

Tazewell County Mortality Report

2022

This report focuses on the leading causes and rates of death among Tazewell County residents.

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Executive Summary

The 2022 Tazewell County Mortality Report intends to outline the leading causes of death among Tazewell County residents and their contributing factors. The report outlines data on the number of deaths, death rates, and trends by age, gender, race, and cause of death. This information is valuable as it informs public health policy and prevention efforts.

Key Findings

- In 2022, a total of 1,657 deaths were registered among Tazewell County residents. This is a decrease of 45 deaths compared to 2021 at 1,702.
- The age adjusted death rate was 1,033.1 per 100,000 people. This is a decrease of 27.86 compared to 2021.
- The median age at death was 77 years.
- The top 5 leading causes of death in 2022 were:
 1. Cardiovascular Disease
 2. Cancer
 3. Dementia
 4. Respiratory Disease
 5. Accidental Deaths

Key Terms

- Crude Death Rates: Defined as the total number of deaths divided by the midyear population within a specific geographic area (i.e., county, zip code). Crude death rates are calculated in this report for specific age ranges; these are called age-specific death rates because they are a ratio of the number of deaths in each age group to the population of that age group.
- Age Adjusted death rates: These rates are based on population estimates and are standardized to remove any bias that could appear when comparing populations with varying age structures.
- Years of Potential Life Lost: Total years of life lost prior to age 75. Years of potential life lost (YPLL) measures premature mortality in a population. In other words, the higher the YPLL, the more people there are in the population who are dying prematurely (which is estimated to be before age 75).

Overall Mortality

Summary

In 2022, the Illinois Vital Records System indicated a total of 1,657 deaths among Tazewell County residents. The crude death rate for 2022 was 1,250.6 deaths per 100,000 people with an age-adjusted death rate of 1,033.1 per 100,000 people. Of the total deaths, 49.6% were male; females accounted for 50.4% of all deaths (Table 1). The total years of potential life lost (YPLL) was 9,950.5 years. This is a decrease in 739.5 years compared to 2021. The decrease in YPLL from 2021 to 2022 likely illustrates the normalization of Tazewell County’s mortality data following the impact SARS-CoV-2 had on mortality data and healthcare delivery in 2020 and 2021 (Figure 1).

The overall median age at death was 77 years, meaning half of Tazewell County deaths in 2022 were greater than or equal to 77 years of age, which is lower than in previous years. The median age at death for women is 81 compared to 75 among their male counterparts (Table 1, Figure 2). In other words, women who are residents of Tazewell County are more likely to live longer than their male counterparts. Additionally, whites have a higher cumulative median age at death of 77 compared to 60.5 years among their Black counterparts (Table 1, Figure 2). The median age at death for Asian, native American, or multi-racial backgrounds is 74 years old, which suggests that individuals of non-white racial or ethnic backgrounds have a lower life expectancy than their white counterparts. This racial group will be categorized as “Other Race” for the remainder of this report. White individuals accounted for 98.8% of all deaths in 2022, while Blacks/African American individuals accounted for 0.06% of deaths, individuals identifying as Hispanic or Latino accounted for 0.72% of deaths, and individuals of other racial backgrounds made up 0.72% of total deaths. The lower life expectancy for non-white racial and ethnic groups is not a significant disparity given the low amount of Black, Hispanic and Latino, and other races deaths in Tazewell County in 2022; however, it is a trend to keep an eye on in future mortality reports.

Table 1. All Causes – Count, Median Age, & Crude Death Rate (per 100,000) by Gender and Race, Tazewell County, Illinois, 2022.

	Count	Median Age	Crude Death Rate
Overall Population	1,657	77	1,250.6
Male	822	75	1,271.4
Female	835	81	1,230.8
White	1637	77	1,285.5
Male	810	77	1,308.2
Female	827	77	1,263.7
Black/African American	9	63.3	510.2
Other Race	11	74.1	256.5
Hispanic and Latino	12	78.5	354.5

Figure 1: Years of Potential Life Lost (YPLL) 2020-2022, Tazewell County, IL

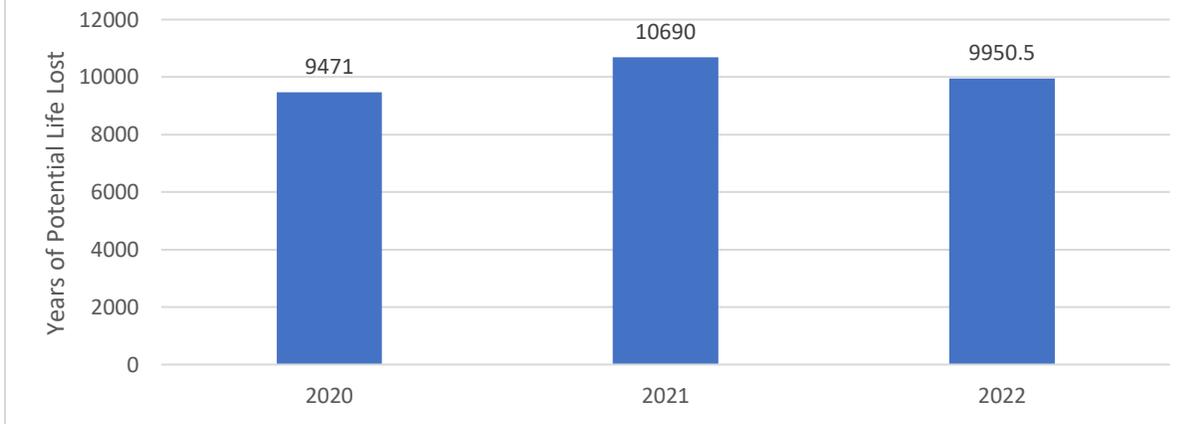
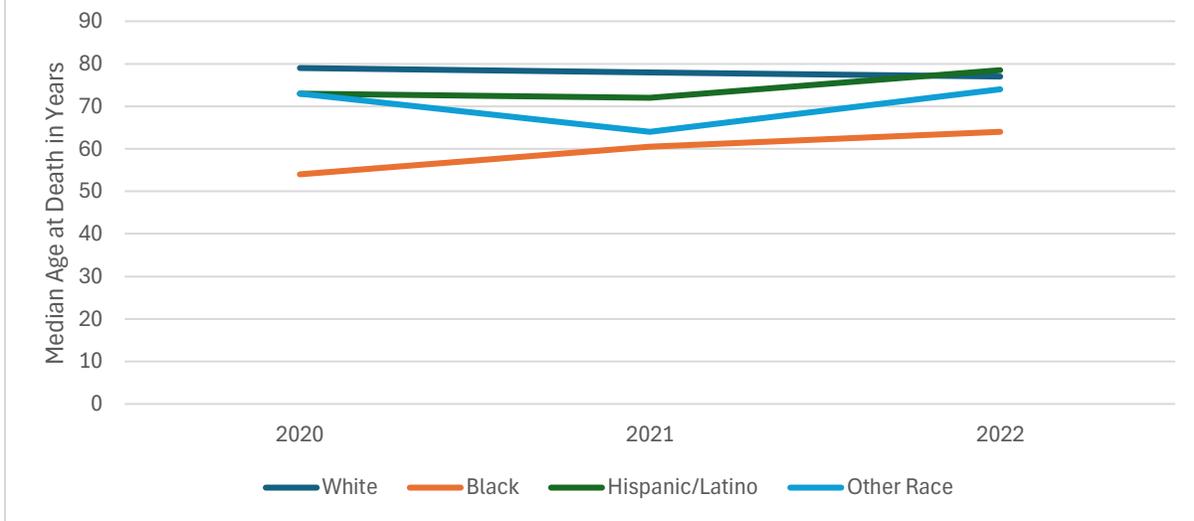


Figure 2: Median Age at Death by Race & Ethnicity, Tazewell County, IL 2020-2022



Mortality Disparities

Health disparities are defined by the Centers for Disease Control and Prevention (CDC) as a health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group, religion, socioeconomic status, gender, age, geographic location, or other characteristics historically linked to discrimination or exclusion.

