

Population Health Vital Statistics Brief:

Death and Life Expectancy, 2007-2021

The *Population Health Vital Statistics Data Brief* series was created to provide regular updates to the Community Health Assessment and to provide the community with additional important information about population health. For more information on the Community Health Assessment and to access other reports in the *Vital Statistics Data Brief* series, please visit scph.org/assessments-reports

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Introduction

This publication is the first of several 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.

Leading Causes of Death in Summit County

The top five causes of death in Summit County since 2016 are (in order) heart disease, cancer, COVID-19, accidents, and chronic lower respiratory disease (CLRD).

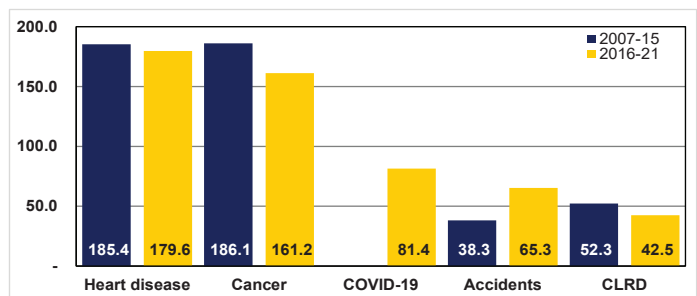
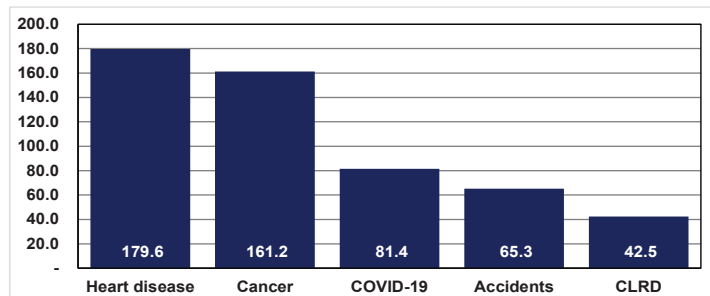
Death rates from heart disease and cancer consistently rank as the two biggest causes. Since 2007, heart disease death rates dropped from 185 per 100,000 people to 179 from 2016-21. Cancer death rates also improved, falling from 186 to 161 per 100,000 people. From 2020-2021, COVID-19 claimed 1,455 lives in Summit County, making it a top five cause of death in just two years.



SCPH data dashboards

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Figures 1 and 2: Age-Adjusted Death Rates for Top Causes of Death in Summit County, combined 2017-2021 (Fig 1); 2012-16 and 2017-21 (Fig 2). Source: Ohio Department of Health (ODH) Death Certificate Data, Centers for Disease Control and Prevention

Summit County's death rates for chronic lower respiratory disease over the last five years dropped since 2015 from 52.3 to 42.5 per 100,000).

Within the accidental death category, drug-related accidental deaths rose sharply since 2015, from 18 per 100,000 to 42 per 100,000 from 2016-2021 as the overdose crisis unfolded.

Accidental death rates from other causes such as motor vehicle accidents or falls only rose slightly overall, rising from 22 per 100,000 to 25 per 100,000 since 2015. However, fall-related deaths among seniors (the largest category within non-drug related accidental deaths) saw a slight decrease during these years.

Disparities in Leading Causes of Death

While the county's two largest racial groups, whites and African-Americans, 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 African-Americans are higher than for whites on four of the five most common causes of death. More importantly, age-adjusted death rates for African-Americans are higher than for whites on the two most common causes of death, heart disease and cancer. As shown in Figure 3 below, the rate of heart disease for African-Americans since 2007 was 267 per 100,000 people, while the rate for whites was 174 per 100,000. For cancer, the rates were 208 for African-Americans and

197 for whites. Only deaths due to chronic lower respiratory disease were higher for whites than African-Americans.

