Population Health Vital Statistics Brief:

Death and Life Expectancy, 2008-2022

October 2024

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

Summit County Public Health • Population Health Division
1867 W. Market St., Akron, Ohio 44313 • (330) 923-4891
www.scphoh.org

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.

INSIDE THIS BRIEF

Leading Causes of Death in Summit County

The top five causes of death in Summit County since 2008 are (in order) heart disease, cancer, accidents, chronic lower respiratory disease (CLRD), and stroke. These causes don't include COVID-19, which was the third-leading cause of death from 2018-2022.

Deaths from heart disease and cancer consistently rank as the two biggest causes, with heart disease death rates rising from 200 per 100,000 people to 235 between 2008-12 and 2018-22. Cancer death rates declined slightly during the same period. Accidental deaths, led by drug overdoses and falls among seniors, rose significantly, while CLRD deaths dropped slightly. Stroke death rates have remained relatively flat since 2008.

SCPH data dashboards

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.

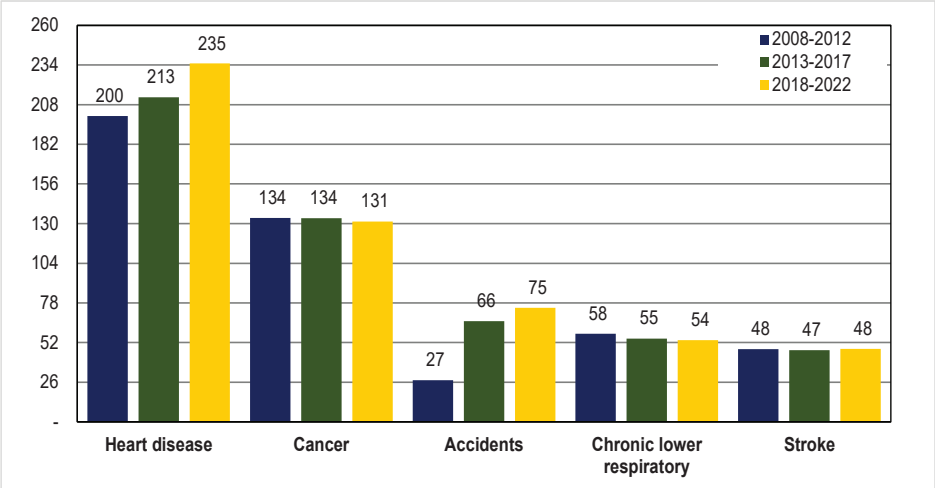


Figure 1: Top Five Causes of Death (Age-Adjusted Death Rates per 100,000). Source: Ohio Department of Health (ODH).

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 2 below, the rate of heart disease for African-Americans since 2007 was 247 per 100,000 people, while the rate for whites was 189 per 100,000. For cancer, the rates were 195 for African-Americans and 159 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. The black individual rate surpassed the

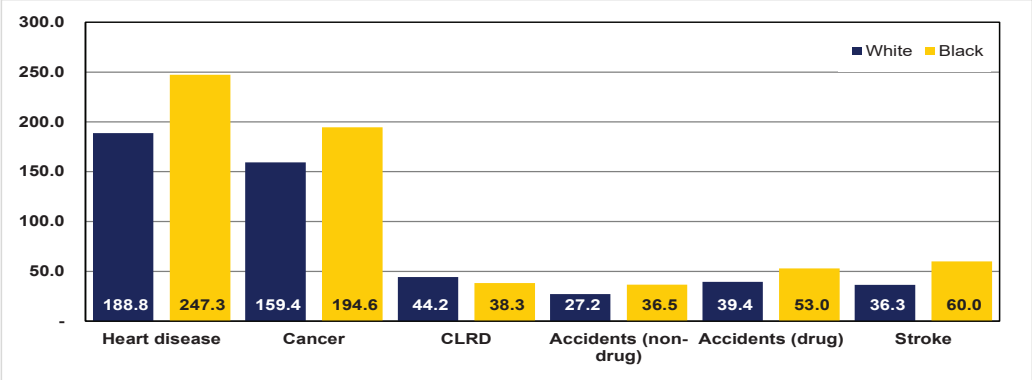


Figure 2: Disparities in Age-Adjusted Death Rates for Top Causes of Death per 100,000 by Race, Summit County 2018-2022
Source: ODH Death Certificate Data

white individual rate during the 2016-2021 period, even though both rates rose sharply from the previous five-year period.

Figures 4 and 5 show how overdoses have grown over the long-term by race (see Figure 4 for black individuals & Figure 5 for white individuals).

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.

