

Summit County Public Health & Alzheimer's Association

Alzheimer's Disease in Summit County Vital Statistics Brief: June 2018

The *Population Health Vital Statistics Data Brief* series was created to provide regular updates to the 2016 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)923-4981
www.scph.org

Alzheimer's Association • Greater East Ohio Area Chapter
70 W. Streetsboro St., Ste. 201, Hudson, Ohio 44236 • (330)650-0552
www.alz.org/eastohio



Introduction

This brief is the first of its kind to be released by Summit County in collaboration with the Alzheimer's Association. Its purpose is to provide the residents of Summit County with more localized Alzheimer's dementia information, and to increase awareness regarding a disease that so prevalent in our country and community.

For those interested in obtaining more detailed statistics on Alzheimer's dementia deaths and other deaths in Summit County, please visit www.scph.org/dashboards. At this site visitors can access our interactive Death Data Dashboard, which allows users to design customized graphics and tables for their own use.

For those interested in learning more about Alzheimer's dementia and statistics for the state and country, please visit www.alz.org/facts. Additionally, if you, a loved one, or someone you know needs help or further information regarding Alzheimer's disease please call the Alzheimer's Association's free 24/7 helpline at 1.800.272.3900.

Background

Alzheimer's disease is a degenerative brain disease, and the most common cause of dementia. Every 65 seconds someone in the United States develops Alzheimer's disease. It is the 6th leading cause of death in the United States, and 1 in 3 seniors die with Alzheimer's dementia, killing more than breast cancer and prostate cancer combined. In 2018, there are approximately 220,000 Ohioans living with Alzheimer's or other forms of dementia. This accounts for a 13.6% increase in residents with Alzheimer's from 2017. Additionally, Alzheimer's disease is the 6th leading cause of death in Ohio.²

Dementia is a group of symptoms that has a number of causes. In the simplest terms, dementia occurs due to nerve cells in the brain being damaged or destroyed. Its features include complications with memory, language, problem solving and other cognitive skills that affect a person's ability to carry out

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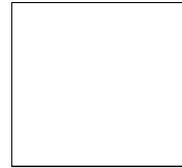
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*Alzheimer's is a form of dementia, and is the most common cause. Therefore, the terms Alzheimer's, dementia, and Alzheimer's dementia will be used interchangeably throughout this report.

*Data in this report includes deaths with the primary underlying cause of death listed as a form of Alzheimer's disease or dementia and include the following:

- Alzheimer disease with late onset
- Alzheimer disease unspecified
- Delirium superimposed on dementia
- Unspecified dementia
- Vascular dementia unspecified

daily actions. In Alzheimer’s dementia, neurons in other parts of the brain are eventually damaged or destroyed as well, affecting an individual’s capability to carry out basic bodily functions such as walking or swallowing.



Diagnosis of Alzheimer’s dementia encompasses a multitude of approaches that include:

- Conducting cognitive tests and physical examinations
- Conducting brain imaging and blood tests to rule out other causes of dementia
- Obtaining the family and medical history of an individual
- Asking friends and family to provide any information about cognitive and behavioral changes from baseline²

Who Might Be At Risk?

Age

Age is the most significant risk factor for Alzheimer’s dementia with an increased risk of developing the disease as age increases. The 2015 Behavioral Risk Factor Surveillance System (BRFSS) identified that 10.7% of Ohioans aged 45 and older were experiencing subjective cognitive decline (SCD), an increase in confusion or