The rise of drug overdose deaths

Drug overdose deaths began to rise in Summit County in 2013, peaking with the introduction of carfentanil into the community in 2016. White individuals were the primary drivers of the early years of the overdose epidemic. Figure 4 shows that the number of drug overdose deaths per 1,000 population for white individuals was well above the rate for black individuals between 2007 and 2015. By the 2016 to 2021 period, the black

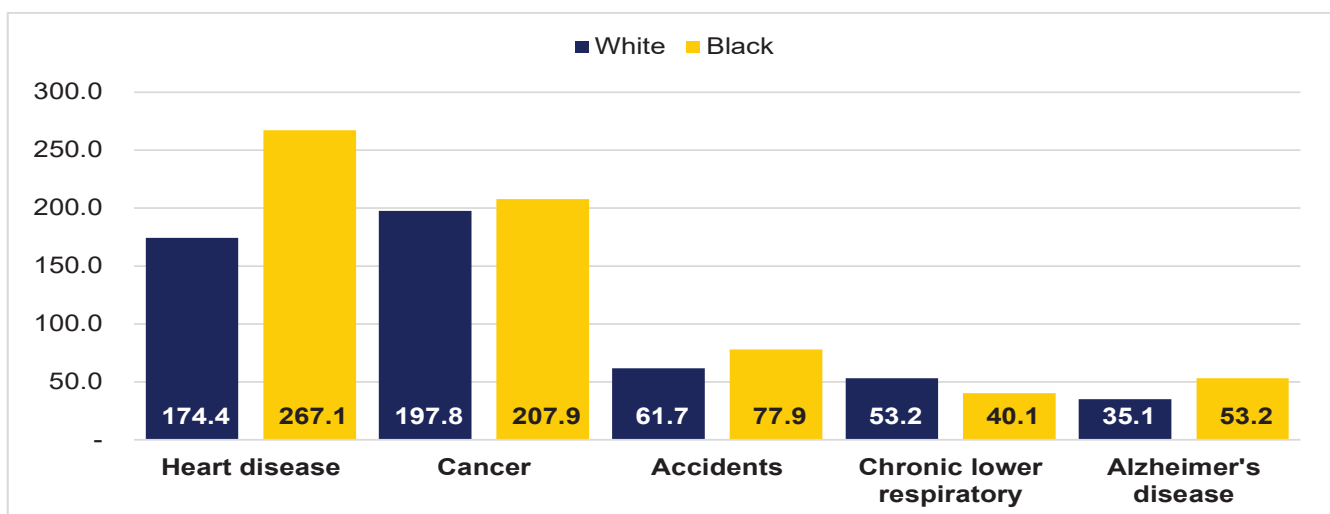


Figure 3: Disparities in Age-Adjusted Death Rates for Top Causes of Death per 100,000 by Race, Summit County 2016-2021
 Source: ODH Death Certificate Data

individual rate surpassed the white individual rate, even though both rates rose sharply from the previous five-year period.

Figures 5 and 6 show how overdoses have grown over the long-term by race (see Figure 5 for black individuals & Figure 6 for white individuals).

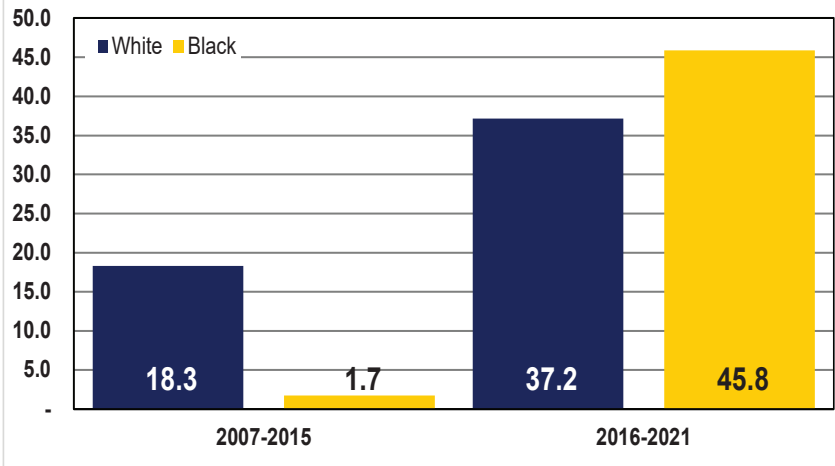


Figure 4: Drug overdose deaths per 1,000 population by race, Summit County 2007-2015 and 2016-2021 Source: ODH Death Certificate Data

Overdose-related deaths were the 25th highest cause of death for black individuals from 2007 to 2013, rising to the 6th highest cause between 2014 and 2021. For white individuals, overdose-related deaths rose from the 13th highest cause to the 7th highest cause during the same years.

