

HEALTH DISPARITIES AMONG VETERAN RESIDENTS: DATA PROFILE

Olmsted County, Minnesota

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Definitions For This Profile

Veteran

A veteran refers to residents who answered “Yes” to the question, “Have you ever served on active duty in the U.S. Armed Forces, Military Reserves, or National Guard?” in the 2024 Community Health Needs Assessment (CHNA) Mailed Survey.

According to the American Community Survey (ACS), “A civilian veteran is a person 18 years old or over who served (even for a short time), but is not now serving, on active duty in the U.S. Army, Navy, Air Force, Marine Corps, or the Coast Guard, or who served in the U.S. Merchant Marine during World War II.” People who served in the National Guard or military Reserves are only classified as veterans if they were ever called or ordered to active duty, outside of initial training or summer camps (US Census Bureau, 2021).

Not a Veteran

Not a veteran refers to residents who answered “No” to the question, “Have you ever served on active duty in the U.S. Armed Forces, Military Reserves, or National Guard?” in the 2024 CHNA Mailed Survey.

According to the ACS, all civilians 18 years old and over are classified as non-veterans if they have never served in the military or active duty for the National Guard or military Reserves (US Census Bureau, 2021)

Overview

Veterans have different military service branches, varying military experiences, and varying wartime eras and health-related issues associated with those eras. These variations create a very diverse and unique population. Veterans also experience mental health disorders, substance abuse disorders, post-traumatic stress, and traumatic brain injuries at higher rates compared to non-veterans (Olenick et al., 2015). Separation from military service and issues related to deployments can contribute to some veteran health and well-being issues. Ensuring access and quality healthcare to veterans contributes to a healthier community and demonstrates gratitude for their service to the United States.

In 2024, veterans made up 6.2% of the population in the United States, 5.9% of the population in Minnesota, and 5.9% of the population in Olmsted County according to the US Census Bureau, American Community Survey (ACS) 5-Year Estimate Subject Tables. In Olmsted County, the 5.9% veteran population represents around 7,347 people. In Olmsted County, the majority of veterans are Vietnam War (08/1964 to 04/1975) veterans (38.3%), followed by post 9/11 (9/2001 or later) veterans (19.5%), Gulf War (8/1990 to 8/2001) veterans (19.3%), Korean War (07/1950 to 01/1955) veterans (5.8%), and World War II (12/1941 to 12/1945) veterans (2%).

This data profile aims to understand the extent of health disparities faced by this population in the county and identify opportunities for improvement. It provides a detailed analysis of the health status and needs of veterans and highlights a disparity to be addressed and challenges to consider.

Summary

Veteran residents of Olmsted County experience a statistically significant health disparity and challenges in several key areas compared to non-veteran residents.

The disparity is a higher rate of hypertension compared to respondents who did not identify as veterans. Also, veterans face challenges with other chronic diseases, financial stress, and previous tobacco use. Some key findings include:

