the cause of death.

Prescription drugs - Both nationwide and locally, much of the present overdose epidemic is driven by people becoming addicted to prescription painkillers before moving on to heroin and other drugs. Figure 8b shows the amount of prescription opioids dispensed in Summit County. While the number of opiate doses dispensed per capita has been dropping over the past two years, there are still enough opiate doses being dispensed to give every man, woman, and child in Summit County 12 opiate doses every three months. With so many legal opiates circulating in the community, the potential for abuse remains high.

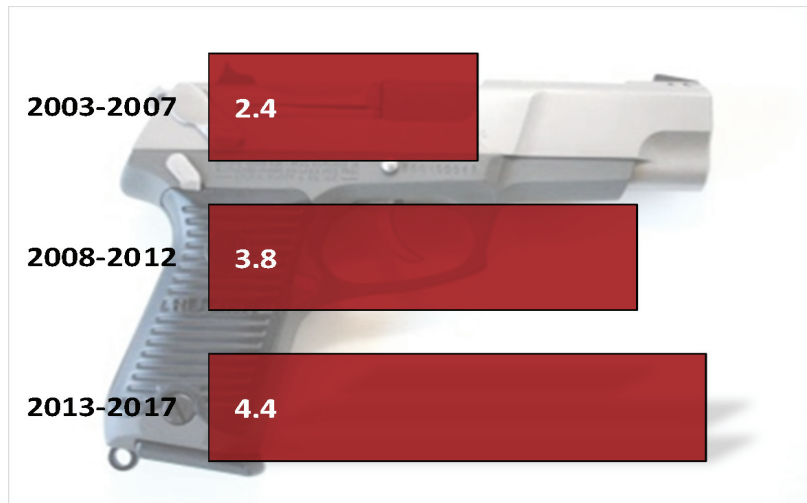


Figure 7: Homicide by Firearm Per 100,000 Population

Source: ODH death records and SCPH calculations

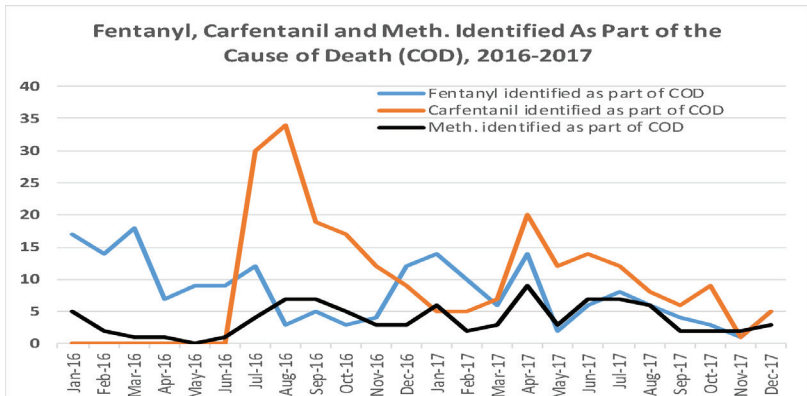


Figure 8a: The Impact of Fentanyl, Carfentanil, and Methamphetamine on Summit County Overdoses Source: Summit County Medical Examiner's Office

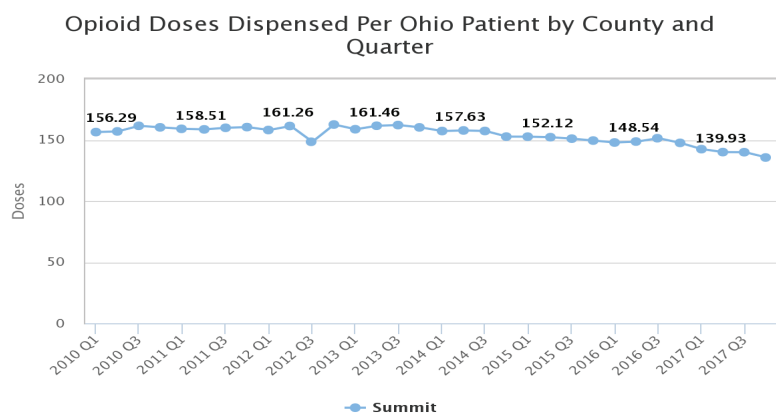


Figure 8b: Opioids Doses Dispensed to Ohio Medical Patients Per Capita Source: Ohio Automated Rx Reporting System (OARRS)