| Summit County Residents 65 Years of Age or Older in Summit County by Cluster | | | |
|--|------------------|----------------------|---------------|
| Cluster | Total Population | Estimate 65 or Older | % 65 or Older |
| Akron Central | 16,277 | 1296 | 8.0% |
| Akron North | 19,070 | 2521 | 13.2% |
| Akron Northwest | 28,954 | 4876 | 16.8% |
| Akron South | 24,007 | 2585 | 10.8% |
| Akron Southeast | 50,950 | 6807 | 13.4% |
| Akron Southwest | 27,638 | 3462 | 12.5% |
| Akron West | 28,648 | 4953 | 17.3% |
| Barberton | 26,474 | 4897 | 18.5% |
| Copley/Bath/Fairlawn | 35,733 | 7061 | 19.8% |
| Coventry/Green | 35,733 | 7061 | 19.8% |
| Cuyahoga Falls | 50,473 | 8082 | 16.0% |
| Franklin | 15,629 | 3037 | 19.4% |
| Hudson | 22,282 | 3469 | 15.6% |
| Munroe Falls/Tallmadge | 22,341 | 4723 | 21.1% |
| Norton | 12,044 | 2022 | 16.8% |
| Richfield/Boston | 8,761 | 1694 | 19.3% |
| Sagamore Hills/Northfield/Macedonia | 33,282 | 6095 | 18.3% |
| Springfield/Lakemore | 20,040 | 3692 | 18.4% |
| Stow/Silver Lake | 37,198 | 6238 | 16.8% |
| Twinsburg | 24,388 | 3813 | 15.6% |

Table 1: Residents 65 Years of Age or Older in Summit County by Cluster
Source: 2012-2016 American Community Survey 5-Year Estimates

Figure 1: Summit County Residents 65 Years of Age or Older by Cluster
Source: 2012-2016 American Community Survey 5-Year Estimates, SCPH calculations

worsening memory loss that is increasing in frequency. SCD is increasingly recognized as a strong predictor of future dementia risk. The vast majority of Alzheimer’s dementia cases occur after the age of 65. In fact, 1 in 10 people age 65 and older has dementia in the United States.²

In Summit County, the distribution of residents age 65 and older vary throughout the county with the smallest proportion living in the Akron Central cluster and the highest proportion living in the Munroe

Falls/Tallmadge cluster. Not only are the older age groups more affected by Alzheimer's dementia, but they are also dying from the disease more often. A five-year analysis of Alzheimer's death in Summit County shows that the age group 85 years and older had the highest percentage of deaths with a median age of 88. Although age is the greatest risk factor for developing Alzheimer's disease, this disease should not be viewed as a natural part of aging.

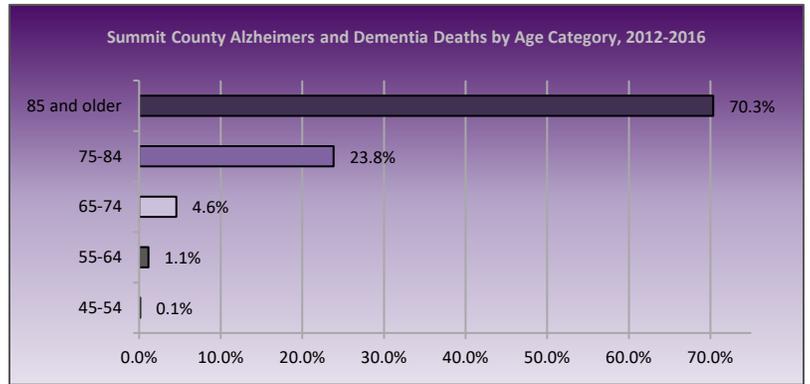


Figure 2: Summit County Alzheimer's and Dementia Deaths by Age Category, 2012-2016
Source: Ohio Department of Health Death Records, SCPH Calculations

Gender

Almost two thirds of all Americans living with Alzheimer's dementia are women. Since age is the greatest risk factor for Alzheimer's disease, this gender discrepancy is believed to be due to women living longer than men.² In Summit County females make up approximately 53% of residents who are 65 years of age or older. When evaluating Alzheimer's deaths females accounted for 69% of deaths in Summit County from 2012 to 2016.