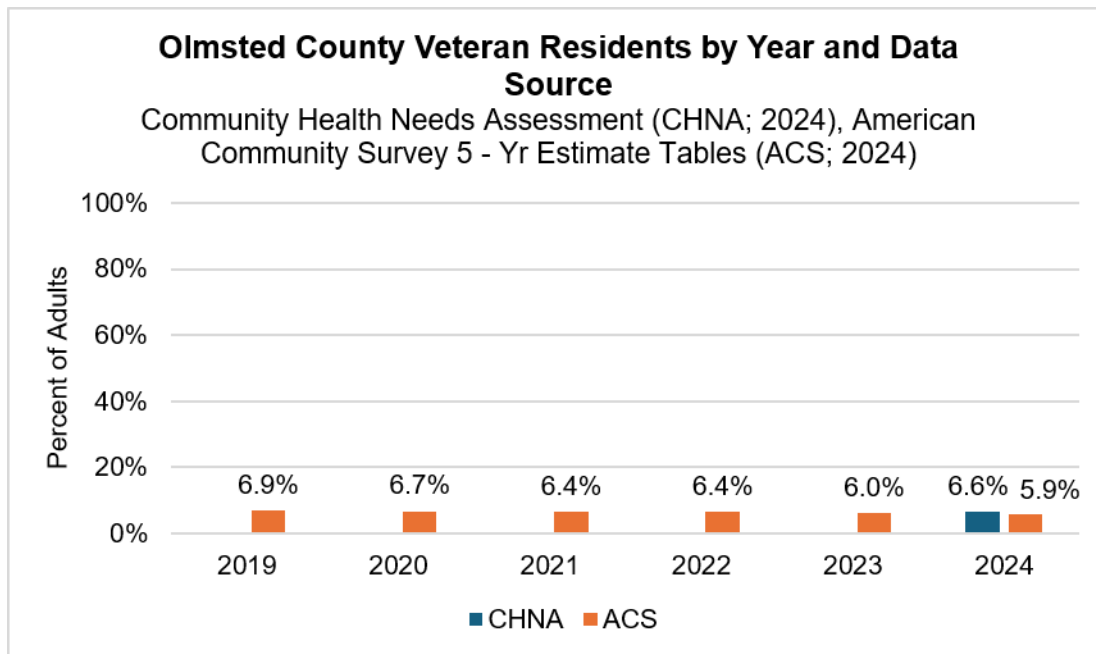
- **Physical Health:** Olmsted County veteran residents were significantly more likely to suffer from hypertension than non-veteran residents (56.4%* vs. 30.7%). Veterans also reported higher prevalences (but not statistically significant) than non-veteran residents for the following conditions: any other mental health issues (16.6% vs. 10.3%), high cholesterol/triglycerides (43.9% vs. 30.4%), heart problems/angina (17.1% vs. 6.4%), and cancer (18.1% vs. 10.7%).
- **Substance Use:** Veterans used alcohol more (71.4% vs. 64.0%) and cannabis slightly more (16.6% vs. 14.5%), compared to non-veterans (not statistically significant differences). However, veterans were significantly more likely to be former smokers, or smoking 100+ cigarettes, than non-veteran residents (44.5%* vs. 21.8%).
- **Financial Stress:** Veterans report some financial stress by being significantly more likely to report negative responses to statements about financial well-being compared to non-veterans:
 - Report “Never” to the statement “I have money left over at the end of the month” (17.7%* vs 7.6%).
 - Report “Almost every month/Every month” to the statement “How often in the past 12 months were you worried or stressed about having enough money to pay your bills?” (24.0%* vs. 9.9%).
 - Report “Retirement” to the statement “Which of the following major life events [if any] have [contributed to/impacted] to your financial [stress/situation]?” (53.6%* vs. 15.5%).

Overall

Olmsted County started collecting the veteran status of residents in 2024 in the Community Needs Health Assessment (CHNA) Survey. The American Community Survey (ACS) has collected the veteran status of respondents since 2005 (US Census Bureau, 2025). The percentage of veterans in Olmsted County has fluctuated around 6.4% for the last 6 years (2019 – 2024).

In 2024, the percentage of veteran residents was higher for the CHNA data compared to the ACS data (6.6% vs. 5.9%).

Figure 1: Olmsted County Veteran Residents by Year and Data Source.



Demographics

Table 1 (2024 CHNA Data) and Table 2 (US Census Bureau, 2024 ACS 5-Year Estimates) compare the demographics of Olmsted County veteran and non-veteran residents.

Table 1: Demographics of Olmsted County Veteran and Non-Veteran Residents (CHNA).

Demographics	Veteran Residents (N < 100)	Non-Veteran Residents (N = 867)
	6.6%	93.4%
Median Age	66	47
Race/Ethnicity (CHNA)		
White	83.7%	85.2%
Asian	-	8.2%
Hispanic/Latino	-	4.1%
Black/African American	+	4.0%
American Indian/Alaskan Native	-	1.2% ^A
Other	+	1.3% ^A
Gender		
Female	+	58.7%
Male	87.5%*	40.7%
Other Gender Minorities	-	1.6% ^A
Marital Status		
Married	62.4%	63.7%
Not Married	37.7%	36.3%
Employment Status		
Retired	61.2%*	23.3%
Not Retired	38.8%	76.7%
Household Income		
< \$15,000	19.9% ^{A*}	7.2%
< \$35,000	25.1% ^A	14.9%
\$35,000+	74.8%	85.1%
Fair/Poor Health Status	30.8% ^{A*}	9.4%
Disability Status		
Has a Disability	44.3%	30.8%
No Disability	55.7%	69.2%

Source: Olmsted County Community Health Needs Assessment (2024).