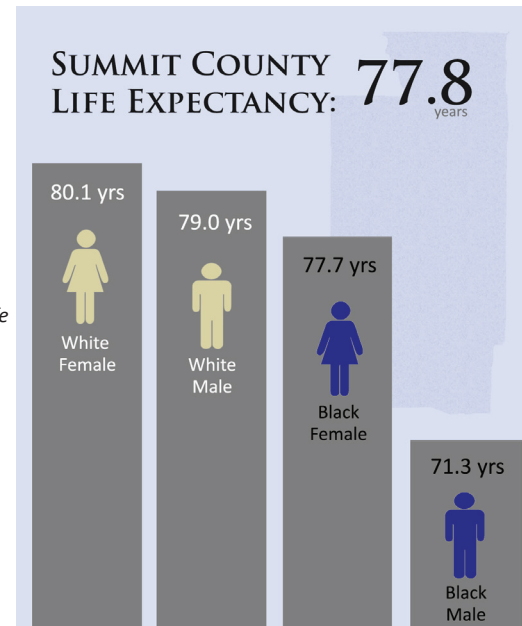
Life Expectancy and Differences By Race and Gender

Even though Summit County residents born in the last seven years can expect to live nearly 78 years, the life expectancy figures show some big differences between different groups of people. Figure 8 shows that there is a two-year difference between the estimated life expectancy at birth of white females (80.1 years) and black females (77.7 years). The gap between males of different races is even larger. The estimated life expectancy at birth was 79.0 years for white males and only 71.3 years for black males.

Figure 9 shows that life expectancy can also be very different depending on where you live. The map below tells a clear story: those living in the cities of Akron or Barberton have life expectancies which are several years shorter than those living in the suburbs. The Akron Central cluster has the lowest life expectancy of the 20 clusters, at just 71.8 years for infants born between 2008 and 2015. Of the remaining Akron clusters, five have life expectancies below the county average of 77.8 years. Only the Akron Northwest

Figure 10: Life Expectancy, Overall and By Race and Gender

Source: ODH death records, SCPH calculations, Calculating Life Expectancy In Small Areas



cluster has life expectancy figures that look more like the suburbs than the rest of the city. Barberton's life expectancy at birth is 74.4 years; better than most Akron clusters, but not as high as the other suburbs.

The map also shows that the differences between neighboring parts of the county can be pretty big. For example, life expectancy in the Akron North cluster is just under 74; this is more than six years lower than their neighbors in the Akron Northwest and Munroe Falls / Tallmadge clusters.

While there are many factors that influence the relationship between where people live and how long people can expect to live, one factor stands out; income. People living in areas with higher incomes tend to have longer life expectancies, while people living in lower income areas tend to have lower life expectancies. In fact, there is a strong correlation between median family income in the 20 clusters and the life expectancy of the people who live there.

**Life Expectancy at Birth by Cluster
Summit County 2008-2015**

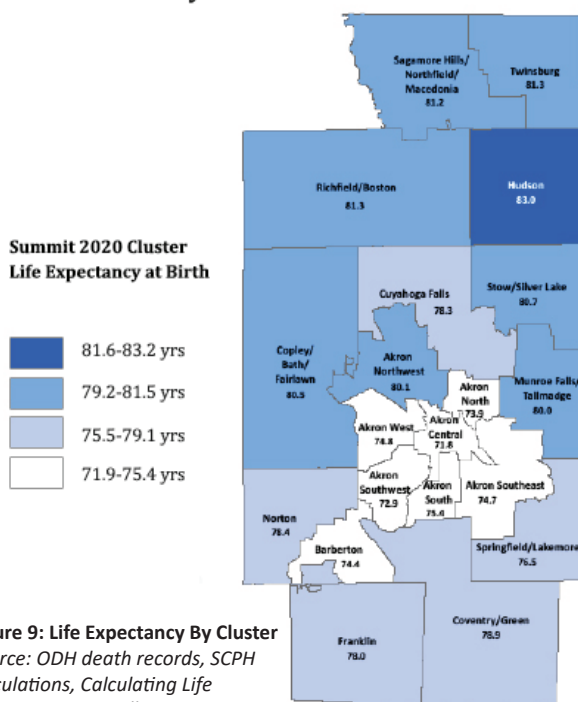


Figure 9: Life Expectancy By Cluster
Source: ODH death records, SCPH calculations, Calculating Life Expectancy In Small Areas

⁵Eayres, D., & Williams, E. (2004). Evaluation of methodologies for small area life expectancy estimation. *J Epidemiol Community Health*, 58(3), 243-249. Retrieved February 9, 2016, from <http://jech.bmj.com/content/58/3/243.full>