Social determinants of health (SDOH) will also be discussed in this report. SDOH are conditions in the environment where people are born, live, work, play, learn, worship, and age that affect health and their quality of life. Some examples of these are poverty, education, and access to health care; all of which are linked to the development of chronic disease. Thus, the identification of SDOH in Tazewell County is

critical to inform public health efforts with the overarching goal of preventing unnecessary morbidity and mortality.

In this report, SDOH will be evaluated in the following ways: place, age, and gender. Analyses will not be available by race and ethnicity because of the small number of deaths in different racial and ethnic groups. Conducting such analyses with a small, non-significant sample size could misrepresent the actual impacts SDOH have on those groups.

Analyses by place or geography are traditionally done by zip code. Because of the small death counts in some Tazewell County zip codes, the county will be evaluated based on regions (Table 2).

Table 2. Regional Groupings of Tazewell County, IL

Region	Zip Codes included in the region	Number of Deaths in each region	Population
Northern Region	61610, 61611, 61571	619	52,854
Eastern Region	61550, 61755, 61568, 61733	310	28,489
Southern Region	61534, 61734, 61747, 61759, 61721	94	7,952
Western Region	61564, 61546, 61554, 61535	616	47,782

Figure 3. Map of Tazewell County with regions.

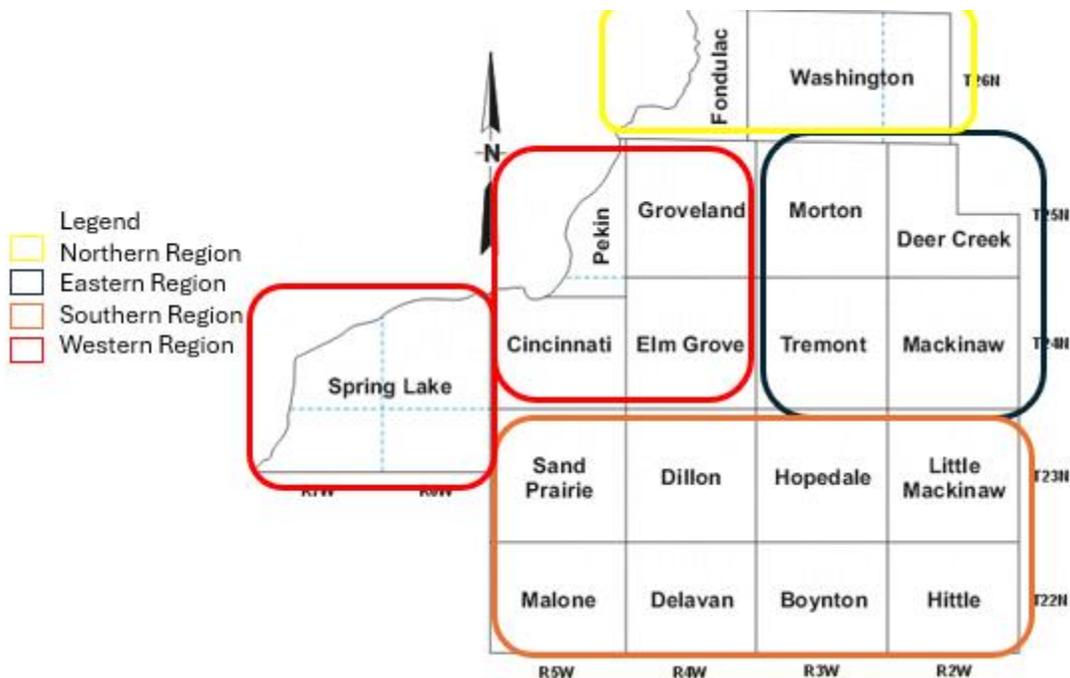


Table 3, Figure 4, and Figure 5 show the crude death rate by age for each region of Tazewell County. The northern and western regions of the county have higher mortality rates among individuals under 25 years, when compared to the rest of the county. The western region has the highest mortality rates among individuals ages 35-44, which could be attributed to the high number of accidental deaths that occurred in that region in 2022. Additionally, the northern and western regions of the county have similar crude death rates for the 45-54, 55-64, and 65-74 age groups. It is also worth noting that the northern and western regions of the county have significantly higher population counts than the eastern and southern regions.

Table 3. Age-Range Specific Crude Death Rates per 100,000 by Region, Tazewell County, IL, 2022

Age Range	Northern Region	Eastern Region	Southern Region	Western Region
<i>0-14</i>	82.0	53.8	0	99.8
<i>15-24</i>	46.2	35.9	0	72.8
<i>25-34</i>	46.9	127.96	122.2	170.3
<i>35-44</i>	219.0	133.6	108.2	349.8
<i>45-54</i>	430.2	201.5	103.4	399.5
<i>55-64</i>	935.97	866.9	797.9	993.6
<i>65-74</i>	2,676.4	1,656.5	1,849.7	2,601.8
<i>75 and older</i>	8341.2	7,297.7	7,875.9	9,192.3

Figure 4: Age Range-Specific Crude Death Rates by Region, Tazewell County, IL, 2022

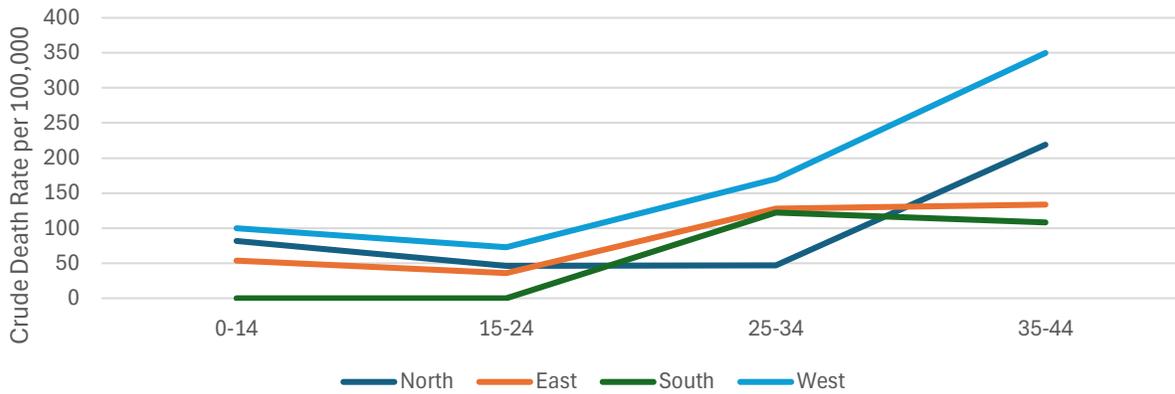


Figure 5: Age Range-Specific Crude Death Rates by Zip Code, Tazewell County, IL, 2022

