



IMPAQ
INTERNATIONAL

ISSUE BRIEF

VETERANS AND FOOD INSECURITY

IN THIS BRIEF

Food insecurity occurs at lower rates among veterans compared to the general population, but recent research has estimated higher rates among specific subgroups of veterans. Using nationally-representative data from more than 25,000 veterans, this Issue Brief explores the characteristics of veterans most likely to experience food insecurity. By better understanding those most-at-risk for food insecurity, health care providers, social services, and programs designed to aid soldiers returning to civilian life can play a role in effectively and efficiently reducing food insecurity among veterans.

OVERVIEW

Food insecurity – defined as the lack of access to enough food to lead a healthy lifestyle – is associated with poor health outcomes, including diabetes, heart disease, and depression.¹ More than 11% of adults in the United States (U.S.) lived in a household experiencing food insecurity at some point in 2017.² Rates of food insecurity are higher among low-income households, those with children, and those headed by a single parent.

Among U.S. Armed Forces veterans, recent research has shown widely varying estimates of food insecurity, that differ from that of the general population. One study estimated that 8.4% of veterans in the general population experience food insecurity at some point over the course of a year.³ Other studies of veterans receiving health care from the U.S. Department of Veterans Affairs (VA) have found that more than 20% of veterans experience food insecurity.^{4,5} These varying rates of food insecurity suggest that hunger may be experienced by specific subgroups within the veteran population. Understanding factors associated with food insecurity among veterans will help nutrition assistance programs and health systems address the unique needs of this population.

IMPAQ used nationally representative data from the 2011–2017 National Health Interview Survey (NHIS)⁶ to examine rates of 30-day food insecurity among American veterans not currently on active military duty. All estimates were weighted to be representative of the U.S. population. In 2011–2017, the NHIS collected data from more than 25,000 veterans aged 21 and older that were used in this analysis.

VETERANS IN THE NHIS

As anticipated, the characteristics of U.S. veterans do not mirror that of the general population. A typical veteran in the NHIS was a married male, age 61, who identified as being non-Hispanic White. Veteran demographic and socioeconomic characteristics include:

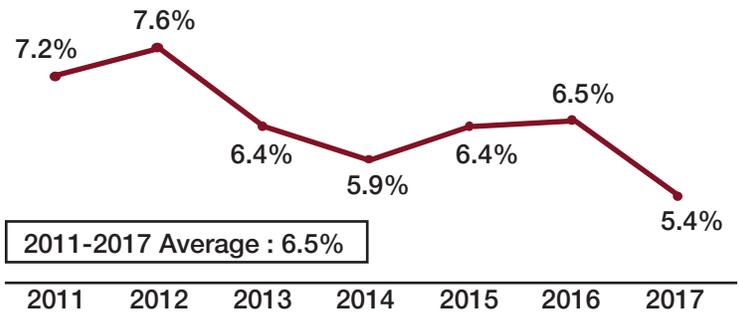
- **Sex:** Only a small share (4.9%) of veterans were female.
- **Race/Ethnicity:** The majority (79.1%) of veterans were non-Hispanic White, while 11.2% were non-Hispanic Black and 5.9% were Hispanic.
- **Marital Status:** Most veterans (70.8%) were married.
- **Education:** Two-thirds (66.5%) of veterans had some college or higher level of education.
- **Poverty Status:** A small proportion (5.2%) had household incomes at or below the poverty threshold.

The vast majority (80.6%) of veterans reported being in good, very good, or excellent **health**⁷ and 96.3% reported having **health insurance coverage**. One in 20 veterans (5.1%) were likely experiencing **serious mental illness**⁸ at the time of the survey, a critical risk factor for food insecurity.

FOOD INSECURITY AMONG VETERANS

Overall, 6.5% of veterans in the NHIS were food insecure in 2011-2017. In 2011-2012, more than 7% of veterans experienced past 30-day food insecurity, and this rate has only slightly declined since that time (Exhibit 1).