Rank 2007-2013	2007-2013	Black deaths 07-13	Rank 2014-2021	2014-2021	Black deaths 14-21
1	Malignant neoplasms of trachea, bronchus and lung	309	1	Cerebrovascular diseases	349
2	Cerebrovascular diseases	272	2	All other forms of heart disease	338
3	All other forms of chronic ischemic heart disease	246	3	All other forms of chronic ischemic heart disease	326
4	All other forms of heart disease	212	4	Malignant neoplasms of trachea, bronchus and lung	296
5	Diabetes mellitus	209	5	Diabetes mellitus	286
6	Other chronic lower respiratory diseases	176	6	Accidental poisoning and exposure to noxious substances	237
7	Renal failure	156	7	Alzheimers disease	230
8	Acute myocardial infarction	155	8	Acute myocardial infarction	227
9	Hypertensive heart disease	142	9	Hypertensive heart disease	226
10	Alzheimers disease	135	10	Assault (homicide) by discharge of firearms	204
25	Accidental poisoning and exposure to noxious substances	47			

Figure 5: Top 15 ranked detailed causes of death for black individuals, Summit County 2017-13 and 2014-21

Source: ODH Death Certificate Data

Rank 2007-2013	2007-2013	White deaths 07-13	Rank 2014-2021	2014-2021	White deaths 14-21
1	All other forms of chronic ischemic heart disease	2,629	1	All other forms of chronic ischemic heart disease	2,635
2	Malignant neoplasms of trachea, bronchus and lung	2,169	2	All other forms of heart disease	2,232
3	Other chronic lower respiratory diseases	1,903	3	Alzheimers disease	2,190
4	Cerebrovascular diseases	1,702	4	Other chronic lower respiratory diseases	2,110
5	All other forms of heart disease	1,554	5	Malignant neoplasms of trachea, bronchus and lung	2,040
6	Acute myocardial infarction	1,296	6	Cerebrovascular diseases	1,900
7	Alzheimers disease	1,295	7	Accidental poisoning and exposure to noxious substances	1,335
8	Diabetes mellitus	887	8	Heart failure	1,325
9	Heart failure	776	9	Acute myocardial infarction	1,301
10	Pneumonia	734	10	Diabetes mellitus	1,138
13	Accidental poisoning and exposure to noxious substances	421			

Figure 6: Top 15 ranked detailed causes of death for white individuals, Summit County 2017-13 and 2014-21

Source: ODH Death Certificate Data

Life Expectancy and Premature Mortality

“During the 20th century, life expectancy at birth among U.S. residents increased by 62%, from 47.3 years in 1900 to 76.8 in 2000, and unprecedented improvements in population health status were observed at every stage of life.”¹

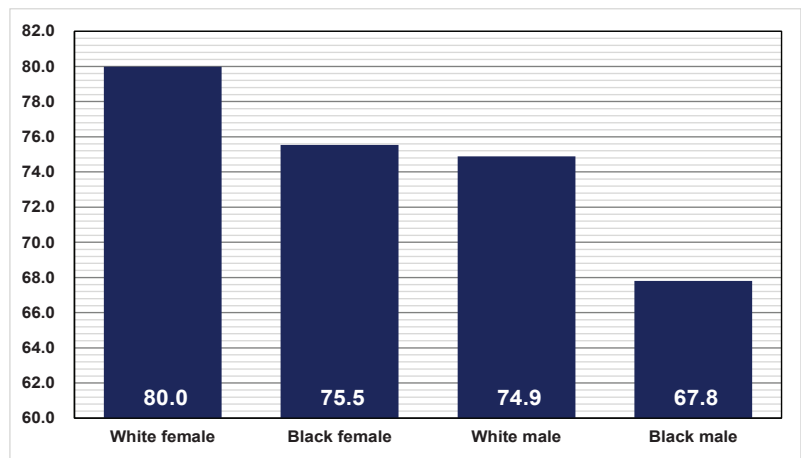
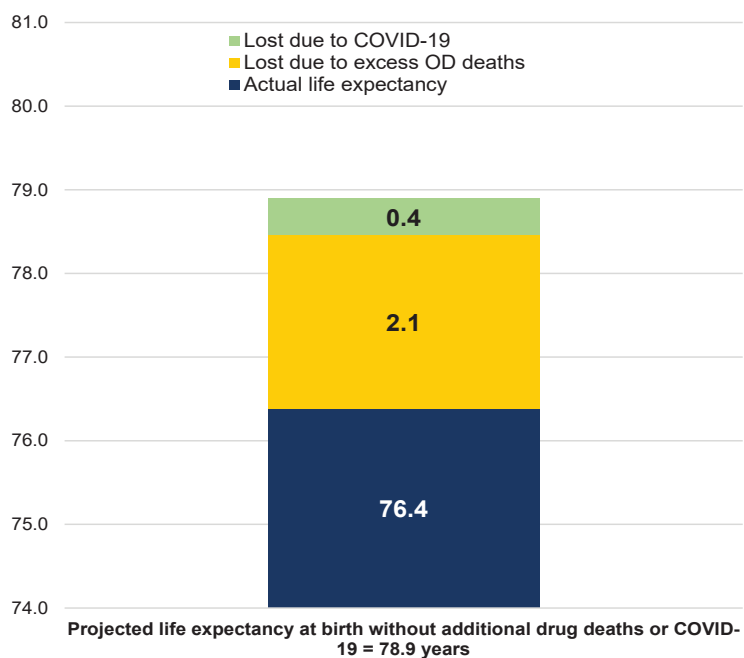
expectancy as of the 2017-2021 period, 80 years, while black females can expect to live 75.5 years. Life expectancy for white males is nearly the same as for black females, 74.9 years, while life expectancy for black males is just under 68 years.