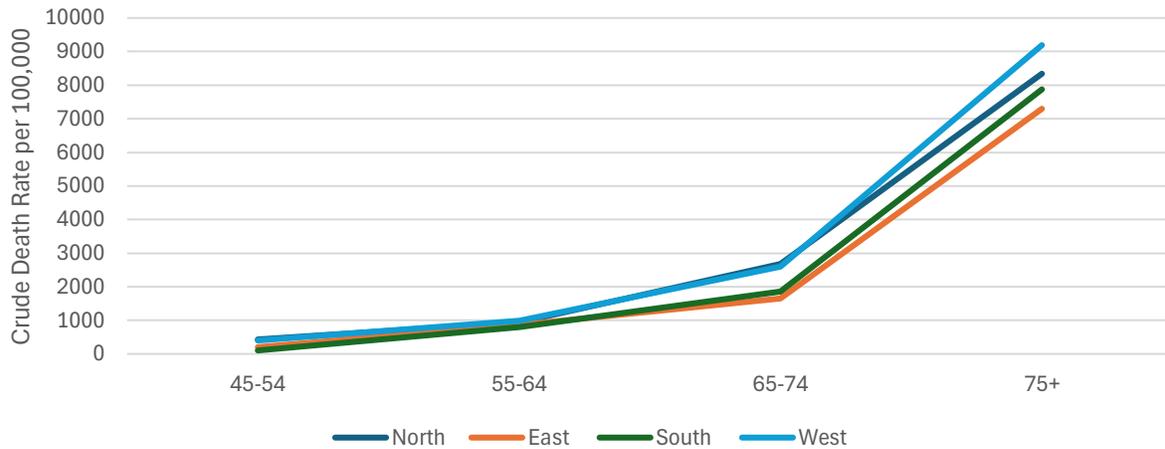
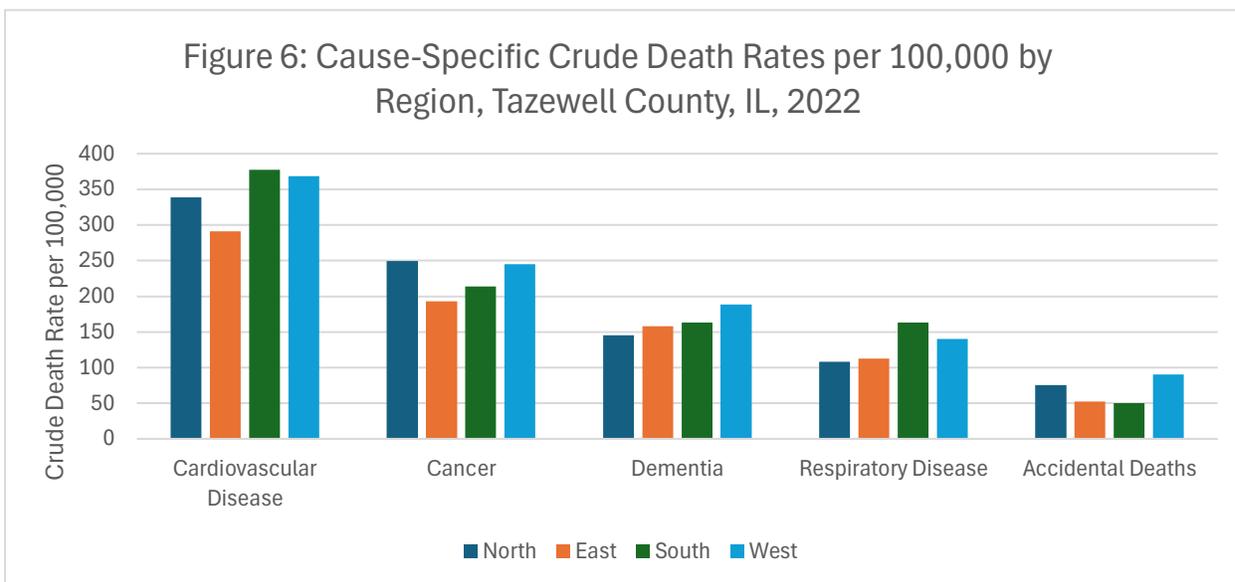


Table 4 and Figure 6 show the crude death rates for the five leading causes of death in Tazewell County by region. Cardiovascular disease and respiratory disease are most prevalent in the southern region, cancer is most prevalent in the northern region, and dementia and accidental deaths are highest in the western region.

Table 4. Cause-Specific Crude Death Rates per 100,000 by Region, Tazewell County, IL 2022

Cause of Death	Northern Region	Eastern Region	Southern Region	Western Region
<i>Cardiovascular Disease</i>	338.7	291.3	377.3	368.3
<i>Cancer</i>	249.7	193.1	213.8	244.9
<i>Dementia</i>	145.7	157.96	163.5	188.4
<i>Respiratory Disease</i>	107.8	112.3	163.5	140.2
<i>Accidental Deaths</i>	75.7	52.7	50.3	89.99

Figure 6: Cause-Specific Crude Death Rates per 100,000 by Region, Tazewell County, IL, 2022



Mortality by Leading Causes

Summary

The leading causes of death by count among Tazewell County residents in 2022 were heart disease, cancer, respiratory disease, accidental deaths, and dementia (Table 5). Specific leading causes of death by age range are provided in Table 6.

The causes of death outlined in Tables 5 and 6 are grouped based on ICD-10 codes. Cardiovascular disease (also called heart disease) includes conditions such as myocardial infarction (heart attack), coronary artery disease, peripheral vascular disease, congestive heart failure, stroke, and cardiac arrhythmias. Dementia includes dementia of all types including Alzheimer’s Disease, Lewy Body Dementia, and Parkinson’s Disease. The grouping of respiratory disease includes chronic lower respiratory conditions such as chronic obstructive pulmonary disease (COPD), emphysema, and acute conditions such as respiratory failure and pneumonia. Additionally, the grouping of accident/injury includes deaths relating to substance use (illicit substances, alcohol-related deaths, and prescription medication overdoses), motor vehicle accidents, and deaths directly related to trauma (i.e. falls, drownings, etc.)

The leading causes of death are similar to what they have been in previous years; however, COVID-19 related deaths have decreased in prevalence. Interestingly, cardiovascular disease, cancer, and respiratory disease related deaths are equally distributed by gender. Accidental deaths, dementia related deaths, deaths related to suicide, and deaths related to renal failure are not equally distributed by gender. Disparities by gender, age, or race/ethnicity will be identified further and discussed in the following sections.

Table 5. Leading Cause of Death – Count (%), Overall and by Gender, Tazewell County, IL, 2022

Leading Cause	Overall	Gender	
		Male	Female
All Deaths	1,657	822	835
Cardiovascular Disease	456 (27.5%)	229	227
Cancer	325 (19.6%)	160	165
Dementia	221 (13.3%)	67	154
Respiratory Disease	166 (10.0%)	83	83
Accident/Injury	103 (6.2%)	73	30
COVID-19	88 (5.3%)	52	36
Renal Failure	45 (2.72%)	30	15
Suicide	23 (1.39%)	19	4

Leading Cause of Death by Age

When stratified by age, the leading causes of death differ. The top four leading causes of death among Tazewell County residents between the ages of 15-34 in 2022 are motor vehicle accident, substance use related, cancer, and suicide. Deaths relating to substance use and motor vehicle accidents account for over half of the deaths in young people ages 15-34 in Tazewell County.

The leading cause of death among individuals ages 25-34 was substance use related; this definition includes all substances including alcohol, prescription medications, opioids, illicit drugs, etc. Additionally, about 1 in 5 deaths among individuals ages 25-34 were deaths by suicide. This illustrates the continued need for mental health care and suicide prevention efforts in Tazewell County.

Cancer and heart disease remain the leading causes of death among individuals 45 years of age and older. Respiratory disease and COVID-19 remain contributing causes of mortality among individuals between 55-74 years of age. As discussed above, this is likely an impact of the SARS-CoV-2 virus' evolution and continued severe impacts on individuals with comorbidities. Among individuals 75 years and older, dementia accounts for 18% of deaths. Compared to 2021, dementia related mortality has increased by 3%. The increase in prevalence of dementia and its subsequent mortality is an issue of public health significance and should continue to be monitored.

When comparing the leading causes of death by age from 2021 to 2022, it is worth noting that COVID-19 related mortality has decreased by at least 5% depending on the age bracket. An additional concern that is resulting in mortality among individuals 65 years and older is falls; falls accounted for 30 deaths in that age range.