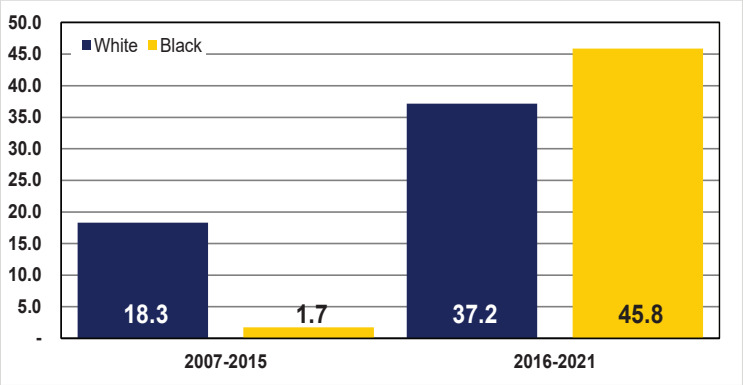
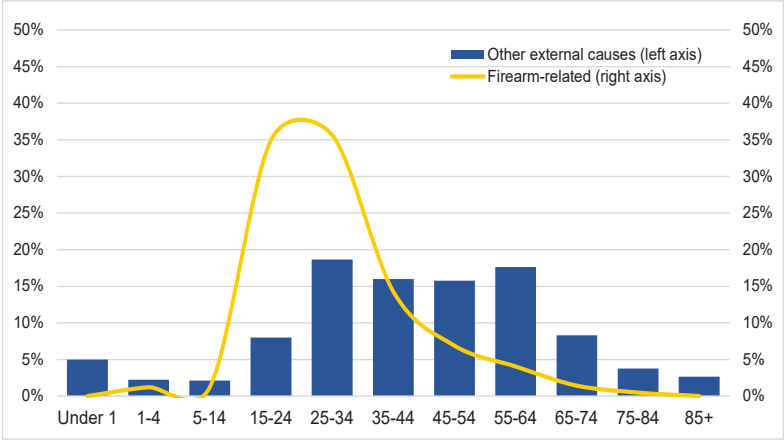


Figure 3: Drug overdose deaths per 1,000 population by race, Summit County 2007-2015 and 2016-2021 Source: ODH Death Certificate Data

Disparities in externally-caused deaths

According to the World Health Organization, an externally caused death is "a death due to accidents and violence including environmental events, circumstances and conditions..." County-wide, 7% of all deaths are external. Nearly three-quarters of external deaths happen between the ages of 15-64, while nearly 80% of deaths by natural causes happen at age 65 or older.

Along with overdose deaths, deaths by firearm account for the vast majority of externally-caused deaths regardless of race. However, deaths by firearm are a significantly greater problem for young, black individuals, with firearm deaths running far higher than other external causes in the 15-34 age ranges. Beyond age 44, firearms as a cause of death for black individuals drops sharply. By contrast, firearm-related deaths for white individuals account for 12% of all externally-caused deaths. Another important difference is in the type of firearm-related death. While accidental firearm-related deaths by race are about equal (1% for both white and black individuals), 85% of black firearm-related deaths are caused by homicide. More than 83% of white firearm-related deaths are caused by suicide.



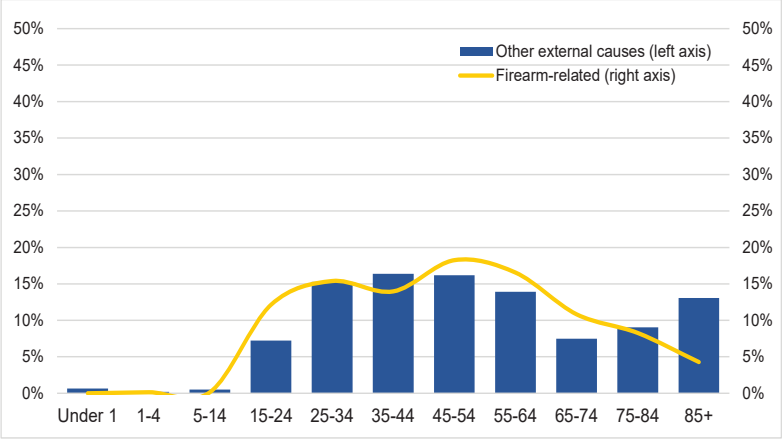


Figure 4 & 5: Firearm-related and other external causes of death for black (Figure 4 - top) and white (Figure 5 - bottom) individuals, Summit County 2018-2022 Source: ODH Death Certificate Data

Emerging Trends in Leading Causes of Death

Heart Disease -- After decades of progress, heart disease death rates rose between 2008-2022. Age-adjusted total heart disease rates in Summit County rose from 177.0 per 100,000 in 2008-2012 to 174.9 from 2013-2017 and 188.0 from 2018-2022.

The overall rise in rates doesn't tell the whole story, however. Different types of heart disease are moving in different directions. Ischemic heart disease deaths (those related to blockages and lack of blood supply), which is the largest single category of heart disease deaths, has been dropping steadily since 2008. Meanwhile, the other major categories of heart disease deaths, hypertensive heart disease, heart failure, and cardiac arrythmia death rates have been rising significantly at the same time. These increases were consistent with national trends (Figure 11).