NOTE: * indicates a value is statistically significant value; A means the population was less than 20 respondents, + means the population was less than 10 respondents.

Table 2: Demographics of Olmsted County Veteran and Non-Veteran Residents (US Census ACS).

Demographic	Veteran Residents	Non-Veteran Residents
	5.9%	94.1%
Age Categories		
18 to 34 years	7.8%	30.5%
35 to 54 years	19.9%	33.8%
55 to 64 years	14.9%	16.0%
65 to 74 years	23.1%	11.6%
75 years and over	34.4%	8.1%
Race/Ethnicity (US Census)		
White Alone	90.6%	80.0%
Asian Alone	1.4%	6.8%
Hispanic or Latino (of any race)	3.1%	5.1%
Black/African American Alone	3.4%	6.3%
American Indian/ Alaska Native Alone	0.0%	0.2%
Some Other Race Alone	2.2%	1.8%
Two or More Races	2.3%	5.1 %
Gender		
Female	7.1%	54.4%
Male	92.9%	45.6%
Employment Status		
Retired	57.5%	19.7%
Not Retired	42.6%	80.3%
Median Income	\$60,183	\$52,512
Federal Poverty Level (FPL) Status		
Below FPL	4.0%	7.9%
At or above FPL	96.0%	92.1%
Disability Status^c		
Has a Disability	26.4%	11.8%
No Disability	73.6%	88.2%

Source: US Census Bureau, American Community Survey (2024: ACS 5-Year Estimates Subject Tables).

NOTE: C – Disability status is defined for those 18 years and over for whom poverty status is determined.

According to the 2024 CHNA, Olmsted County veteran residents are more likely to be white, male, 50+ years old, married, retired, no disability, good/very good/excellent health status, and household income equal or greater than \$35,000.

According to the 2024 US Census Bureau, American Community Survey (ACS) 5-Year Estimates Subject Tables, Olmsted County veteran residents are more likely to be white, male, 55+ years old, no disability, and have a household income at or greater than the FPL.

Comparing the demographic data from the 2024 CHNA to the 2024 US Census Bureau, there are similarities, and slight differences. There are also differences in demographic data available, making it more difficult to compare the veteran population using two different data sources. The similarities and slight differences will be discussed in more detail in the later sections of the Demographics.

Age

In the 2024 CHNA, the median age of veteran residents in Olmsted County is 66 years old, while the median age of non-veteran residents is 47 years old. Compared to non-veteran residents, veteran residents are significantly more likely to be 65+ years old (55.5%* vs. 23.4%).

In the 2024 ACS, veteran residents 75+ years old was the largest veteran population (34.4%), while the non-veteran residents 35 – 54 years old was the largest population (33.8%).

Overall, there are similar trends, where the majority of veteran residents are older (65+ or 75+ years old), according to both data sources.

Race and Ethnicity

Most veteran residents are white for both CHNA and ACS (83.7% vs. 90.6%). It is difficult to compare the data sources due to different ways of defining race/ethnicity.

In the 2024 ACS data, veteran residents also identified as:

- Asian alone (1.4%).
- Black/African American alone (3.4%).
- Some Other Race alone (2.2%).
- Hispanic/Latino (of any race) (3.1%).
- Two or More Races (2.3%).

Gender Identity

Most veteran residents are male for both the CHNA and ACS data (87.5% vs. 92.9%). For the 2024 CHNA data, veteran residents were significantly more likely to be male than non-veteran residents (87.5%* vs. 40.7%).