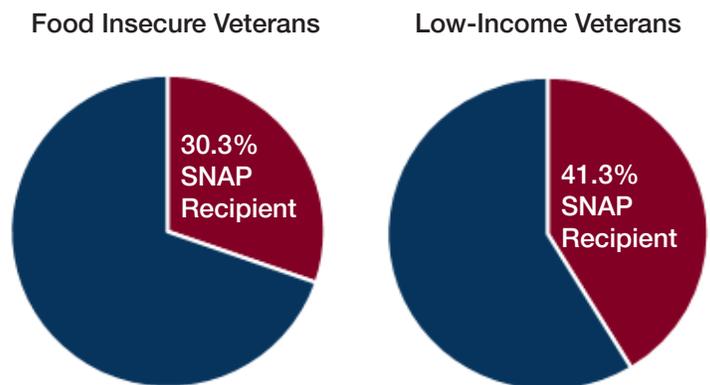
Exhibit 1: Food Insecurity among Veterans, 2011- 2017



The Supplemental Nutrition Assistance Program (SNAP) is an important safety net program designed to guard against food insecurity. NHIS data indicate that veterans struggling with poverty and food insecurity may not be participating in SNAP, though they are likely eligible to do so:

- **Among food insecure veterans**, less than one-third were in households receiving SNAP.
- **Among veterans in households with incomes below the poverty threshold**, only about 4 in 10 were in SNAP-recipient households (Exhibit 2).

Exhibit 2: Veterans in SNAP Recipient Households

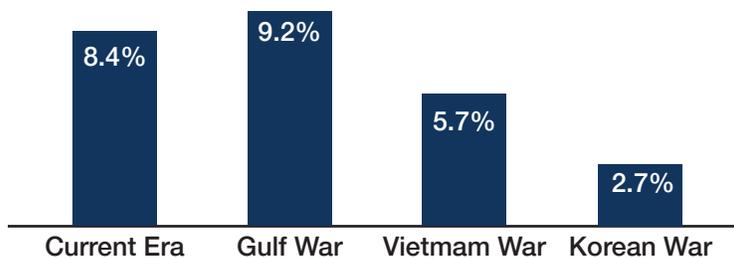


RISK FACTORS FOR VETERAN FOOD INSECURITY

Similar to adults in the general population, the likelihood of a veteran being food insecure is associated with certain demographic and socioeconomic characteristics:

- **Age:** The likelihood of food insecurity progressively declines with age. Specifically, 10.3% of veterans under 45 years reported being food insecure, compared to 4.3% of those aged 65-74 years and 2.3% of those aged 75 and older.
- **Service Era:** The age gradient is reflected in food insecurity rates by veterans' service era – Korean War veterans were least likely to be food insecure, while Current Era veterans were the most likely (Exhibit 3).

Exhibit 3: Food Insecurity Rates, by Service Era



- **Gender:** Female veterans were more likely than their male counterparts to be food insecure (10.8% vs. 6.3%).
- **Education:** As expected, lower levels of education were associated with higher rates of food insecurity. Those without a high school degree were more than three times as likely to be food insecure relative to their college-educated counterparts (9.2% vs. 2.9%).

Veterans are more likely to be food insecure if they are younger, female, less educated, non-White, and single. These are risk factors for food insecurity also among the general population.

- **Race/Ethnicity:** Minority veterans had higher rates of food insecurity than non-Hispanic White veterans. Specifically, 8.2% of Hispanic and 12.4% of non-Hispanic Black veterans were food insecure, compared to 5.3% of non-Hispanic White veterans.
- **Marital Status:** Single veterans were more than twice as likely to be food insecure than those who were married (10.1% versus 4.5%).

Food insecurity among veterans may also be associated with **physical and mental health**. For instance, veterans experiencing serious mental illness experienced much higher rates of food insecurity than those who were not (35.2% vs 3.4%). Similarly, veterans who reported fair or poor health were about three times as likely to be food insecure than those who reported being in better health (14.2% vs. 4.7%; Exhibit 4).

Veterans likely experiencing serious mental illness have a 10 times higher rate of food insecurity.

As expected, veterans with any health insurance coverage were significantly less likely to be food insecure than those without (5.9% vs. 21.9%). Conversely, veterans with military health insurance had slightly higher rates of food insecurity than other veterans (8.0% vs. 5.7%).

Exhibit 4: Food Insecurity Rates by Health

Health Characteristics	% Food Insecure
Experiencing Serious Mental Illness	
Yes	35.2%
No	3.4%
Health Status	
Fair/Poor	14.2%
Good/Very Good/Excellent	4.7%

IMPLICATIONS

The population of community-dwelling, non-active duty veterans in the NHIS are slightly better off than the general population with regard to a number of factors that have been linked to food security, including income, older age, and health insurance coverage. This is reflected in veterans’ food insecurity rates: in 2011-2017, veterans overall were less likely to experience food insecurity than adults in the general population (6.5% vs 10.2%).