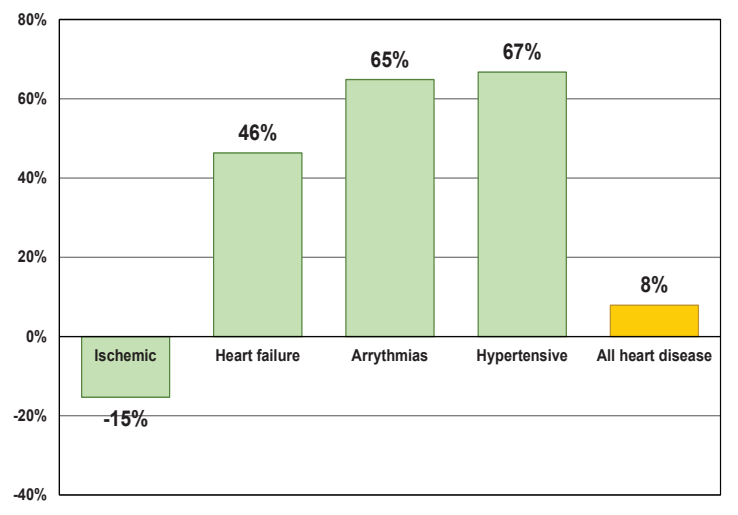


Figure 6: Change in Heart Disease Death Rates by Type, , 2008-2022, Source: ODH Death Certificate Data

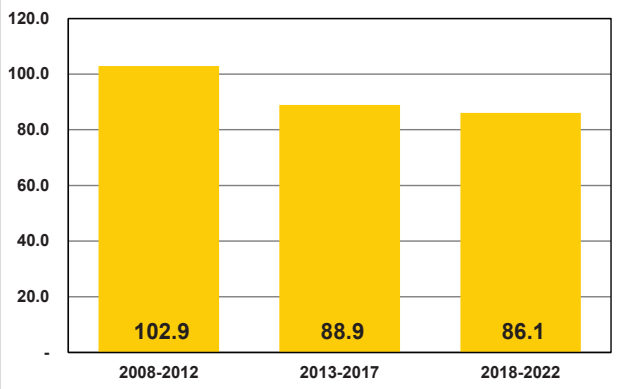


Figure 7: Ischemic Heart Disease Death Rates per 100,000 (Age-Adjusted), 2008-2022, Source: ODH Death Certificate Data

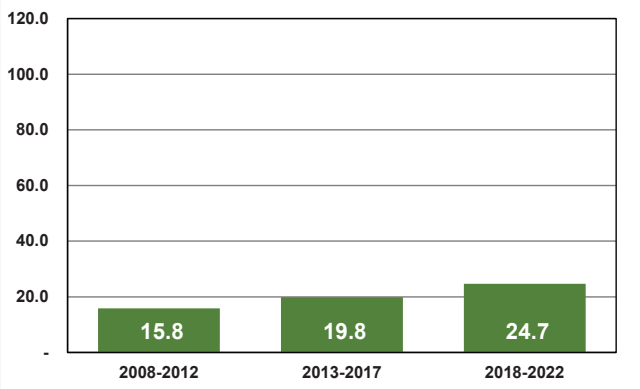


Figure 8: Hypertensive Heart Disease Death Rates per 100,000 (Age-Adjusted), 2008-2022, Source: ODH Death Certificate Data

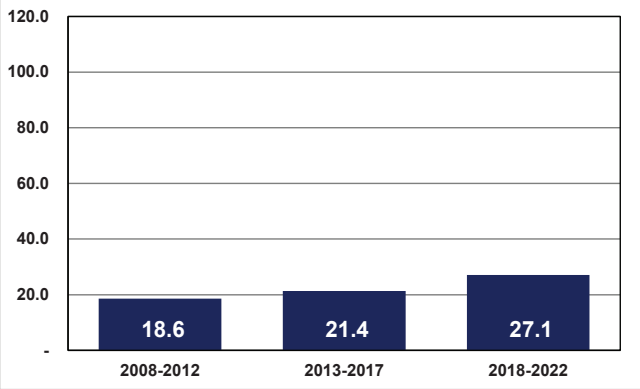


Figure 9: Heart Failure Death Rates per 100,000 (Age-Adjusted), 2008-2022, Source: ODH Death Certificate Data

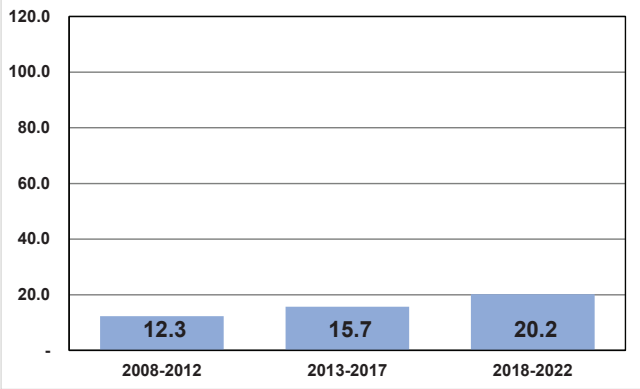


Figure 10: Cardiac Arrythmia Death Rates per 100,000 (Age-Adjusted), 2008-2022, Source: ODH Death Certificate Data