Employment Status

Whether a veteran was retired or not retired was available for the 2024 CHNA, but it was not explicitly stated in the 2024 ACS. Retirement was assumed at 65+ years. The 2024 CHNA employment status questions allowed respondents to select all answers that applied, resulting in percents greater than 100%. Whether someone was employed or unemployed was also available for the 2024 ACS.

In the 2024 CHNA, a veteran resident was significantly more likely to be retired than a non-veteran resident (61.2%* vs. 23.3%). In the 2024 ACS, a veteran resident was more likely to be retired than a non-veteran resident (57.5% vs. 19.7%). Both data sources resulted in similar percentages of veteran residents and non-veteran residents with a variation of 3.7% for veterans and 3.6% for non-veterans between the CHNA and ACS.

Income and Poverty

The 2024 CHNA collected household income information, and the 2024 ACS reported median income. Both data sources indicate the majority of veterans make an income above the federal poverty level, but this is supported with different indicator definitions.

For the CHNA, the assumption is a household income less than \$15,000 for an individual or household (19.9%^{A*}) or less than \$35,000 (25.1%^A) for a household indicates a household with an income below the FPL. The ACS directly reports on veterans living below the federal poverty level in the last 12 months (4%). The difference reported among the different values makes it difficult to interpret the data beyond the general overall insight.

For the 2024 CHNA, a veteran resident was significantly more likely than a non-veteran resident to have an income less than \$15,000 (19.9%^{A*} vs. 7.2%).

Disability

Both sources collected information on disability. The 2024 CHNA asked all respondents about their disability status, while the 2024 ACS only looked at respondents 18 years old and older for whom the poverty status was determined.

Overall, veterans are more likely to have a disability. In both data sources, a veteran resident is more likely than a non-veteran resident to have a disability according to both the CHNA (44.3% vs. 30.8%) and ACS (26.4% vs. 11.8%).

Findings

Olmsted County looks at 29 health and social determinants of health indicators using the CHNA data. Olmsted County veteran residents were significantly more likely (statistically significant) than non-veteran residents to experience the following disparity (one among the 29 health and social determinants of health indicators):

1. Hypertension.

This data profile groups indicators into the following themes:

1. Physical Health.
2. Substance Use.
3. Financial Stress.

Physical Health

Physical health relates to the structural, functional, and physiological aspects of body, including how well the organ systems are working and muscle strength, flexibility, and endurance. Lifestyle choices, genetics, age, and environmental factors all influence a person's physical health.

Many veterans are dealing with chronic physical health conditions and chronic mental health conditions. With all socioeconomic and geographical variables considered, veterans are estimated to have higher rates of obesity/being overweight, heart disease, stroke, skin cancer, other cancers, chronic obstructive pulmonary disease, arthritis, and diabetes (Betancourt et al., 2021). Boersma (2021) found the three most common conditions for male veterans aged 25 to 65 years old were hypertension, arthritis, and diabetes. Hypertension, arthritis, and cancer were most common for male veterans aged 65+ years old. The three most common conditions for female veterans aged 25 to 65 years old were arthritis, hypertension, and asthma. Hypertension, arthritis, and cancer were most common for female veterans aged 65+ years old.

Similar trends were reported in Olmsted County veteran residents. Table 3 compares veteran and non-veteran residents reporting medical conditions in the 2024 CHNA.

Table 3: Medical conditions reported by Olmsted County residents by veteran status.

Chronic Condition	Veteran Residents	Non-Veteran Residents
High blood pressure/hypertension	56.4%*	30.7%
High cholesterol or triglycerides	43.9%	30.4%
Overweight	36.8%	43.1%
Depression	28.7% ^A	27.8%
Cancer	18.1% ^A	10.7%
Heart problems (angina)	17.1% ^A	6.4%
Obesity	16.7% ^A	21.2%

Source: Community Health Needs Assessment (2024).

NOTE: * denotes statistically significant values; A means the population was less than 20 respondents.

Veteran residents reported higher prevalence (but not statistically significant) than non-veteran residents for the following conditions:

- Any other mental health issues.
- High cholesterol/ triglycerides.
- High blood pressure/hypertension.
- Heart problems (angina).
- Cancer.
- Stroke or stroke related health issues.
- Chronic lung disease (including COPD, chronic bronchitis, or emphysema).