Race

There is a large disparity in the risk of Alzheimer's disease development by race. African-Americans are about twice as likely as whites to have Alzheimer's or another dementia. This is thought to be due to a number of factors. African-American individuals are more likely to have diseases that are associated with an increased risk of Alzheimer's, such as diabetes and heart disease. Decreased access to health care earlier in life can attribute to worsening of these conditions. In Summit County 17.3% of African Americans ages 18-64 are uninsured.¹

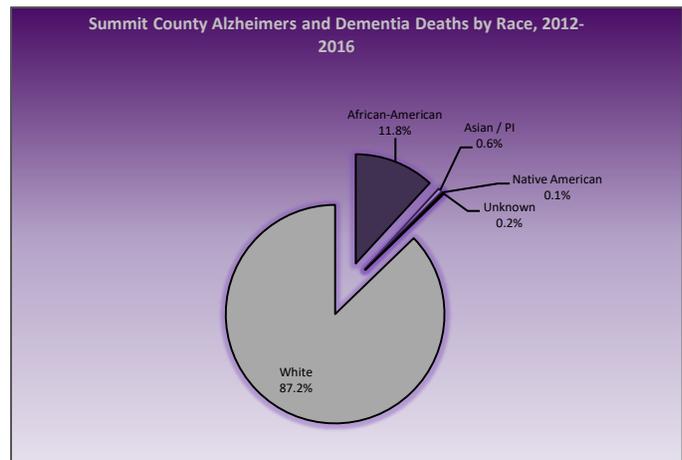


Figure 3: Summit County Alzheimer's and Dementia Deaths by Race, 2012-2016
Source: Ohio Department of Health Death Records, SCPH Calculations

Additionally, socioeconomic conditions such as poverty, education, and exposure to early life discrimination and adversity can increase the risk for dementia. However, while African-Americans are more likely to develop Alzheimer's than whites, they are less likely to have the diagnosis. This is thought to be due to higher rates of missed diagnoses among older African-American's when compared

to older whites.² In Summit County from 2012 to 2016, deaths due to Alzheimer’s dementia were approximately 87% White, 12% African-American and 1% other races.

Education

People with fewer years of formal education have a higher risk of developing

Alzheimer’s disease or other dementias. The theory behind this correlation is that individuals with more years of education have added “cognitive reserve” and are more capable of counterbalancing changes in the brain. It is also theorized that those with more education are able to afford healthier diets, and better healthcare and medical treatments.

Additionally, these individuals are more likely to have mentally stimulating jobs, and are less likely to have other risk factors such as heart disease and diabetes.² Out of those who are currently 65 and older in Summit County, approximately 14% have less than a high school degree and 40% have a high school degree or equivalent. When evaluating the 2012 to 2016 Alzheimer’s dementia deaths in Summit County, approximately 69% had a high school degree or less.

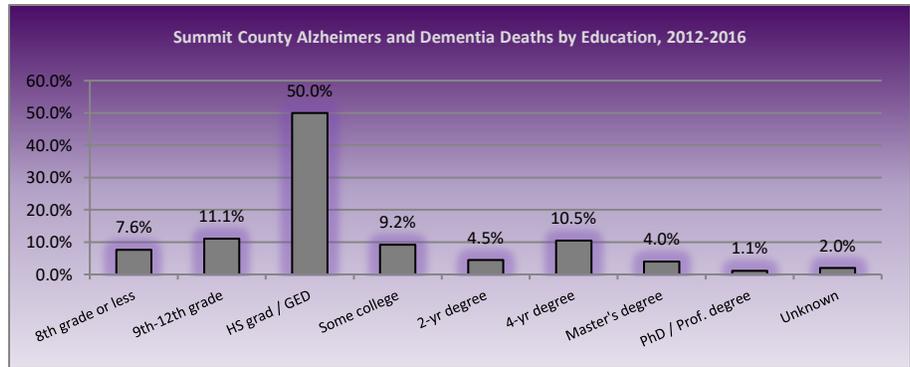


Figure 4: Summit County Alzheimer’s and Dementia Deaths by Education, 2012-2016
Source: Ohio Department of Health Death Records, SCPH Calculations