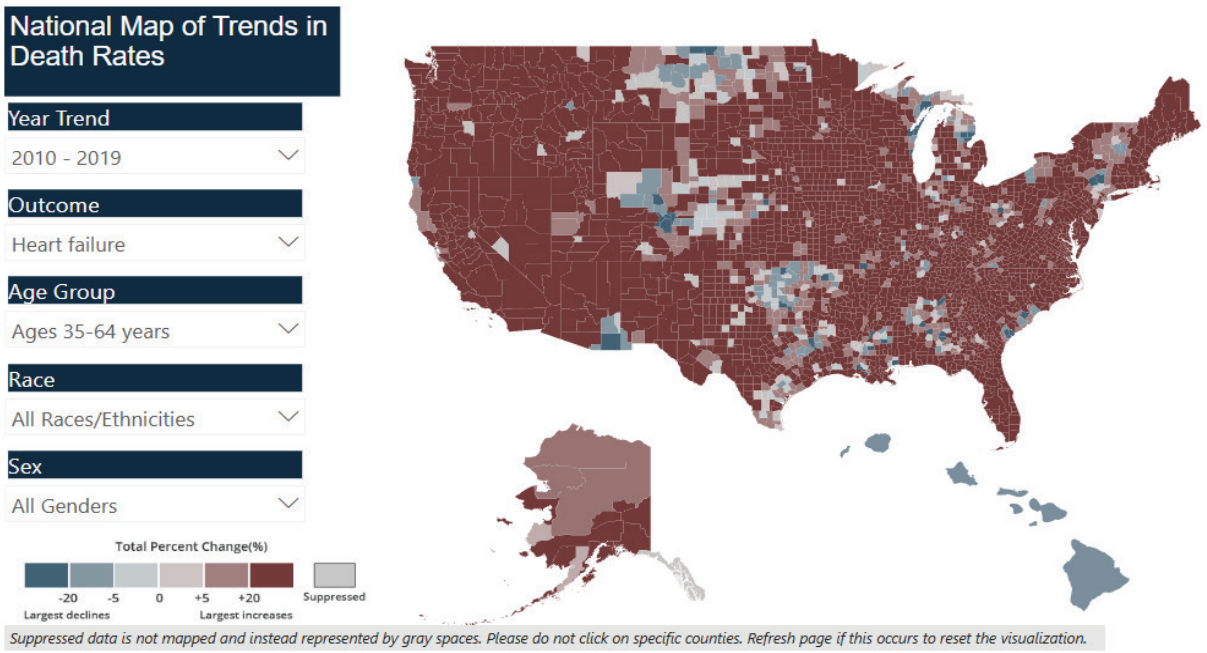


Figure 11: Change In Heart Failure Deaths, United States by County, Ages 35-64, 2010-2019, Source: CDC (https://www.cdc.gov/dhdsp/maps/hd-stroke-mortality-dashboard.htm).

Alcoholic Liver Disease

Alcoholic liver disease in Summit County has been trending upward since 2008. Between 2008 and 2022, alcoholic liver disease death rates rose from 3.2 per 100,000 to 7.8 per 100,000; a 140% increase. Death rates for the U.S. as a whole only rose by 80% during that same period.

Manner of Death

Manner refers to the way in which death occurs. Deaths can be from natural causes (i.e., disease) or from external causes such as accidents, homicides, or suicides. Deaths from natural causes rose from just over 5,000 in 2008 to nearly 6,200 in 2022; a 23% increase.

Deaths from external causes rose from 288 to 566 over the same period (99%). Accidental overdoses were the main driver of this increase; without overdoses, external deaths only rose by 55%. Within externally-caused deaths, accidents were by far the largest cause (three-quarters of all external deaths, on average). Accidental deaths rose by 135% between 2008 and 2022, while homicides rose by 122% and suicides rose by 1%.

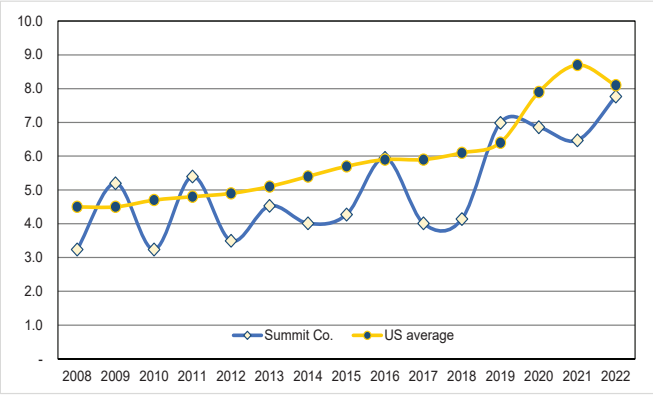


Figure 12: Alcoholic Liver Disease Death Rates per 100,000 (Age-Adjusted), 2008-2022, Source: ODH Death Certificate Data