Olmsted County veteran residents were significantly more likely to suffer from hypertension than non-veteran residents (56.4%* vs. 30.7%).

Veteran residents reported lower or similar prevalences (but not statistically significant) than non-veteran residents for the following conditions:

- Anxiety or panic attacks (Lower prevalence in veterans).
- Depression (Similar prevalence in veterans and non-veterans).
- Obesity/Overweight (Lower prevalence in veterans).
- Respiratory allergies (Lower prevalence in veterans).
- Asthma (Lower prevalence in veterans).
- Pre-diabetes/Diabetes (Similar prevalences in veterans and non-veterans).

The 2024 CHNA data seems to slightly diverge from other research reporting lower levels of mental health conditions (anxiety/depression) among veterans, similar levels of obesity/being overweight among veterans and non-veterans, lower levels of asthma among veterans, and similar levels of pre-diabetes/diabetes among veterans and non-veterans.

Examples of research diverging slightly from 2024 CHNA data:

- Posttraumatic stress disorder (PTSD), major depressive disorder (MDD), and anxiety related disorders are common mental health conditions suffered by US veterans, with estimates ranging from 4.8 – 23% for PTSD (Fulton et al., 2015; Tsai et al., 2014; Dursa et al., 2014), 9.6% for MDD (Liu et al., 2018), and 3.7 – 4.8% for anxiety disorders (Black et al., 2004; Trivedi et al., 2015).
- Betancourt et al. (2021) found veterans had higher levels of obesity compared to non-veterans.
- Deployed veterans of Operation Iraqi Freedom and Operation Enduring Freedom had a 55% higher risk of developing asthma compared to their non-deployed peers. These veterans were often exposed to airborne hazards such as burn pits and dust storms and have long-term health impacts, particularly for

respiratory diseases (*Military Deployment Linked to Higher Risk of Respiratory Diseases, New Study Finds - ACAAI Patient*, 2025).

- Liu et al. (2017) found the prevalence of diabetes was 20.5% and undiagnosed diabetes was 3.4% using 2013 - 2014 data from National Health and Nutrition Examination Survey (NHANES). Diabetes was most prevalent among veterans 65+ years old (27%), among male veterans (22%), among veterans with less than 12 years of education (33.5%), and among veterans with an income below the 100% FPL (23.8%).