These overall estimates, however, mask the relatively high rates of food insecurity observed among specific subpopulations of veterans and underscores the importance of accounting for specific risk factors when serving them. For instance, while the association between food security and mental health is well-established,⁹ veterans may be more likely to experience serious mental illness than the general population.¹⁰ As such, the high rate of food insecurity observed among veterans experiencing serious mental illness in the NHIS is of particular concern. One avenue for addressing food insecurity for this population is integration of food security screening during primary care and behavioral health visits. Behavioral health professionals could also incorporate food insecurity as a factor in veterans’ mental health treatment plans.

We found that veterans who served during the Afghanistan and Iraq wars and the Gulf War had the highest rates of food insecurity. While food insecurity typically decreases with age, newly returning veterans and those who most recently served face hurdles that older veterans may have already overcome. For example, newly returning veterans may be challenged to find employment that pays a living wage, may be experiencing mental health challenges, or find the transition to civilian life challenging from a financial management standpoint. Ensuring that newly returning veterans receive adequate employment and training opportunities could be an additional avenue for supporting veterans who are more likely to struggle with food insecurity.

Further, our analysis showed that fewer than 4 in 10 food insecure veterans participate in SNAP, which can help alleviate food insecurity, reduce health care costs, and prevent avoidable health care utilization. Connecting food insecure and low-income veterans with SNAP benefits and other social services can support their health and well-being while they attempt to overcome other barriers to self-sufficiency such as unemployment, low wages, and poor physical or mental health.

While this Issue Brief describes food insecurity among a large population of community-dwelling veterans, it should be noted that important subgroups of veterans are likely not represented in the NHIS. For instance, homeless or institutionalized veterans, who may be more vulnerable to food insecurity and its consequences, are not captured in the NHIS.

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Ms. Jennifer Pooler, MPP, conducts social science research and program evaluation. She seeks to improve the health and well-being of low-income populations by informing food assistance and nutrition program policy through useful data and actionable evidence for addressing food insecurity and other social risk factors.



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REFERENCES

1. Gundersen C, Ziliak JP. Food insecurity and health outcomes. *Health Aff.* 2015;34(11):1830-1839.
2. Coleman-Jensen A, Rabbitt MP, Gregory CA, Singh A. Household Food Security in the United States in 2017, ERR-256. Washington, DC; 2018.
3. Miller DP, Larson MJ, Byrne T, Devoe E. Food insecurity in veteran households: Findings from nationally representative data. *Public Health Nutr.* 2016;19(10):1731-1740. doi:10.1017/S1368980015003067.
4. Wang EA, McGinnis KA, Goulet J, et al. Food insecurity and health: Data from the veterans aging cohort study. *Public Health Rep.* 2015;130(3):261-268. doi:10.1177/003335491513000313.
5. Widome R, Jensen A, Bangerter A, Fu SS. Food insecurity among veterans of the US wars in Iraq and Afghanistan. *Public Health Nutr.* 2015;18(5):844-849. doi:10.1017/S136898001400072X.
6. Blewett L, Rivera Drew J, Griffin R, King M, Williams K. IPUMS Health Surveys: National Health Interview Survey, Version 6.2. 2018. doi:http://doi.org/10.18128/D070.V6.2.
7. The number of veterans completing the health interview portion of the survey differs from those included in the household sample for which food security is determined (n=11,960).
8. Kessler, RC, Andrews, G, Colpe, LJ, et al. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine.* 2002;32(6), pp. 959-976. doi: DOI: 10.1017/S0033291702006074. Serious mental illness is identified using the Kessler 6 Scale (K6) which asks about six manifestations of nonspecific psychological distress in the past 30 days, specifically how often respondents felt nervous, restless or fidgety, hopeless, worthless, that everything was an effort, or so sad that nothing could cheer you up.
9. Mangurian C, Sreshta N, Seligman HK. Food insecurity among adults with severe mental illness. *Psychiatr Serv.* 2013;64(9):931-932.
10. Pemberton MR, Forman-Hoffman VL, Lipari RN, Ashley OS, Heller DC, Williams MR. Prevalence of past year substance use and mental illness by veteran status in a nationally representative sample. *CBHSQ Data Review.* Rockville, MD; 2016. <https://www.samhsa.gov/>