The ultimate goal of public health is to help the community live better and to live longer. There are two main ways of looking at the question of living longer. The first is to estimate a community's life expectancy, which is defined as the number of years an infant born today can expect to live. The second way is to estimate what is called Years of Potential Life Lost, or YPLL. YPLL measures premature mortality. It is calculated by subtracting the age of each person who dies from what is considered an average life span (usually 75), then adding up the number of years lost for all people who died prematurely combined.

Life Expectancy

Life expectancy in Summit County dropped from nearly 79 years between 2007 and 2015 to 76.4 years between 2016 and 2021. Deaths due to drug overdoses and COVID-19 were the main drivers of the decline, reducing life expectancy by 2.1 years (drug overdoses) and 0.4 years (COVID-19).

Life expectancy data shows some significant disparities by race and sex. White females have the highest life



¹ National Center for Health Statistics. Health, United States, 2010: with special feature on death and dying. Hyattsville, MD: CDC, National Center for Health Statistics, 2011. Available at <http://www.cdc.gov/nchs/hus.htm>. Accessed May 16, 2011.

Figure 7-8: Life Expectancy at Birth, Summit County 2016-2021 (Figure 7); Disparities in Life Expectancy by Race and Sex, Summit County 2016-2021 (Figure 8) Source: ODH Death Certificate Data

Life Expectancy by Place of Residence

Figure 9 shows that life expectancy can also be very different depending on where you live. The map tells a clear story: those living in the cities of Akron or Barberton generally have shorter life expectancies than those living in most Summit County suburbs. The Akron Central cluster has the lowest life expectancy of the 20 clusters, at just 69.2 years for infants born between 2016 and 2021. Of the remaining Akron clusters, only the Akron Northwest cluster has life expectancy figures that look more like the suburbs than the rest of the city. Barberton's life expectancy at birth is 73.9 years; better than most Akron clusters, but not as high as the other suburbs.