Table 6. Leading Causes of Death (% of total deaths within age category) by Age Range, Tazewell County, IL, 2022

RANK	Age Range							
	0-14	15-24	25-34	35-44	45-54	55-64	65-74	75+
1	Congenital Abnormalities & Prematurity (57.9)	Motor Vehicle Accident (37.5)	Substance Use Related (33.3)	Substance Use Related (37.2)	Cancer (20)	Cancer (29.1)	Cancer (31.8)	Heart Disease (32.1)
2	Unsafe Sleep Environment (10.5)	Cancer (12.5)	Heart Disease (27.8)	Cancer (9.3)	Heart Disease (15)	Heart Disease (25.7)	Heart Disease (22)	Dementia (18.4)
3	Motor Vehicle Accident (10.5)	Suicide (12.5)	Suicide (22.2)	Motor Vehicle Accident (4.7)	Suicide (11.7)	Lung Disease (8.6)	Lung Disease (11.1)	Cancer (14.2)
4	Suicide (10.5)	Heart Disease (12.5)	Cancer (5.6)	Heart Disease (4.7)	COVID-19 (10)	COVID-19 (5.1)	Dementia (7.6)	Lung Disease (10.8)
5			Lung Disease (5.6)	Lung Disease (4.7)	Substance Use Related (6.7)	Dementia (3.4)	COVID-19 (4.9)	COVID-19 (5.3)
6				Suicide (2.3)		Substance Use Related (3.4)	Falls (2.2)	Renal Disease (2.8)
7								Falls (2.2)

Contributing Factors

Contributing factors are conditions that may directly increase the risk for death and are obtained from individual death certificates. Table 7 provides information on 6 different factors that contributed to deaths of Tazewell County residents in 2022. The column labeled COPD consists of cases where COPD was not the primary cause of death, but played a role, because those cases would not have been included in the deaths due to respiratory disease.

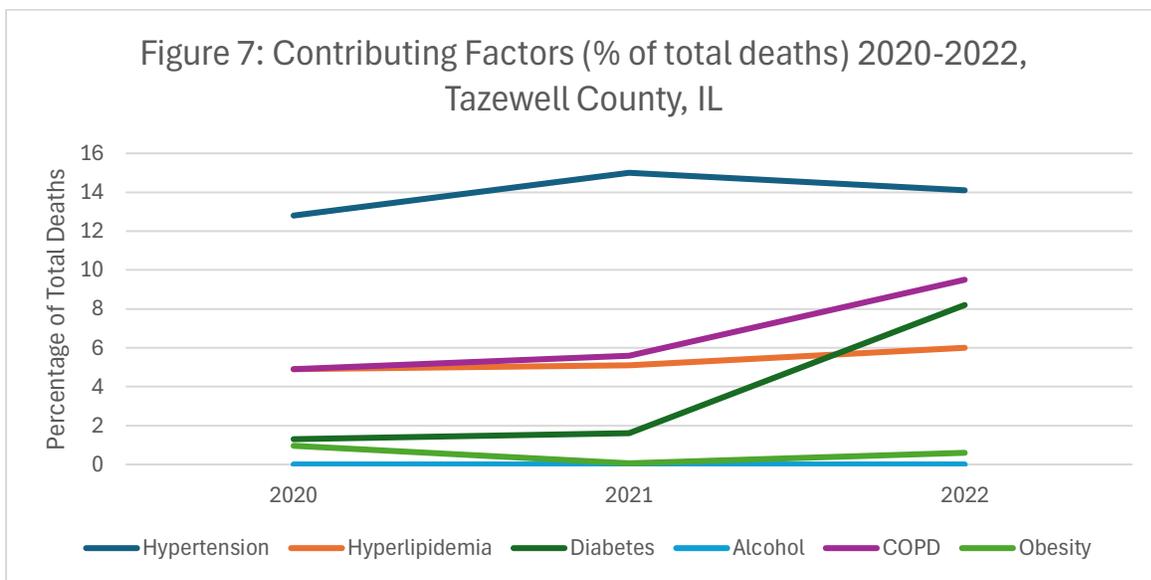
Hypertension, also known as high blood pressure, and hyperlipidemia, also known as high cholesterol, are known risk factors for heart disease and cancer. Hypertension was the most prevalent risk factor found in individuals over the age of 45. Like 2021’s mortality report, this correlates with the increase in heart disease and cancer-related deaths in older age groups. COPD was the second most prevalent contributing factor. Studies show that individuals with COPD are more susceptible to viral respiratory infections and viral-induced exacerbations of COPD commonly caused by influenza, rhinoviruses (common cold), and SARS-CoV-2.¹ Further, the incidence of hospitalization and disease severity in patients with a known chronic disease of the respiratory tract (i.e. emphysema, COPD) are much higher in patients with COVID-

19 than with other seasonal respiratory viruses.¹ This serves as a probable explanation for the increase in deaths involving COPD. The prevalence of Type 2 Diabetes has also increased compared to previous years. According to the Centers for Disease Control and Prevention (CDC), the United States has experienced a 3% increase in type 2 diabetes prevalence since 2004; given the data in Table 7, Tazewell County mortality data also reflects that increase.² No deaths in 2022 had alcohol as a contributing factor.

From a public health perspective, this data highlights the importance of preventing the development of high blood pressure and high cholesterol, as well as managing the conditions with medication and lifestyle changes as necessary.

Table 7. Contributing Factors – Count (%), Overall, Gender, Race, and Age (per 100,000)
Tazewell County, IL 2022

	Hypertension	Hyperlipidemia	Diabetes	Alcohol	COPD	Obesity
Overall	233	100	136	0	157	10
Percentage of total deaths	14.1%	6.0%	8.2%	0	9.5%	0.6%
Male	124	58	75	0	80	6
Female	109	42	61	0	77	4
Age Group						
0-14	0	0	0	0	0	0
15-24	0	0	0	0	0	0
25-34	0	0	0	0	0	0
35-44	3	0	3	0	1	1
45-54	8	3	6	0	4	3
55-64	22	9	13	0	16	3
65-74	53	23	37	0	41	0
75 and older	147	65	77	0	95	3



Cardiovascular Disease

Cardiovascular Disease was the leading cause of death in 2022 accounting for 27.5% of deaths among Tazewell County residents. The median age at death was 81 years, which is 4 years older than the overall median age at death for Tazewell County residents. The crude death rate was 345.5 deaths per 100,000 (Table 8). Heart disease deaths are evenly distributed by gender. Table 8 also shows the prevalence of heart disease by age group; noticeably, heart disease-related mortality is most prevalent in individuals over age 65 years. It is important to correlate the prevalence of heart disease with the contributing factors discussed in the previous section (Figure 7, Table 7). As risk factors such as hypertension, hyperlipidemia, diabetes, obesity, and COPD become more prevalent in younger age groups, the crude death rates for cardiovascular disease will become increased in the younger age brackets.³

Table 8. Cardiovascular Disease – Count, Median Age, & Crude Death Rate (per 100,000) by Gender & Age. Tazewell County, IL, 2022.

	Count	Median Age	Crude Death Rate
Overall Population	456	81	345.5
Male	229	83	354.2
Female	227	78	334.6
Age Group			
0-14	7		28.24
15-24	0		0
25-34	2		12.91
35-44	2		11.53
45-54	9		53.98
55-64	45		247.14
65-74	81		574.75
75 and older	310		2,934.2

Table 9 shows the types of cardiovascular disease that are the most prevalent in the deaths of Tazewell County residents in 2022. Congestive Heart Failure (CHF) has numerous types, which are all included in this definition; CHF is defined by the American Heart Association as a chronic, progressive condition in which the heart muscle is unable to pump enough blood to meet the body's needs for blood and oxygen.⁴ CHF is the third most common type of heart disease deaths in 2022. The second most prevalent type of heart disease in 2022 was coronary artery disease (CAD), which accounted for 18.85% of heart disease deaths. CAD occurs when plaque (a combination of fat, cholesterol, calcium, and other substances in the blood) builds up in the arteries of the heart; this reduces the amount of oxygen-rich blood getting to the heart.⁴ CAD is the precursor to myocardial infarction (MI), also known as a heart attack. Thus, it is interesting that in Tazewell County, the prevalence of both CAD and MI deaths are similar.