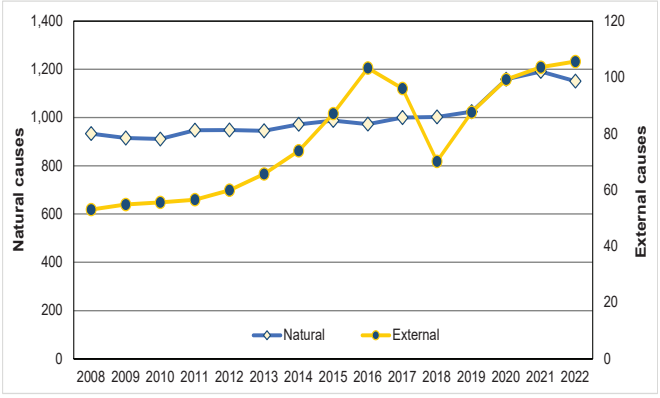


Figure 13: Changes in Manner of Death, 2008-2022, Source: ODH Death Certificate Data

Life Expectancy and Premature Mortality

The ultimate goal of public health is to help the community live better and longer. There are two main ways of looking at the question of living longer. The first is to estimate a community's life expectancy; the number of years an infant born today can expect to live. The second way is to estimate 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 prematuerly combined.

Life Expectancy

Life expectancy in Summit County dropped from 78.1 years between 2007 and 2014 to 76.9 years by 2015-2022. Deaths due to drug overdoses and COVID-19 were the main drivers of the decline, together reducing life expectancy at birth by more than a year (15 months).

Life expectancy data shows some significant disparities by sex and race. Females have the highest life expectancy between 2015 and 2022, 79.7 years, while males can expect to live 74.2 years. White individuals can expect to live 77.3 years, while black individuals can expect to live to 70.7 years.

Figure 14 shows geographic disparities as well. Between 2007 and 2014, suburban residents could expect to live to nearly 81, while residents of Akron could expect to live to 74; a gap of over 6 years. By 2015-2022, the gap between city and suburban residents had grown to nearly 9 years.

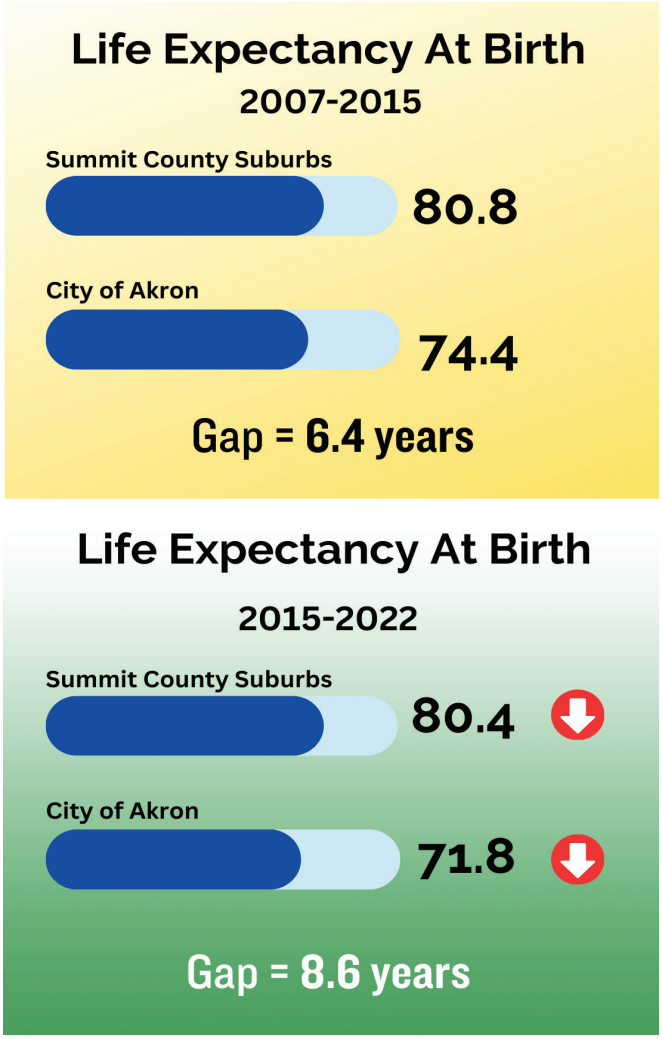


Figure 14: Disparities in Life Expectancy, Summit County vs. City Akron 2007-2022 Source: ODH Death Certificate Data