Summit 2020 clusters

2016-2021

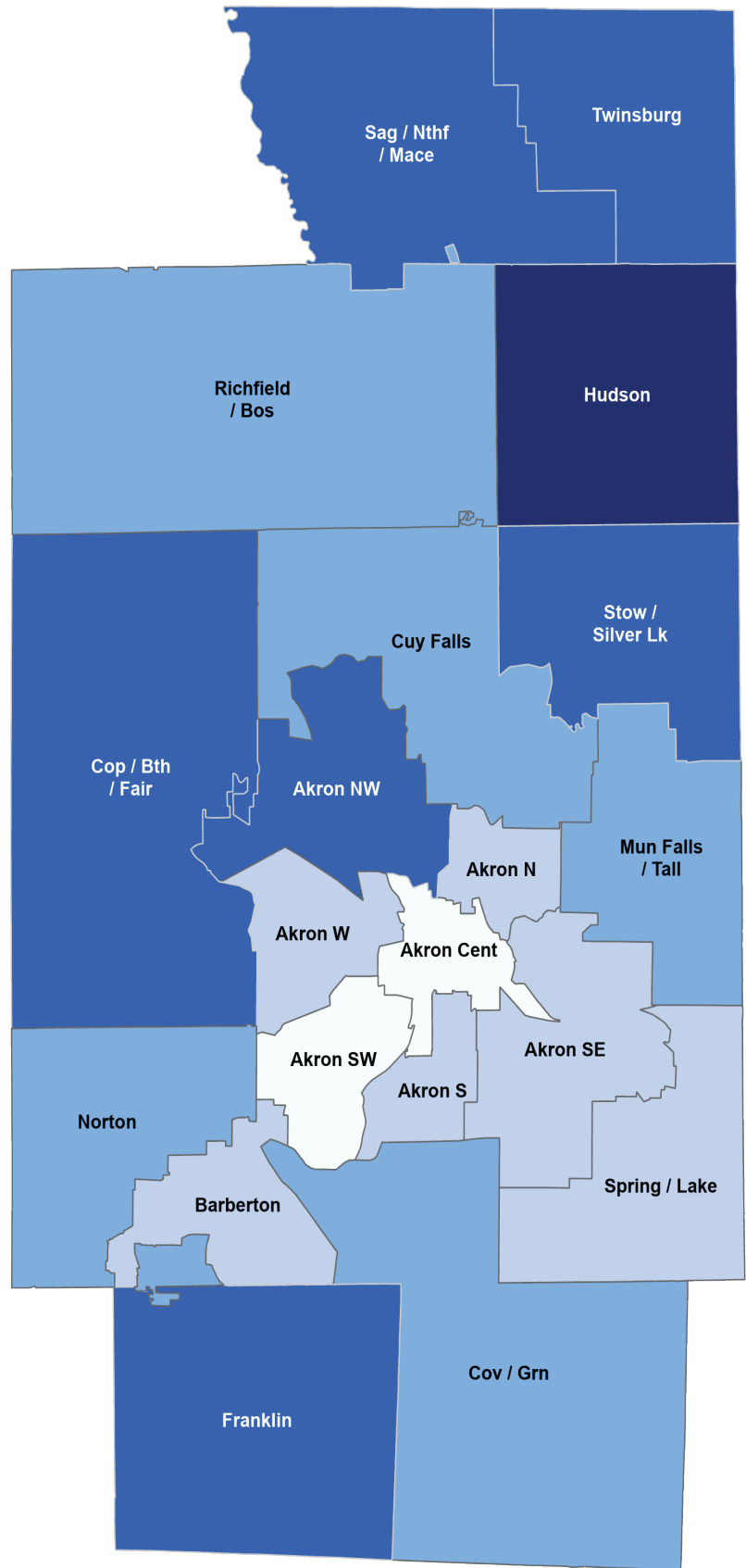
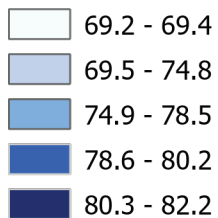


Figure 9: Life Expectancy, Overall and By Race Source: ODH death records, SCPH calculations, Calculating Life Expectancy In Small Areas

Years of Potential Life Lost (YPLL)

Between 2013 and 2021, there were approximately 9,600 YPLL per 100,000 population. YPLL rose by 21% between the 2007-15 and 2016-21 time periods. Drug overdoses and COVID-19 were the main drivers of this increase, as was the case with life expectancy (Figure 10; top right).

Black males had the highest YPLL per 100,000 population (over 17,000), followed by white males, black females, and white females (Figure 11; center right).