Table 9 also includes strokes (also known as cerebrovascular accidents) and cerebrovascular disease (CVD), which is the precursor to a stroke. Strokes and CVD cause impact on the functioning of the nervous system; however, stroke and CVD occur because of disease in the cardiovascular system that results in the improper delivery of oxygen-rich blood to the brain. Thus, they are included in this section. Additionally, stroke and CVD are analogous to MI and CAD in their pathology; the differentiating piece is the organ impacted. Stroke and CVD impact the brain, whereas MI and CAD impact the heart.

Additionally, the contributing factors of stroke and CVD are identical to heart disease and are listed in Table 7. Stroke and CVD are the most prevalent cause of cardiovascular disease related death in Tazewell County in 2022.

Arrhythmias, or irregular heartbeat, account for almost 6% of cardiovascular disease related deaths. Interestingly, atrial fibrillation is the most common arrhythmia listed on death certificates (89%). Atrial fibrillation is documented to cause an irregular and rapid heart rhythm that can result in blood clots. Further, untreated atrial fibrillation doubles an individual’s risk of heart-related death and is associated with a fivefold increased risk of stroke.⁴ Thus, delineating the type of arrhythmia and ensuring proper management of it is relevant to reducing cardiovascular disease mortality.

Table 9. Leading Causes of Cardiovascular Disease Deaths – Count & Percent of Deaths, Tazewell County, IL, 2022

Type of Cardiovascular Disease	Count	Percent of Cardiovascular Disease Deaths
<i>Congestive Heart Failure (CHF)</i>	84	18.4%
<i>Myocardial Infarction (MI)</i>	79	17.3%
<i>Coronary Artery Disease (CAD)</i>	86	18.85%
<i>Stroke/Cerebral Vascular Disease</i>	103	22.6%
<i>Arrhythmia</i>	27	5.92%

Cancer

Cancer was the second leading cause of death in 2022; this accounted for 19.6% of deaths among Tazewell residents. The median age at death was 73 years, which is 4 years younger than the median age at death for all deaths in 2023. Therefore, a cancer diagnosis lowers Tazewell County residents’ life expectancy. Females make up 50.8% of cancer deaths and males make up the remaining 49.2% (Table 10).

Table 10. Cancer – Count, Median Age, & Crude Death Rate (per 100,000) by Gender & Age. Tazewell County, IL, 2022.

	Count	Median Age	Crude Death Rate
Overall Population	325	73	246.2
Male	160	73	247.5
Female	165	72	243.2
Age Group			
0-14	2		8.07
15-24	1		6.75
25-34	1		6.45
35-44	4		23.1
45-54	12		71.97
55-64	51		280.1
65-74	117		830.2
75 and older	137		1,296.7

Table 11 illustrates the different types of cancer that contributed to the total number of cancer deaths. Lung cancer was the leading type of cancer with 65 deaths (20.0% of total cancer deaths). Lung cancer

causes a significantly higher amount of cancer deaths when compared to its counterparts. Lung cancer, breast cancer, pancreatic cancer, and colorectal cancer make up the top 4 causes of cancer death, respectively. Additionally, the category of female reproductive tract includes cervical, ovarian, uterine, endometrium, and fallopian tube cancers.

Table 11. Cancer – Count & Percent of Cancer Deaths Tazewell County, IL, 2022.

Cancer Type	Count	Percent of Cancer Deaths
<i>Lung</i>	65	20.0%
<i>Breast</i>	31	9.54%
<i>Colorectal</i>	23	7.08%
<i>Female Reproductive Tract</i>	16	4.92%
<i>Pancreas</i>	27	8.31%
<i>Prostate</i>	16	4.92%

Dementia

Dementia accounted for 13.3% of Tazewell County deaths in 2022. Dementia is evenly distributed among the geographic regions of Tazewell County. Dementia is most common among the 75 and older age group, as expected. The gender disparity among dementia deaths in Tazewell County is interesting; women are almost 2.3 times more likely to die of dementia when compared to their male counterparts. Studies surrounding dementia development have identified a wide variety of risk factors for dementia and a cumulative effect with increasing numbers of risk factors.⁵ *Anstey et al* conducted a population based cohort study looking at the difference in gender and the likelihood to develop memory decline; the study found that depression, cognitive and physical activity were associated with memory change in older women compared to their male counterparts.⁵ Further, the onset of midlife hypertension was also associated with greater memory decline in women.⁵ These could be potential explanations for the gender disparity found in dementia prevalence in Tazewell County. Additionally, women in Tazewell County have a longer life expectancy than their male counterparts; thus, a valid hypothesis or potential explanation could be that females live longer than males resulting in a higher incidence of dementia.

Table 12. Dementia – Count, Median Age, & Crude Death Rate (per 100,000) by Gender & Age. Tazewell County, IL, 2022.

	Count	Median Age	Crude Death Rate
Overall Population	221	84	167.4
Male	67	81	103.6
Female	154	85	227.0
Age Group			
0-14	--		--
15-24	--		--
25-34	2		12.91
35-44	--		--
45-54	2		11.99
55-64	6		32.95
65-74	28		198.7
75 and older	178		1684.8

Respiratory Disease

The category of respiratory disease includes chronic lower respiratory conditions such as chronic obstructive pulmonary disease (COPD), emphysema, and acute conditions such as respiratory failure and pneumonia. Respiratory disease accounted for 166 deaths in 2022; deaths are distributed evenly among males and females (Table 13).

The number of deaths caused by respiratory disease has increased by 19.4% since 2021. In 2021, deaths related to respiratory disease were more common in men than women; in 2022, the deaths are evenly distributed by gender. A potential contributing factor to the increase in respiratory deaths in 2022 could be the large and lengthy respiratory illness season that impacted Central Illinois from October 2022 to March 2023. This trend will be important to monitor in future years, given the increased morbidity associated with individuals with chronic respiratory diseases and infections such as COVID-19, respiratory syncytial virus, and influenza.

The leading cause of respiratory death is Chronic Obstructive Pulmonary Disease (COPD) (Table 14). COPD accounts for 54% of the deaths related to respiratory disease in Tazewell County in 2022. Pneumonia accounts for 17.5% of respiratory deaths.

Table 13. Respiratory Disease – Count, Median Age, & Crude Death Rate (per 100,000) by Gender & Age. Tazewell County, IL, 2022.

	Count	Median Age	Crude Death Rate
Overall Population	166	79	125.8
Male	83	75	128.4
Female	83	81	122.3
Age Group			
0-14	1		4.03
15-24	--		--
25-34	1		12.69
35-44	2		22.41
45-54	2		23.89
55-64	15		168.96
65-74	41		616.4
75 and older	104		2,425.9

Table 14. Leading Causes of Respiratory Disease Deaths– Count & Percent of Respiratory Disease Deaths Tazewell County, IL, 2022.