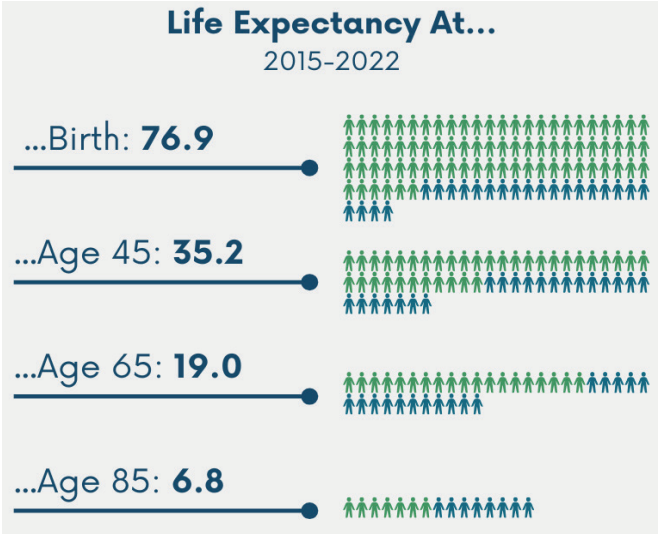


Figure 15: Life Expectancy At Different Ages, Summit County 2015-2022 Source: ODH Death Certificate Data

Overall, Summit County lost 15 months of life expectancy between 2008 and 2022. This decline impacted all age groups, with life expectancy at 45 dropping by nearly 3 months, and those at older ages dropping by between 1-3 months (Figure 16).

Figures 17 and 18 present a second look at age-related impact, with causes like COVID-19, heart disease, and Alzheimer's disease disproportionately hitting older populations the hardest, and causes like drug overdoses and assault deaths impacting younger and middle-age groups the hardest.

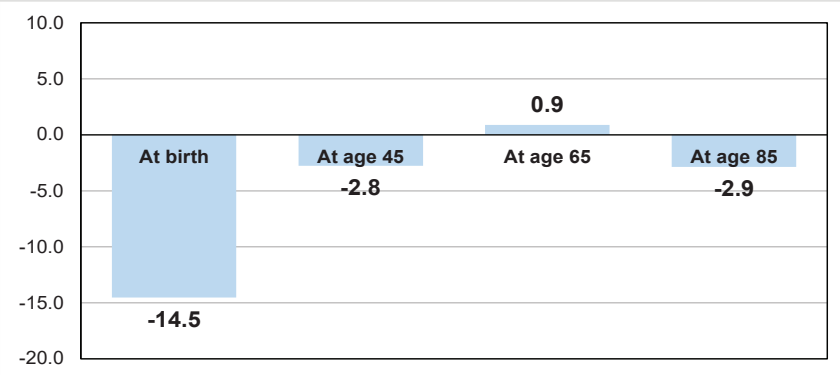


Figure 16: Change in Life expectancy at different ages, 2008-2022
Source: ODH death records, SCPH calculations

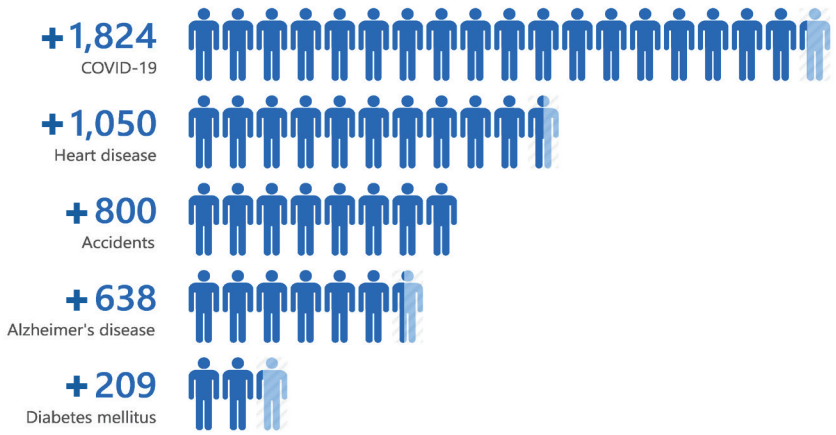


Figure 17: Top 5 Growth in Causes of Death, 2008-2012 to 2018-2022
Source: ODH death records, SCPH calculations

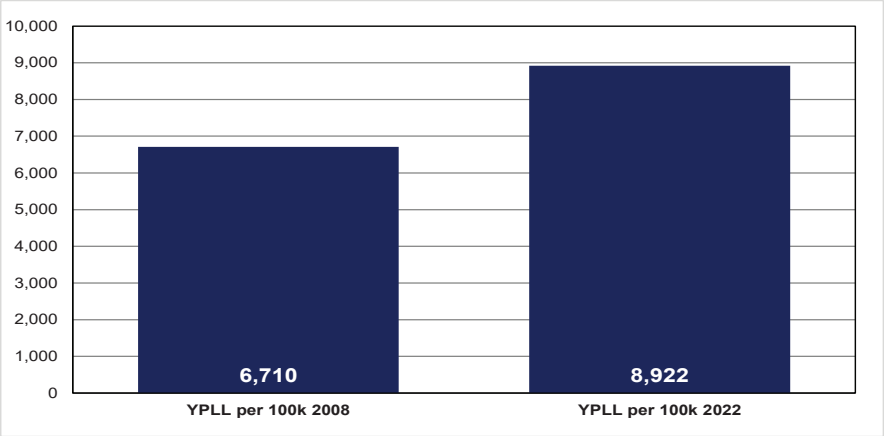
Age Group	COVID-19	Heart disease	Drug overdose	Alzheimer's	Diabetes	Nutritional deficiencies	Liver disease	Assault	Parkinson's	Essential Hypertension	All causes
< 1	0	1	0	0	0	0	0	(3)	0	0	4
1-4	0	1	1	0	0	0	0	3	0	0	14
5-14	0	0	0	0	(1)	0	1	4	0	0	5
15-24	2	(7)	61	0	6	0	0	42	0	1	115
25-34	11	32	195	0	(4)	0	3	30	0	1	346
35-44	34	15	199	0	5	0	2	21	1	7	320
45-54	73	(48)	81	1	(11)	1	(4)	6	0	5	(157)
55-64	213	226	116	(1)	27	7	62	12	2	21	909
65-74	432	526	31	29	121	32	62	3	41	50	2,511
75-84	489	93	4	136	47	25	(4)	(4)	23	(4)	551
85+	570	361	0	482	30	96	(2)	2	49	34	1,490
Total	1,824	1,200	688	647	220	161	120	116	116	115	6,108
% of total	30%	20%	11%	11%	4%	3%	2%	2%	2%	2%	100%