Poverty

As stated previously, individuals who can afford healthy diets, healthcare, and medical treatments are less likely to develop diseases such as heart disease and diabetes. In turn, those who are less likely to have these diseases are also less likely to have Alzheimer’s or other dementias. When evaluating Summit County, 7.9% of the total population are uninsured, and 14.3% are living below the poverty level. Furthermore, if you are living in poverty, you are likely less able to afford medical treatment for Alzheimer’s and dementia symptoms. Approximately, 13% of Summit County’s 65 and older population are living below the poverty level.¹ The Akron Central cluster has highest percentage of 65 and older living below the poverty level.

Figure 5: Summit County Residents 65 Years of Age or Older Living Below the Poverty Level by Cluster
Source: 2012-2016 American Community Survey 5-Year Estimates, SCPH calculations

Alzheimer’s Mortality

From 2000 to 2015 there has been an 123% increase in deaths due to Alzheimer’s disease throughout the United States.² In Summit County from 2006 to 2016, there has also been an increasing trend in deaths for Alzheimer’s dementia. When evaluating age adjusted death rates from 2006 to 2016 the U.S. seen a 26% increase in Alzheimer’s deaths while Summit County seen an increase of 30%.⁴ These increases are likely due to a combination of increased occurrence and improved physician education

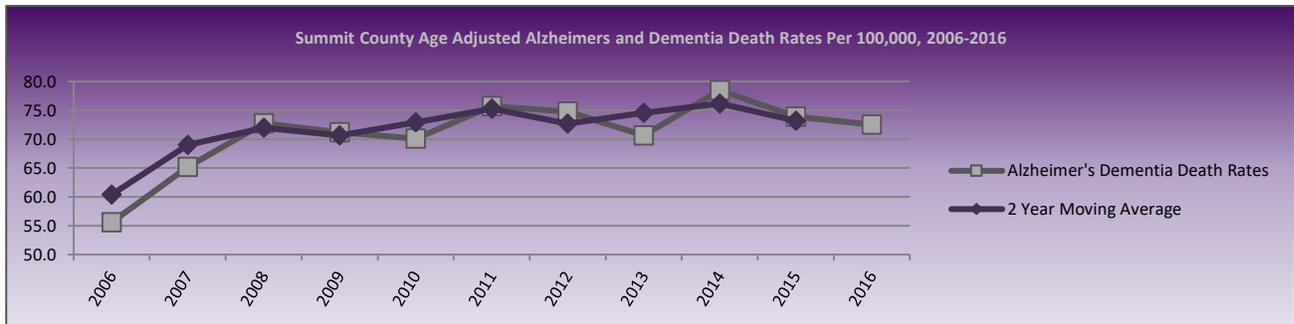


Figure 6: Summit County Alzheimer’s and Dementia Death Rates Per 100,000, 2006-2016
Source: Ohio Department of Health Death Records, American Community Survey Estimates, SCPH Calculations

around accurately diagnosing the disease and listing it as the underlying cause of death on death certificates.

Figure 7 and table 2 show the locations of Alzheimer’s and dementia deaths from 2012 to 2016. The highest percentages of deaths occurred in the Cuyahoga Falls clusters and the Copley/Bath/Fairlawn

| Summit County Alzheimer’s and Dementia Deaths, 2012-2016 | | |
|--|----------|-------|
| Cluster | Estimate | % |
| Akron Central | 42 | 1.4% |
| Akron North | 66 | 2.2% |
| Akron Northwest | 145 | 4.9% |
| Akron South | 89 | 3.0% |
| Akron Southeast | 197 | 6.6% |
| Akron Southwest | 112 | 3.8% |
| Akron West | 228 | 7.6% |
| Barberton | 164 | 5.5% |
| Copley/Bath/Fairlawn | 359 | 12.0% |
| Coventry/Green | 181 | 6.1% |
| Cuyahoga Falls | 326 | 10.9% |
| Franklin | 94 | 3.2% |
| Hudson | 136 | 4.6% |
| Munroe Falls/Tallmadge | 134 | 4.5% |
| Norton | 49 | 1.6% |
| Richfield/Boston | 88 | 2.9% |
| Sagamore Hills/Northfield/Macedonia | 152 | 5.1% |
| Springfield/Lakemore | 102 | 3.4% |
| Stow/Silver Lake | 226 | 7.6% |
| Twinsburg | 94 | 3.2% |