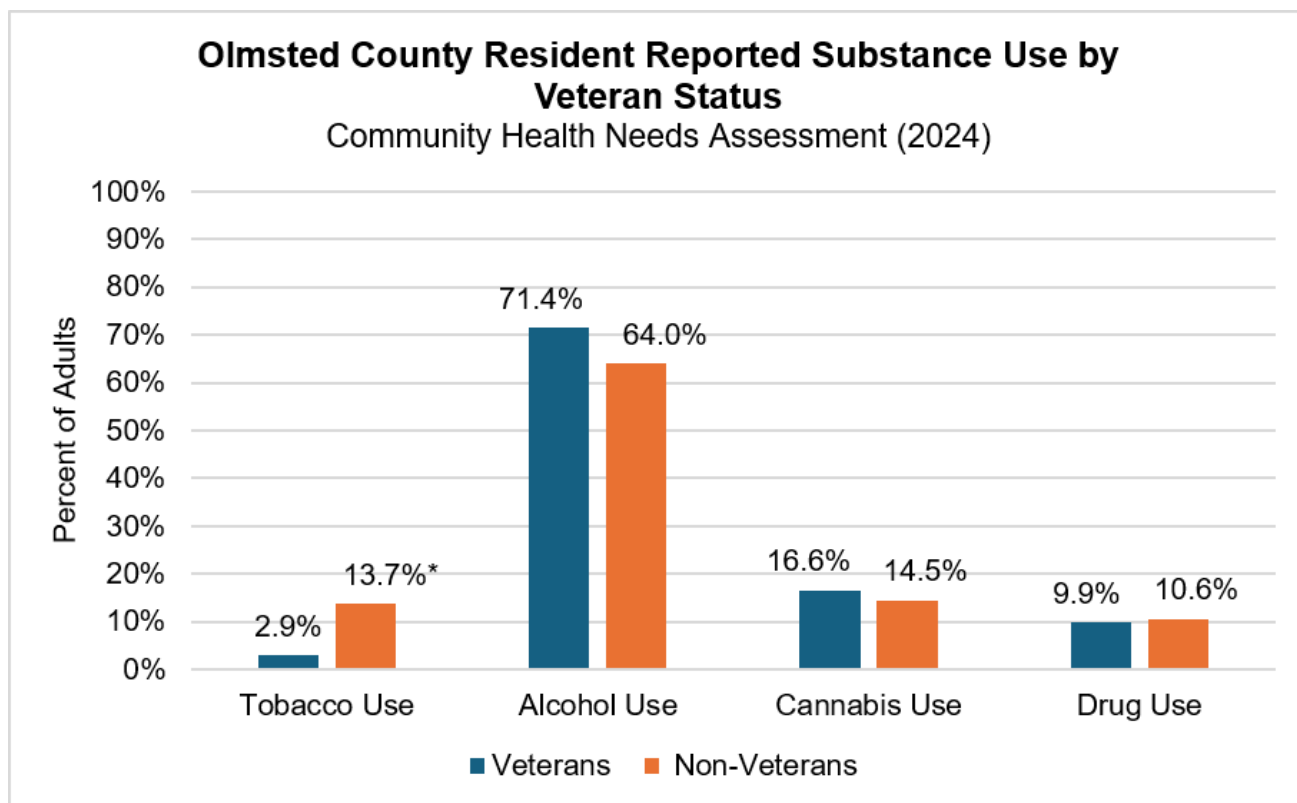
Substance Use

Substance use is the consumption of drugs or other substances for non-medical purposes. Substance use may involve legal substances, like alcohol, tobacco, or cannabis, and illegal substances, such cocaine or heroin. Cannabis became legal in Minnesota on August 1, 2023, prior to collection of the CHNA data. Substances may be consumed, inhaled, injected, or another method and absorbed into the body. Substance use ranges from occasional use to dependance and can have physical, psychological, and social consequences.

About 11% of veterans visiting a Department of Veterans Affairs medical facility for the first time have substance use disorder (National Institute on Drug Abuse (NIDA), 2019). Binge drinking is common among veterans (Teeters et al., 2017), and more than 80% of veterans abuse alcohol (*2018 National Survey on Drug Use and Health: Veterans*, n.d.). Around 27% of veterans use illegal drugs, and about 7% abuse both alcohol and illegal drugs (*2018 National Survey on Drug Use and Health: Veterans*, n.d.). Veterans may use substances to cope with mental health disorders, readjustment to civilian life, or to manage pain (Miller, 2025). Substance use is also linked to trauma, homelessness, mental health disorders, physical health issues, increased risk of suicide, and relationship and work problems (National Institute on Drug Abuse (NIDA), 2019). Binge drinking is common among veterans (Teeters et al., 2017).

Veteran residents were significantly more likely to have been a former smoker, smoking 100+ cigarettes, than non-veteran residents (44.5%* vs. 21.8%). Veteran residents use alcohol more than non-veterans (71.4% vs. 64.0%). Veteran residents use cannabis slightly more than non-veterans (16.6%^A vs. 14.5%).

Figure 2: Olmsted County Resident Reported Substance Use by Veteran Status.



*NOTE: * denotes statistically significant values; A means the population was less than 20 respondents.*

Financial Stress

Financial stress is when concern about money, such as bills, debt, or unexpected expenses, become more persistent and overwhelming and begin to affect sleep, mood, relationships, and overall quality of life.