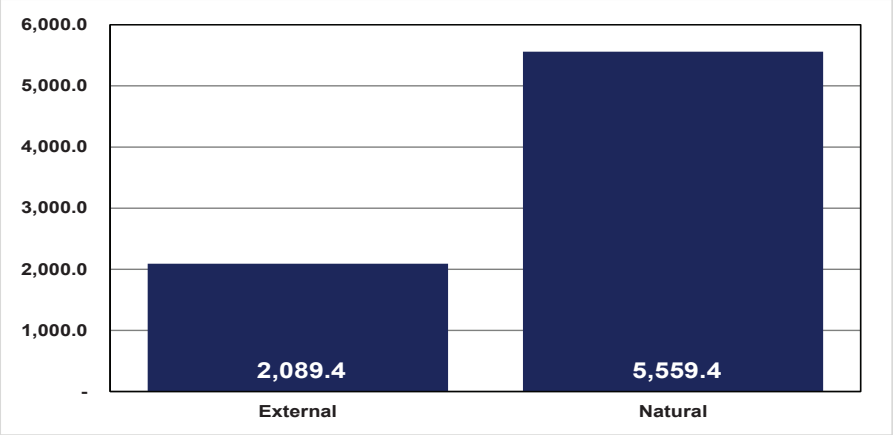
Figure 18: Top 10 Growth in Causes of Death by Age Group, 2008-2012 to 2018-2022
Source: ODH death records, SCPH calculations. Note: Red shading indicates higher growth in deaths; green low growth or decline.

Years of Potential Life Lost (YPLL)

Between 2008 and 2022, there were approximately 6,700 YPLL per 100,000 population. YPLL rose by 33% by 2022 (8,900 per 100,000). Drug overdoses and COVID-19 were the main drivers of this increase in premature mortality, as was the case with life expectancy.

While deaths by natural causes are the largest factor in the growth of premature deaths (93% of the total), deaths by external causes grew far faster than natural causes between 2008 and 2022 (114% vs. 14%, respectively).





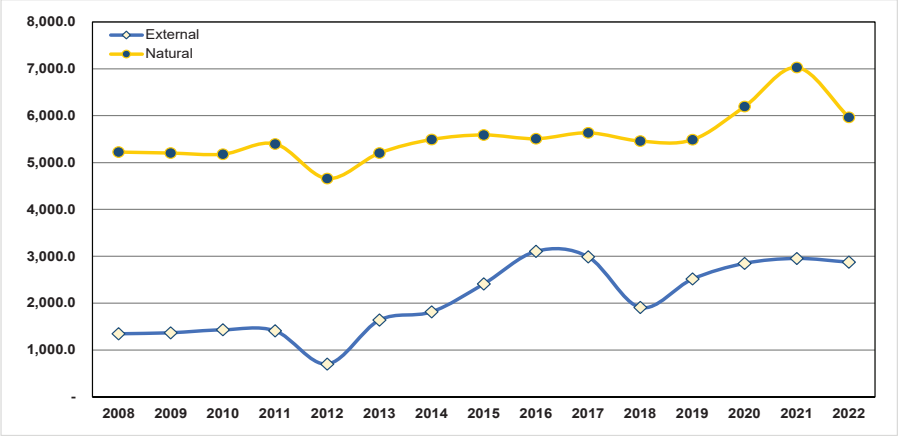


Figure 19: Years of Potential Life Lost per 100,000, Summit County 2008 & 2022
Figure 20: Years of Potential Life Lost by Manner of Death, Summit County 2008-2022
Figure 21: Trends in Years of Potential Life Lost by Manner of Death, Summit County 2008-2022