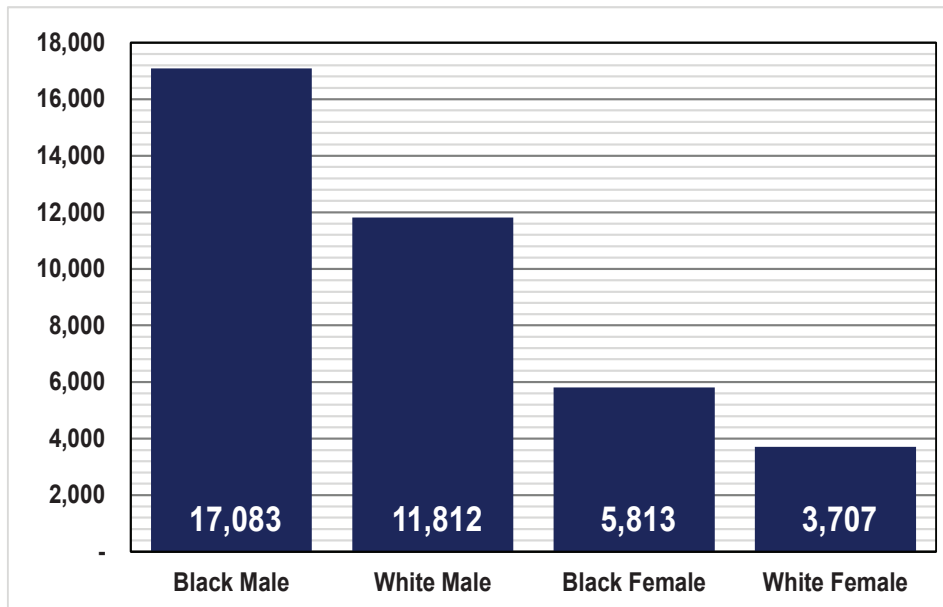
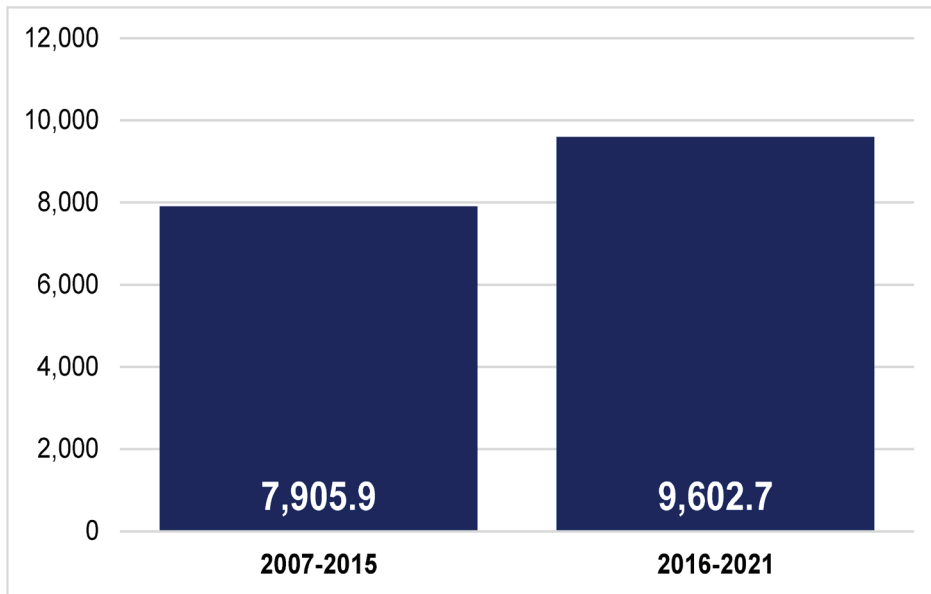