Respiratory Disease Type	Count	Percent of Respiratory Disease Deaths
<i>COPD</i>	87	54.4%
<i>Pneumonia</i>	28	17.5%
<i>Interstitial Lung Disease</i>	5	3.13%
<i>Respiratory Failure</i>	10	6.3%
<i>Asthma Exacerbation</i>	1	0.63%

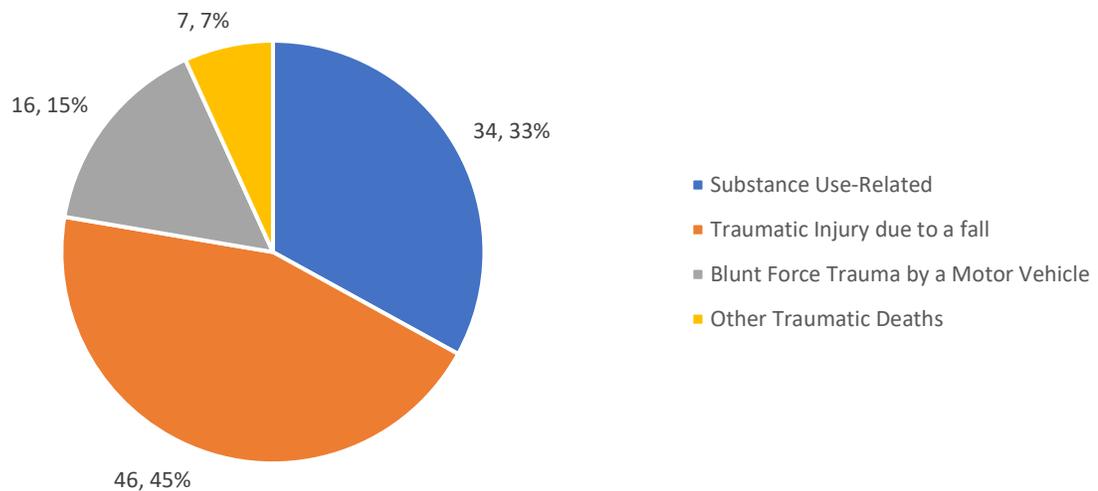
Accidental Deaths

Accidental deaths include numerous subcategories including motor vehicle accidents, traumatic incidents resulting in death, and substance use-related deaths, provided there was no intent to do self-harm or cause death of another person. Table 15 shows the count, median age, and crude death rate (per 100,000) for accidental deaths in 2022. The types of death will be divided further into substance use-related deaths and deaths related to traumatic injury.

Table 15. Accidental Deaths – Count, Median Age, & Crude Death Rate (per 100,000) by Gender & Age. Tazewell County, IL, 2022.

	Count	Median Age	Crude Death Rate
Overall Population	103	60	78.03
Male	73	55	112.9
Female	30	79.5	44.2
Age Group			
0-14	5		20.2
15-24	4		26.9
25-34	6		38.7
35-44	20		115.3
45-54	8		47.98
55-64	14		76.9
65-74	18		127.7
75 and older	28		265.0

Figure 8. Count (%) Accidental Deaths by Type, Tazewell County, IL 2022



Substance Use-Related Deaths

In 2022, Tazewell County reported 34 unintentional substance use-related deaths. This is a 5.6% decrease from 36 deaths in 2021. Most of the substance use related deaths in 2022 were among males (85%) and 15% were females. Additionally, all Tazewell County overdose deaths in 2022 involved individuals who identified racially and ethnically as Non-Hispanic/Latino and White. The crude death rate for all substances and all age groups for 2022 was 25.76 per 100,000 (Table 16). Deaths related to substance use are concentrated among individuals ages 25-74 years; the average age at death was 43.7 years. This correlates with the crude rate of the 35-44 age range being the highest of all ages groups in Tazewell County. Further, in Table 8, substance use related deaths is the leading cause of death for individuals 25-44 years.

Table 16. Age Range-Specific Overdose Death Counts & Crude Rates (CR) per 100,000 for all Substances by Gender, Tazewell County, IL 2022

Age Range	Total		Male		Female	
	Count	CR	Count	CR	Count	CR
<i>Overall</i>	34	25.76	29	44.72	5	7.69
<i>0-14</i>	0	--	--	--	--	--
<i>15-24</i>	0	--	--	--	--	--
<i>25-34</i>	6	76.2	4	51.0	2	26.7
<i>35-44</i>	16	179.3	15	168.1	1	11.6
<i>45-54</i>	5	59.7	3	35.8	2	25.3
<i>55-64</i>	5	56.3	5	58.5	0	--
<i>65-74</i>	2	30.1	2	30.1	0	--
<i>75 and older</i>	0	--	--	--	--	--

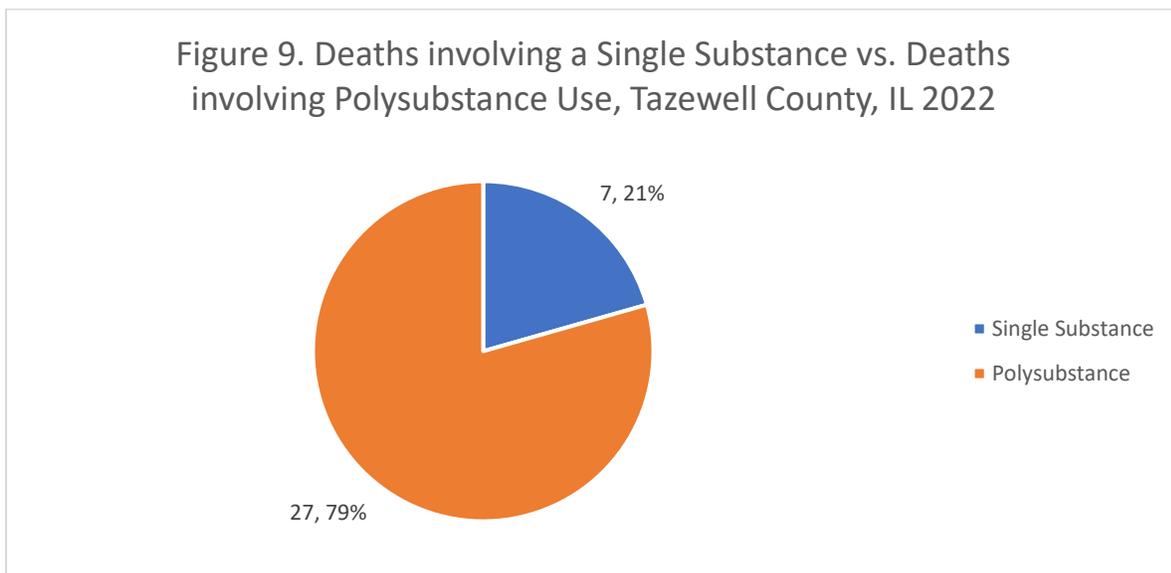
Table 17 illustrates the different substances and mixtures of substances that were involved in deaths in 2022. Fentanyl is a synthetic opioid that is manufactured for the legal treatment of pain; it is also produced illicitly and is sold through illegal drug markets for its heroin-like effect. Fentanyl is often an adulterant or mixed in with other substances with or without the user's knowledge. Fentanyl is similar to morphine but 50-100 times more potent, hence its high prevalence in substance use-related deaths.

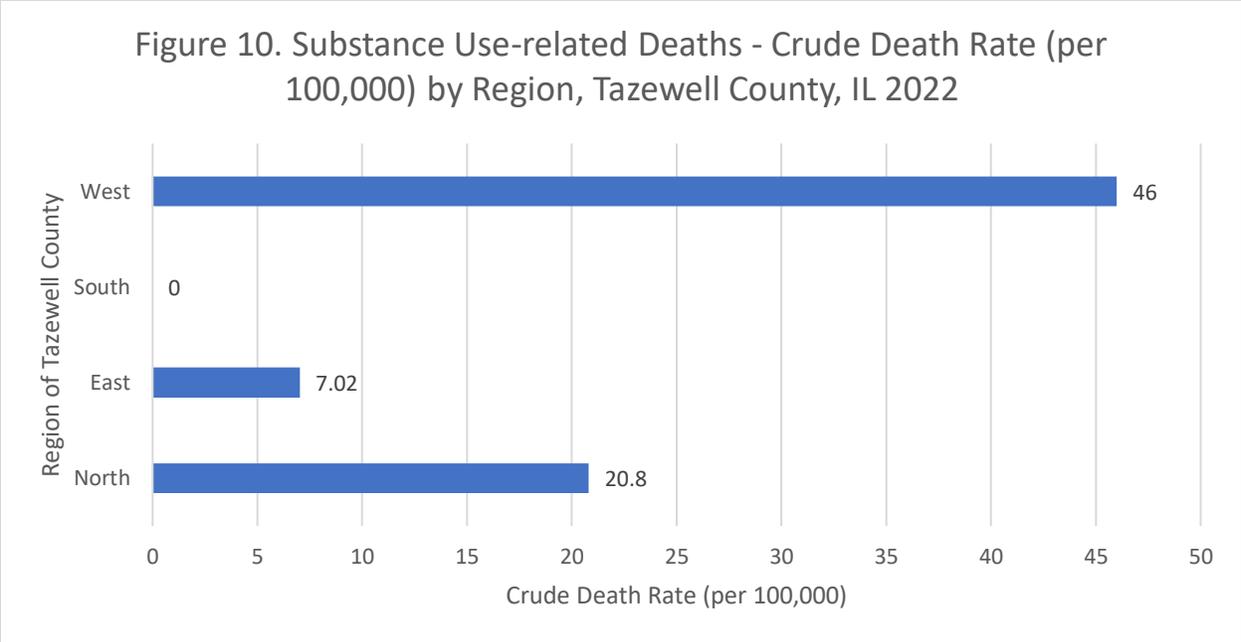
Xylazine is a medication commonly used in veterinary medicine to tranquilize or sedate animals. Xylazine is not approved for use in humans and is increasing in the illicit drug supply in the United States. Xylazine is life-threatening to humans when paired with opioids like fentanyl because xylazine will not respond to an opioid antagonist like naloxone; thus, the sedating effect, respiratory depression, and depression of the central nervous system cannot be reversed.