Financial strain is related to poorer health outcomes for veterans and the general population (McKee-Ryan et al., 2005). Stevens et al. (2020) found a lower income at the age of 38 was associated with a worse health-related quality of life two decades later among Vietnam Era Veterans. There have been mixed reports on the financial well-being of veterans. Mottola et al. (2024) found veterans were generally better off financially compared to non-veteran Americans, while Morgan et al. (2005) reported veterans using Veteran Affairs (VA) services tended to be less well-off than their non-VA veterans Americans.

Elbogen et al. (2024) found veterans and non-veterans had similar financial status related to housing instability, emergency funds, medical/legal debts, and using government benefits. The housing instability did not differ between veterans and non-veterans. Veterans and non-veterans had similar levels of emergency funds, medical/legal debt, and use of government benefits. Adjusting for demographic and geographic information, veterans were more likely to report payday/pawnshop loans, credit card debt, unpaid credit card balance, paying overdraft fees, purchasing lottery tickets, and gambling. Also, the study found financial well-being predicted physical health in veterans and non-veterans – even beyond demographics.

In the 2024 CHNA data, veterans appear to report some financial stress:

- Veterans were significantly more likely to report “Never” to the statement “How often does this statement “I have money left over at the end of the month” apply to you?” compared to non-veterans (17.7%^{A*} vs 7.6%).

- Veterans were significantly more likely to report “Almost every month/Every month” to the statement “How often in the past 12 months were you worried or stressed about having enough money to pay your bills?” compared to non-veterans (24.0%^{A*} vs. 9.9%)
- Veterans were significantly more likely to report “Retirement” to the statement “Which of the following major life events [if any] have [contributed to/impacted] to your financial [stress/situation]?” compared to non-veterans (53.6%^{A*} vs. 15.5%).

While the social determinant of health indicators for financial stress may not have been significant between veterans and non-veterans, the CHNA data indicates that there may be some financial stress experienced by our veterans, especially the larger older generations from retirement.

Conclusion

In conclusion, this data profile highlights a significant disparity and significant aspects of some social determinants of health experienced by veteran residents in Olmsted County.

The findings reveal that veterans are more affected by hypertension; veterans can experience challenges with financial stress; and many veterans were previous smokers, which may affect their health later in life.

Addressing disparities requires a comprehensive approach, including targeted interventions. By taking action, we can work towards creating a more equitable and healthier community for all residents of Olmsted County.

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Technical Notes

Statistical Significance

Some graphs and tables within this document contain statistically significant data (Chi-Square: P-value < .05).

Methods of Analysis

Population

Olmsted County, Minnesota residents aged 18 years and older.

Data Source(s):

a. Community Health Needs Assessment (CHNA) Mailed Survey: 2013, 2015, 2018, 2021, 2024

The CHAP process developed the survey instrument with technical assistance from the Minnesota Department of Health (MDH) Centers for Health Statistics (for the 2013, 2015, and 2018 assessments) and the Wilder Foundation (for the 2021 and 2024 assessment). Existing questions from previous community surveys, the Behavioral Risk Factor Surveillance System (BRFSS) survey, other national, validated health surveys and recent county-level surveys in Minnesota were used to design the questions on the instrument. The survey was formatted by the survey vendor as a scannable, self-administered, English questionnaire. In 2024, 940 residents in Olmsted County responded to the survey.

b. United States Census Bureau, American Community Survey 5-Year Estimate Table S2101 Veteran Status Table: 2019, 2020, 2021, 2022, 2023, 2024

The American Community Survey (ACS) is an annual survey sent to a sample of addresses across the 50 states and the District of Columbia on a rolling basis intended to measure social, economic, demographic, and housing characteristics of the U.S. population. The subject tables provide information on a particular ACS subject, like veterans, with both estimates and percentages.

Methods

SPSS (version 28), WinCross (version 22), and Microsoft Excel were all used for analysis and presentation of data.

Analysis of the Olmsted County resident data (CHNA) used independent Z-Test for percentages with unpooled proportions to determine significant differences at 95% confidence intervals.

Data reported via a secondary source of the US Census Bureau was cited directly from the source – no internal analysis was conducted.

Throughout the report, a notation symbol (*) signals a significant difference in the data. A notation symbol (A) was used to signal smaller respondent population size (less than 20 respondents).

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