Figure 10: Years of Potential Life Lost, Summit County 2017-2021

Figure 11: Years of Potential Life Lost by Race, Summit County 2017-2021

Source: ODH Death Certificate Data

Appendix 1: Top 5 Detailed Causes of Death - Total Deaths 2007-2021

Cause of Death	Total 2007-2021	Percent of total	Trend 2007-2021	Percent change*
Heart disease	19,455	25%		16%
All other forms of chronic ischemic heart disease	5,909	30%		-16%
All other forms of heart disease	4,396	23%		55%
Acute myocardial infarction	3,019	16%		-11%
Heart failure	2,416	12%		70%
Hypertensive heart disease	2,001	10%		72%
Atherosclerotic cardiovascular disease, so described	1,216	6%		-12%
Hypertensive heart and renal disease	205	1%		204%
Acute rheumatic fever and chronic rheumatic heart diseases	131	1%		19%
Other acute ischemic heart diseases	76	0%		80%
Acute and subacute endocarditis	51	0%		86%
Diseases of pericardium and acute myocarditis	35	0%		-44%
Malignant neoplasms (cancer)	18,077	24%		-5%
Cancer of trachea, bronchus and lung	4,894	27%		-23%
All other and unspecified cancers	2,154	12%		24%
Cancer of colon, rectum and anus	1,614	9%		-17%
Cancer of breast	1,296	7%		-7%
Cancer of pancreas	1,238	7%		16%
Cancer of prostate	891	5%		-17%
Leukemia	713	4%		4%
Non-Hodgkins lymphoma	655	4%		-14%
Cancer of liver and intrahepatic bile ducts	578	3%		56%
Cancer of bladder	521	3%		-3%
Cancer of esophagus	508	3%		-9%
Cancer of meninges / brain / CNS	472	3%		33%
Multiple myeloma and immunoproliferative neoplasms	410	2%		33%
Cancer of ovary	382	2%		-39%
Cancer of kidney and renal pelvis	358	2%		1%
Cancer of lip, oral cavity and pharynx	311	2%		23%
Cancer of stomach	310	2%		-11%
Cancer of corpus uteri and uterus, part unspecified	262	1%		17%
Malignant melanoma of skin	258	1%		-15%
Cancer of larynx	121	1%		-8%
Cancer of cervix uteri	94	1%		24%
Hodgkins disease	36	0%		50%
Other and unspecified cancer of lymphoid, hematopoietic and related tissue	1	0%		
Chronic lower respiratory diseases	5,036	7%		-7%
Other chronic lower respiratory diseases	4,455	88%		-1%
Emphysema	482	10%		-46%
Asthma	91	2%		14%
Bronchitis, chronic and unspecified	8	0%		-50%
Accidents (unintentional injuries)	4,258	6%		111%
Accidental poisoning and exposure to noxious substances	2,074	49%		283%
Falls	921	22%		34%
Motor vehicle accidents	594	14%		42%
Other and unspecified nontransport accidents and their sequelae	490	12%		39%
Accidental exposure to smoke, fire and flames	61	1%		180%
Accidental drowning and submersion	57	1%		0%
Water / air / space / other and unspecified transport accidents	28	1%		-11%
Other land transport accidents	26	1%		-50%
Accidental discharge of firearms	7	0%		0%
Cerebrovascular diseases	4,313	6%		5%
Cerebrovascular diseases	4,313			5%
Total, top 5 leading causes of death	51,139	67%		9%
Total, all leading causes of death	76,435	--		13%

* In order to smooth out annual variations, the percent change column is calculated using the average of the first three years (2007-09) and the last three years (2020-22). It should be noted that causes with very low totals (<20) produce unstable rates and should be viewed with caution.

Appendix 2: Leading Causes of Death by Age Group, 2007-2021 (non-COVID-19)

Rank	Under 5	5 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75 - 84	85 & over
1	Perinatal condit.	Unintentional injury	Unintentional injury	Unintentional injury	Unintentional injury	Cancer	Cancer	Cancer	Cancer	Heart disease
2	Congen / chromo abnorm	Cancer	Suicide	Suicide	Heart disease	Heart disease	Heart disease	Heart disease	Heart disease	Cancer
3	Unintentional injury	Suicide	Assault (homicide)	Assault (homicide)	Cancer	Unintentional injury	Chronic lower respiratory	Chronic lower respiratory	Chronic lower respiratory	Alzheimer's disease
4	Heart disease	Assault (homicide)	Cancer	Heart disease	Suicide	Suicide	Unintentional injury	Stroke	Stroke	Stroke
5	Assault (homicide)	< 10 deaths	Heart disease	Cancer	Assault (homicide)	Chronic liver disease	Diabetes	Diabetes	Alzheimer's disease	Chronic lower respiratory
6	< 10 deaths	< 10 deaths	Congen / chromo abnorm	Diabetes	Chronic liver disease	Diabetes	Stroke	Unintentional injury	Diabetes	Influenza and pneumonia
7	< 10 deaths	< 10 deaths	Stroke	Stroke	Diabetes	Stroke	Chronic liver disease	Kidney disease	Kidney disease	Diabetes
8	< 10 deaths	< 10 deaths	Congen / chromo abnorm	Stroke	Stroke	Chronic lower respiratory	Suicide	Septicemia	Unintentional injury	Unintentional injury
9	< 10 deaths	< 10 deaths	Chronic lower respiratory	Human immunodeficiency virus (HIV) disease	Septicemia	Septicemia	Septicemia	Chronic liver disease	Influenza and pneumonia	Hypertension
10	< 10 deaths	< 10 deaths	Chronic liver disease	Septicemia	Septicemia	Influenza and pneumonia	Kidney disease	Influenza and pneumonia	Parkinson's disease	Kidney disease

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 since 2007. The top five most common causes of death are color-coded so that readers can follow the progression of that cause throughout the age spectrum. Deaths due to COVID-19 are not included because they weren't a factor in the years prior to 2020. In 2020 and 2021, COVID-19 was in the top five causes of death for every group aged 35 and older.