Table 17. Count & Crude Rate (per 100,000) of Substance Use-related deaths by substance type, Tazewell County, IL 2022

	Count	Crude Rate (per 100,000)
Fentanyl-related*	16	12.12
Xylazine-related*	2	1.5
Other Opioid (i.e. heroin, hydrocodone) *	8	6.1
Methamphetamine-related*	16	12.1
Cocaine-related*	6	4.5
Alcohol-involved*	3	2.3
*Denotes that each of these substance categories overlaps		

Figure 9 shows the difference between individuals dying of an overdose that relates to a single substance versus those who die of an overdose relating to multiple substances, which is also referred to as polysubstance use. Polysubstance use is involved in most Tazewell County substance use-related deaths (79%). Further, of the deaths related to poly-substance use, 51.7% of them involved fentanyl. The high number of deaths related to polysubstance use is likely related to the high number of adulterants present in the drug supply of Central Illinois. This is further supported by the 15 deaths that involved fentanyl and cocaine; fentanyl and methamphetamines; heroin, fentanyl, and methamphetamines; or fentanyl, xylazine, and methamphetamines. Each of these groupings involve an illicit substance (methamphetamines or cocaine) that would not normally have fentanyl or xylazine present in it. Figure 10 shows the crude death rate of substance use related deaths by region.





Traumatic Deaths

Traumatic deaths can be divided into numerous categories based on the mechanism involved; for the sake of this report, traumatic deaths will be categorized into blunt force trauma caused by a motor vehicle, traumatic injuries related to a fall, and traumatic brain injuries. Each one of these categories has been evaluated in the following tables and figures for any gender and age disparities. Traumatic injuries related to a fall account for 44.7% of accident deaths of Tazewell County residents in 2022. Blunt force trauma caused by a motor vehicle makes up 15.5% and traumatic brain injury was 2.9% of accidental deaths among Tazewell County residents in 2022.

A gender disparity is present among traumatic deaths related to motor vehicle accidents; males are more likely to be involved in and die in a motor vehicle collision than their female counterparts in Tazewell County. Interestingly, the most current study looking at motor vehicle accident deaths in the United States concludes that female vehicle occupants are at a 20% higher risk of moderate and series injuries compared to males when controlling for a variety of factors.⁶ Comparatively, a similar study that looked at all injury mortality within the United States from 1981-2007 concludes that boys and men are more likely than girls and women to die of an injury.⁷

Table 18 also shows a disparity related to age; traumatic injuries related to a fall are more likely to occur and result in death in individuals 65 years and older. In 2022, falls in individuals over age 65 who live in Tazewell County resulted in 2,909 emergency department visits. The prevalence of fall related emergency department visits has increased significantly, by 32%, since 2020.⁸ The relationship between falls resulting in emergency department visits and falls as a cause of death will need to be monitored in future mortality reports.

Table 18. Count of Traumatic Deaths by Type, Gender, & Age Group, Tazewell County, IL 2022

	Blunt Force Trauma by a Motor Vehicle	Traumatic Injuries Related to a Fall	Traumatic Brain Injuries
Overall	16	46	3
Gender			
<i>Male</i>	11	25	2
<i>Female</i>	5	21	1
Age Group			
0-14	2	3	--
15-24	2	1	--
25-34	0	--	--
35-44	3	--	--
45-54	1	2	1
55-64	3	4	--
65-74	2	10	1
75 and older	3	21	1

Suicide Deaths in Tazewell County

In 2022, there were 18 suicide deaths among Tazewell County residents. This is a 5.3% decrease from 19 deaths the previous year (2021). Among the 18 suicide deaths, 15 (83.3%) were male and 3 (16.7%) were female. All individuals who died by suicide in Tazewell County in 2022 identified as Non-Hispanic/Latino and white. The median age at death due to suicide was 45.5 years. Eleven deaths (61.1%) were by the method of firearms.

The most affected were those aged 25-34 and 45-54 years (Table 19). Figure 11 illustrates the gender disparity seen in Tazewell County relating to suicide; among all age groups, males are more likely to die by suicide than their female counterparts.

Table 19. Count, Median Age, & Crude Death Rates for Suicide Deaths by Gender and Age, Tazewell County, IL 2022

	Count	Median Age	Crude Death Rate
Overall Population	18	44.5	13.6
Male	15	45	23.1
Female	3	51	4.6
Age Group			
0-14	2		8.1
15-24	1		6.75
25-34	4		25.8
35-44	1		5.77
45-54	7		41.98
55-64	1		5.5
65-74	0		--
75 and older	2		18.93