Source: ODH Death Certificate Data

Appendix 1: Top 10 Detailed Causes of Death - Total Deaths 2008-2022

Leading and Detailed causes	2008-2012	2013-2017	2018-2022	Total	Change	Trend
Heart disease						
All other forms of chronic ischemic heart disease	2,028	1,914	1,894	**5,836**	**-7%**	
All other forms of heart disease	1,269	1,537	1,726	**4,532**	**36%**	
Acute myocardial infarction	1,066	981	994	**3,041**	**-7%**	
Heart failure	654	821	1,056	**2,531**	**61%**	
Hypertensive heart disease	521	667	858	**2,046**	**65%**	
Atherosclerotic cardiovascular disease, so described	440	385	390	**1,215**	**-11%**	
Hypertensive heart and renal disease	38	63	121	**222**	**218%**	
Acute rheumatic fever and chronic rheumatic heart diseases	43	41	48	**132**	**12%**	
Other acute ischemic heart diseases	17	33	29	**79**	**71%**	
Acute and subacute endocarditis	9	22	22	**53**	**144%**	
Diseases of pericardium and acute myocarditis	12	8	9	**29**	**-25%**	
Cancer						
Malignant neoplasms of trachea, bronchus and lung	1,797	1,560	1,438	**4,795**	**-20%**	
All other and unspecified malignant neoplasms	630	769	797	**2,196**	**27%**	
Malignant neoplasms of colon, rectum and anus	560	525	496	**1,581**	**-11%**	
Malignant neoplasm of breast	459	419	410	**1,288**	**-11%**	
Malignant neoplasm of pancreas	365	430	445	**1,240**	**22%**	
Malignant neoplasm of prostate	305	261	312	**878**	**2%**	
Leukemia	227	244	243	**714**	**7%**	
Non-Hodgkin's lymphoma	228	221	199	**648**	**-13%**	
Malignant neoplasms of liver and intrahepatic bile ducts	168	219	218	**605**	**30%**	
Malignant neoplasm of bladder	163	174	175	**512**	**7%**	
Malignant neoplasm of esophagus	156	181	167	**504**	**7%**	
Malignant neoplasms of meninges, brain and other parts of central nervous system	155	163	170	**488**	**10%**	
Multiple myeloma and immunoproliferative neoplasms	120	148	146	**414**	**22%**	
Malignant neoplasm of ovary	132	129	107	**368**	**-19%**	
Malignant neoplasms of kidney and renal pelvis	106	119	131	**356**	**24%**	
Malignant neoplasms of lip, oral cavity and pharynx	94	98	116	**308**	**23%**	
Malignant neoplasm of stomach	112	96	96	**304**	**-14%**	
Malignant neoplasms of corpus uteri and uterus, part unspecified	79	95	94	**268**	**19%**	
Malignant melanoma of skin	95	79	81	**255**	**-15%**	
Malignant neoplasm of larynx	40	50	36	**126**	**-10%**	
Malignant neoplasm of cervix uteri	33	31	37	**101**	**12%**	
Hodgkin's disease	10	14	13	**37**	**30%**	
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue	-	1	-	**1**		
Chronic lower respiratory diseases						
Other chronic lower respiratory diseases	1,505	1,528	1,449	**4,482**	**-4%**	
Emphysema	216	105	144	**465**	**-33%**	
Asthma	31	28	36	**95**	**16%**	
Bronchitis, chronic and unspecified	5	-	3	**8**	**-40%**	
Accidents (unintentional injuries)						
Accidental poisoning and exposure to noxious substances	331	917	989	**2,237**	**199%**	
Falls	311	283	336	**930**	**8%**	
Motor vehicle accidents	177	193	230	**600**	**30%**	
Other and unspecified nontransport accidents and their sequelae	154	155	193	**502**	**25%**	
Accidental exposure to smoke, fire and flames	13	20	36	**69**	**177%**	
Accidental drowning and submersion	18	20	17	**55**	**-6%**	
Water, air and space, and other and unspecified transport accidents and their sequelae	8	13	9	**30**	**13%**	
Other land transport accidents	10	7	9	**26**	**-10%**	
Accidental discharge of firearms	-	4	3	**7**		
Stroke						
Cerebrovascular diseases	1,452	1,429	1,456	**4,337**	**0%**	
Alzheimer's disease						
Alzheimer's disease	1,041	1,283	1,679	**4,003**	**61%**	
Diabetes mellitus						
Diabetes mellitus	764	872	973	**2,609**	**27%**	
COVID-19						
Other and unspecified infectious and parasitic diseases and their sequelae	-	-	1,824	**1,824**		
Influenza and pneumonia						
Pneumonia	617	516	339	**1,472**	**-45%**	
Influenza	10	48	59	**117**	**490%**	
Kidney disease						
Renal failure	492	432	495	**1,419**	**1%**	
Chronic glomerulonephritis, nephritis and nephritis not specified as acute or chronic,and renal sclerosis unspecified	29	2	5	**36**	**-83%**	
Acute and rapidly progressive nephritic and nephrotic syndrome	1	7	7	**15**	**600%**	
Other disorders of kidney	-	1	-	**1**		
Grand total	**22,239**	**23,674**	**26,925**	**72,838**	**21%**	