

# An Examination of Veterans' Diet Quality

Diansheng Dong, Hayden Stewart, and  
Andrea C. Carlson

## What Is the Issue?

Veterans, who make up about 7 to 8 percent of the U.S. adult population, are the focus of numerous Government programs, including healthcare and nutrition education programs administered by the U.S. Department of Veterans Affairs. In these programs, registered dietitians and other nutrition professionals work with veterans and their families at the various Veterans Health Administration healthcare facilities to promote wellness and prevent disease. Consuming a healthy diet is associated with a reduced risk of diseases like type 2 diabetes, cardiovascular disease, and certain cancers, resulting in lower healthcare costs. However, to our knowledge, there has not been a national assessment of veterans' diet quality. Using the Healthy Eating Index (HEI) of the U.S. Department of Agriculture and the National Cancer Institute, we examine whether veterans have significantly better or poorer diets than nonveterans.

## What Did the Study Find?

Like other Americans, individuals who have served on active duty in the U.S. Armed Forces, military reserves, or National Guard could benefit from improvements to their diet quality. Given their reported energy intake, veterans overconsume added sugars and solid fats and underconsume fruits, vegetables, dairy products, and whole grains.

However, after controlling for demographic characteristics and a general time trend, this study finds that veterans deviate further than nonveterans from Federal dietary recommendations:

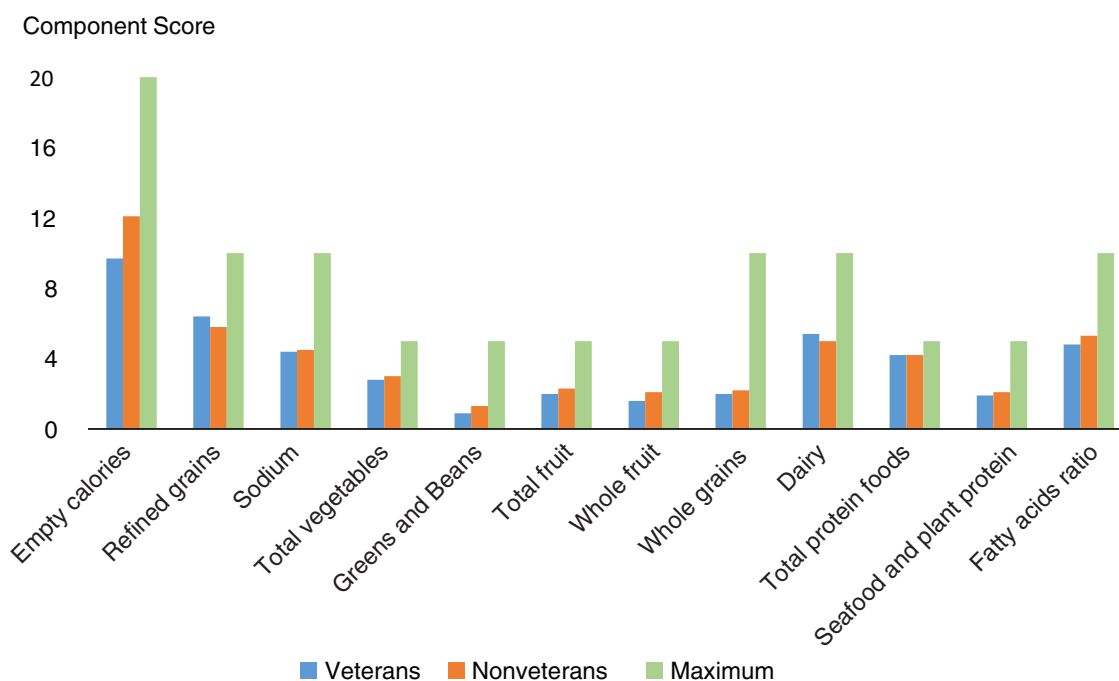
- During the period 2003 to 2016, veterans attained an adjusted total HEI score 3.7 points below that attained by nonveterans (an expected score of 45.6 of 100 for veterans versus 49.3 of 100 for nonveterans). An individual's overall HEI score is calculated by summing 12 component scores, which measure how well the person satisfies recommendations for specific food groups and subgroups.
- Being a veteran is associated with lower HEI component scores for empty calories; veterans tend to acquire a greater share of their total calories from less nutrient-rich added sugars and solid fats.
  - Added sugars accounted for about 13 percent of the average American adult's daily caloric intake over the study period and the share was another 2 to 3 percentage

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

points higher among veterans. Added sugars include caloric sugars and syrups added to foods. According to the 2015-2020 Dietary Guidelines, they should represent less than 10 percent of all calories consumed by an individual.

- Solid fats accounted for about 16 percent of the average American adult’s daily caloric intake over the study period and the share was another 1 to 3 percentage points higher among veterans. Solid fats are the fats found in meats, poultry, dairy products, hydrogenated vegetable oils, and some tropical oils.
- There was no significant difference in empty calories consumed from excess alcohol between veterans and nonveterans.
- Other differences identified between veterans and nonveterans were relatively small. Veterans scored slightly lower on HEI components for fruits and vegetables than nonveterans but had slightly better scores for the Dairy component.

### Average Healthy Eating Index (HEI) component scores for veterans versus nonveterans after adjusting for demographic differences and a time trend



Healthy Eating Index component scores in the figure control for demographic differences between veterans and nonveterans and are based on the HEI-2010. In the HEI-2010, calories from added sugars, solid fats, and excess alcohol are in the empty calories component.

Source: USDA, Economic Research Service analysis of National Health and Nutrition Examination Survey, 2003-2016.

### How Was the Study Conducted?

Veterans’ diets were assessed using dietary recall data collected between 2003 and 2016 in the National Health and Nutrition Examination Survey (NHANES). Among all 30,280 adults who provided data on their food and beverage intake, 12.9 percent (3,901 of 30,280) had served on active duty in the U.S. Armed Forces, military reserves, or National Guard. To control for demographic differences between veterans and nonveterans (e.g., veterans were older and more likely to be male than nonveterans), a statistical model was estimated to predict HEI-2010 scores for veterans and nonveterans during the years 2003 to 2016.