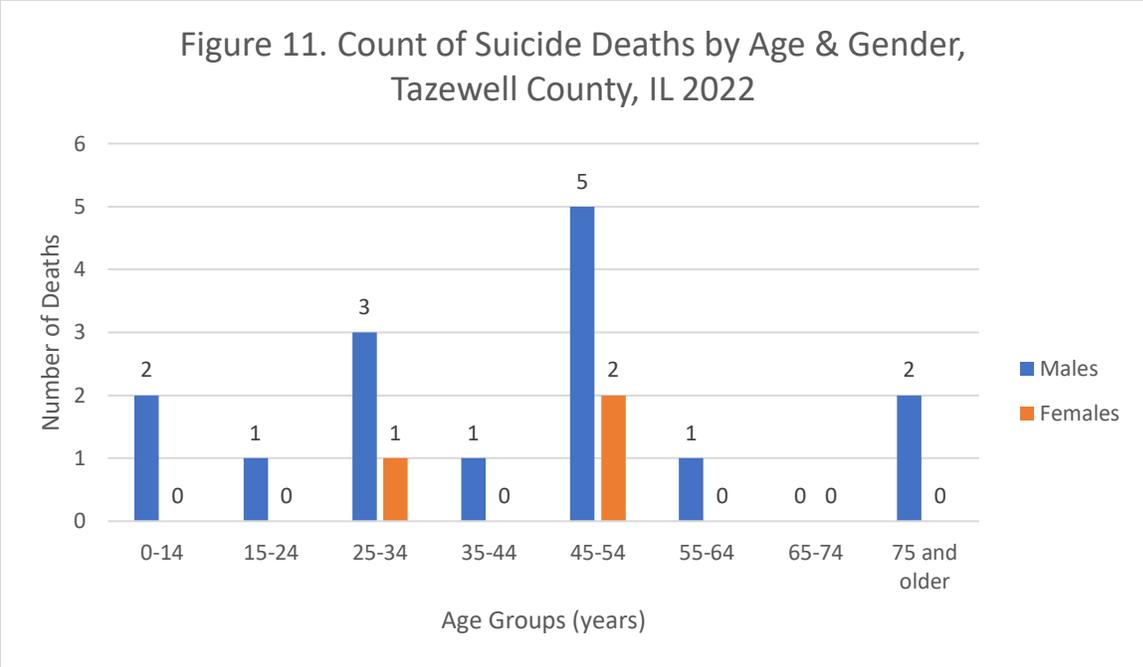
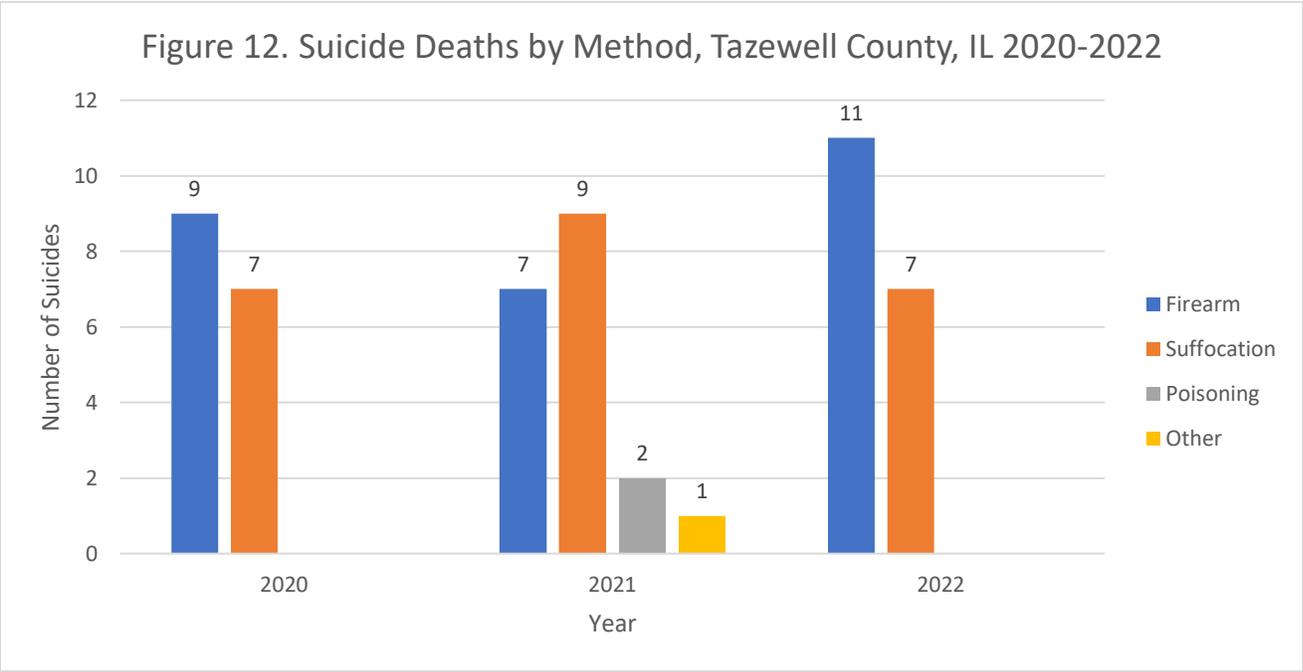
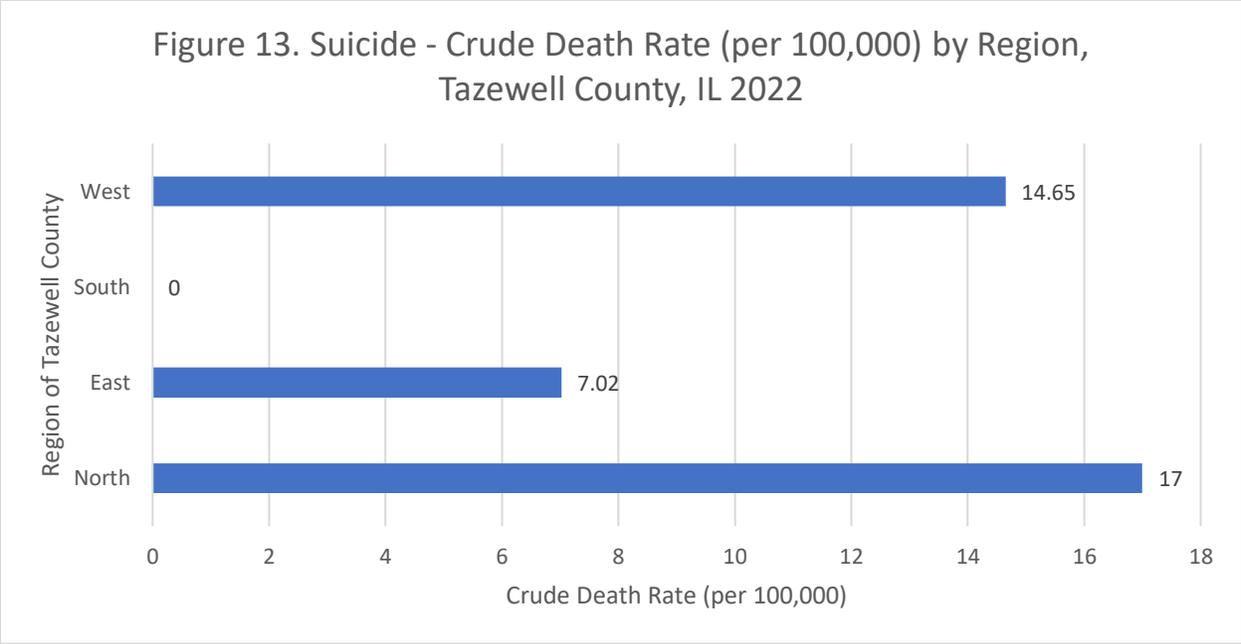


Figure 12 shows the methods of suicide over time. The number of deaths by suicide in Tazewell County has increased slightly from 16 deaths in 2020 to 18 in 2022. Suicides involving firearms were the most common method in 2022 (61.1%) and suffocation accounted for 38.9%.



In evaluating disparities, geography should also be accounted for. Figure 13 shows the crude death rates for suicide by region of Tazewell County. The northern region of the county had the highest suicide rate (17.0 per 100,000) and the Western region of the county had the second highest (14.65 per 100,000).



Conclusion

This concludes the 2022 Tazewell County Mortality Report. This report is meant to inform the community regarding the leading causes of death and contributing factors; however, TCHD hopes that it might also motivate readers to further evaluate the health conditions that are impacting the community and any inequalities that may be contributing to unnecessary mortality. Research shows that social determinants of health such as economic resources, occupation, education, and racial/ethnic groups prove to be accurate predictors of health status and longevity. Inequities in these social and economic factors can contribute to long-term stress, difficulty in accessing the health care systems and consequently reduce health and cause premature mortality. Any disadvantages should be a priority for action to reduce unnecessary mortality and improve the overall well-being of our community.

Any questions or requests for additional information may be sent to:

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Data Sources

Tazewell County Mortality Data:

This report represents information on the causes of death among Tazewell County residents as compiled by the Illinois Department of Public Health Vital Records Division. Classification and coding of the causes of death utilize the International Classification of Diseases Version 10 (ICD-10).

Population Data:

Crude death rates were calculated using population estimates from the U.S. Census Bureau's 2020-2025 American Community 5-Year estimates. Information includes estimates on total population, gender, race, and age groups for Tazewell County, Illinois, United States and specific zip codes. Age adjusted rates were calculated using the year 2000 standard.

Limitations:

Raw death data analyzed for the purpose of this report is based on information from a decedent's death certificate. The death certificate is compiled by the coroner and the funeral directors based on information provided by physicians. The information included on the death certificate is dependent on known medical conditions, history of illness, risk factors, and professional discretion.

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