Table 2: Summit County Alzheimer’s and Dementia Deaths, 2012-2016
Source: Ohio Department of Health Death Records, SCPH Calculations

clusters while the lowest percentages of deaths occurred in the Norton, Akron Central, and Akron North Clusters. While the data seems to indicate higher deaths in some of the more affluent areas of Summit County, it should be noted that many of these clusters have higher concentrations of individuals who are 65 or older. Therefore, these residents are more likely to have a diagnosis of Alzheimer’s or dementia (Figure 1 & table 1). Additionally, the clusters with the highest percentage of Alzheimer’s deaths, Copley/Bath/Fairlawn and Cuyahoga Falls, contain 1/3 of all of Summit County’s nursing and assisted living facilities (Figure 7). Furthermore, the more impoverished clusters such as Akron Central and Akron North have some of the highest uninsured rates in the county (15.8% and 14.3%, respectively) while Copley/Bath/Fairlawn has one of the lowest uninsured

rates (3.6%).¹ These factors are likely to contribute to higher diagnoses and therefore, more causes of deaths labeled as Alzheimer's dementia in wealthier neighborhoods of Summit County.



Summit County Alzheimer's and Dementia Deaths, 2012-2016

Further Information

There are many co-occurring disorders that accompany Alzheimer's dementia such as:

- Hypertension: 73% of individuals with Alzheimer's dementia in the U.S. have hypertension
- Heart disease: 38% of individuals with Alzheimer's dementia in the U.S. have heart disease
- Diabetes: 37% of individuals with Alzheimer's dementia in the U.S. have diabetes
- Stroke: 22% of individuals with Alzheimer's dementia in the U.S. have had a stroke

Due to the seriousness of this disease and its co-occurring disorders, it is important to know the signs and symptoms to aid in early detection and diagnosis. According to the 2015 BRFSS, over half (52.7%) of Ohioans who report increased confusion or worsening memory loss have not talked about their memory concerns with a health care provider.² It is estimated that only about half of the population with Alzheimer's disease have a diagnosis. Of those with the diagnosis, only about 33% are aware that they have the disease.³ Early detection and diagnosis is vital so that individuals can seek treatment and care. Individuals with early detection can plan ahead with regards to decisions about healthcare, financing, housing, care, end of life decisions, etc. prior to severe cognitive changes. The Alzheimer's Association has published a list of 10 important warning signs to aid individuals in detecting this disease.

2012-2016
Source: Ohio Department of Health Death Records, ESRI data, SCPH calculations

1. Memory loss that disrupts daily life
2. Challenges in planning or solving problems
3. Difficulty completing familiar tasks at home at work or at leisure
4. Confusion with time or place
5. Trouble understanding visual images and spatial relationships

6. New problems with words in speaking or writing
7. Misplacing things and losing the ability to retrace steps
8. Decreased or poor judgement
9. Withdrawal from work or social activities
10. Changes in mood and personality³

For the sake of you and your loved ones, educate yourself, know the signs and symptoms of this disease, and take advantage of the many resources the county and the Alzheimer's Association has to offer.

References

¹ Census.gov. (2018). American FactFinder. Retrieved from <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> ²Alzheimer's Association (2018). *2018 Alzheimer's Disease Facts and Figures*.

³Alzheimer's Association (2017). *Early Detection and Diagnosis of Alzheimer's Dementia Policy Brief*.

⁴Underlying Cause of Death, 1999-2016 Request. (2018). Retrieved from <https://wonder.cdc.gov/ucd-icd10.html>