



June 2024

DOD FOOD PROGRAM

Additional Actions Needed to Implement, Oversee, and Evaluate Nutrition Efforts for Service Members

GAO Highlights

Highlights of [GAO-24-106155](#), a report to congressional committees

Why GAO Did This Study

According to DOD, poor health and nutrition are growing challenges that threaten U.S. military readiness and its ability to retain a fit and healthy force. DOD's policy is to provide military service members with appropriate nutrition to help ensure they can achieve and maintain performance. DOD relies on various food service operations to feed military personnel high-quality food in a cost-effective manner.

The Joint Explanatory Statement accompanying the National Defense Authorization Act for Fiscal Year 2022 includes a provision for GAO to review the quality and nutrition of food available at military installations. This report assesses the extent to which OSD and the military services have (1) implemented programs and initiatives to provide service members with access to nutritious food at military installations, (2) overseen such programs and initiatives, and (3) evaluated their effectiveness.

GAO reviewed policies, guidance, and program documentation. GAO also reviewed operations at 19 dining facilities; held five discussion groups with service members; and interviewed officials from DOD, the military services, and eight installations.

What GAO Recommends

GAO is making 16 recommendations, including for the services to establish nutrition program guidance, DOD to clarify or adjust leadership roles, DOD and the services to develop oversight processes and checklists, and DOD to establish goals and metrics. GAO provided a draft of this report to DOD. DOD did not provide comments.

View [GAO-24-106155](#). For more information, contact Alissa H. Czyz at (202) 512-3058 or czyza@gao.gov.

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What GAO Found

The Office of the Secretary of Defense (OSD) and the military services have taken steps to implement a color-coded nutrition labeling program and related initiatives. However, the 19 dining facilities at military installations GAO reviewed had not fully implemented required program elements. For example, GAO observed examples of color and sodium codes that were missing, not standardized, or improperly placed at 14 facilities. Without establishing guidance that addresses steps dining facilities should take to implement all coding program requirements, the services will have reduced assurance that served food is coded, labeled, and presented as the program intended.

Nutrition Coding Description

| |  Green – eat often |  Yellow – eat occasionally |  Red – eat rarely |
|--------------------|--|---|---|
| Description | High performance foods | Moderate performance foods | Low performance foods |
| Processing | Least processed | Some processing | Most processed |
| Nutrients | Whole foods, nutrient packed | Some healthful nutrients | Lowest quality ingredients |
| Fiber | High in fiber | Lower in fiber | Minimal fiber |
| Sugar | Low added sugar | Added sugar/artificial sweeteners | Added sugar/artificial sweeteners |
| Fat | Healthy fats | Poor-quality fats | Excess fats/trans-fat; fried foods |

Source: Uniformed Services University, Consortium for Health and Military Performance, Go for Green® 2.0 Program Requirements (text and icons) and DOD information. | [GAO-24-106155](#)

GAO also found that OSD has not fully addressed congressionally directed efforts to increase access to nutritious food, including the establishment of a nutrition leadership structure, the Defense Feeding and Nutrition Board. According to Department of Defense (DOD) officials, the board's responsibilities will include directing policy, procedures, and nutrition efforts. These officials also told GAO that DOD has faced delays in its attempts to establish the board because of lack of consensus on which entities should lead it. Clarifying and adjusting leadership responsibilities, as needed, could help DOD establish the board and ensure it is adequately empowered to direct these efforts.

OSD and the services oversee aspects of nutrition programs and initiatives through semiannual meetings, menu reviews, and facility assessments. However, OSD has not conducted separate annual reviews of the military departments' nutrition programs and policies, required since 2014. Without a process to execute its required oversight reviews, DOD lacks reasonable assurance that its nutrition programs are functioning as intended. Further, service oversight assessments of nutrition labeling programs do not address all program elements. By using a required tool and revising inspection checklists, the Army and the other services, respectively, will be better positioned to identify and remediate issues that inhibit program implementation.

OSD and the military services use several mechanisms to collect feedback on food options, including surveys and comment cards. However, they have not established strategic goals, performance goals, and performance metrics. Doing so will better position OSD and the services to evaluate existing and future nutrition programs and initiatives and assess progress toward goals.

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Abbreviations

| | |
|---------|---|
| ASD(HA) | Assistant Secretary of Defense for Health Affairs |
| DOD | Department of Defense |
| m-NEAT | Military Nutrition Environment Assessment Tool |
| OSD | Office of the Secretary of Defense |

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June 24, 2024

Congressional Committees

Poor health and nutrition are growing challenges that pose a threat to U.S. military readiness and resilience, according to the Department of Defense (DOD).¹ In July 2022, DOD reported that 24 percent of active duty service members experienced some level of food insecurity in 2019, as defined by the U.S. Department of Agriculture. Specifically, 14 percent of service members reported experiencing low food security, defined as reduced quality, variety, or desirability of diet, while another 10 percent reported experiencing very low food security, defined as multiple indications of disrupted eating patterns and reduced food intake.²

It is DOD policy to provide military service members with appropriate nutrition to help ensure that they can achieve and maintain performance. DOD accomplishes this through various food service operations, which share a common mission to feed military personnel high-quality food in a cost-effective manner. To meet this mission, DOD relies on dining facilities that are funded with appropriated amounts at military installations worldwide.³ These facilities are principally intended to feed junior enlisted service members who reside in military barracks and use meal card entitlements.⁴ DOD supplements its appropriated fund dining facilities with food venues that are generally not funded with appropriated amounts, known as nonappropriated fund food venues. These venues,

¹Department of Defense, HBI Support Team, *The Healthy Base Initiative: Demonstrating How Healthy Eating, Active Living, and Tobacco Cessation Can Improve the Recruitment, Retention, Readiness, and Resilience of the Military Community*, prepared by the Department of Defense and the Department of Homeland Security, 2017.

²Office of the Under Secretary for Personnel and Readiness, *Strengthening Food Security in the Force: Strategy and Roadmap* (July 2022). This report notes that food security measures economic access to food.

³For the purposes of this report, we refer to military service food venues funded by appropriated amounts as dining facilities, which are generally operated by DOD. Each military service refers to its dining facilities differently. Specifically, the Army has warrior restaurants; the Marine Corps has mess halls; the Navy has galleys; and the Air Force and Space Force have dining facilities.

⁴Junior enlisted service members receive meal card entitlements as part of the Essential Station Messing program, which provides meals at the government's expense to those service members who live in single quarters on-base and who are placed in essential station messing status by their commanders.

which generate revenue, include officer clubs and commercial restaurants.

DOD has undertaken a range of initiatives to improve the overall health and fitness of military service members, including through better nutrition. For example, in 2008, the Uniformed Services University's Consortium for Health and Military Performance introduced the Go for Green® program to improve the nutrition of food and beverage offerings at dining facilities across the military services.⁵ Additionally, in 2011, a DOD working group developed the Military Nutrition Environment Assessment Tool (m-NEAT) to help assess installation nutrition environments, including both appropriated dining facilities and nonappropriated fund food venues.⁶

In March 2022, we reported on DOD's food service programs, finding that the military services do not comprehensively assess how the different dining options at the installation level provide healthy meals to service members.⁷ We made 11 recommendations, including that the services establish a requirement for food program officials to assess the efficiency and effectiveness of installation-wide food programs in providing healthy meals to service members with a meal entitlement. As of January 2024, DOD had implemented two of our recommendations and taken some steps to implement the remaining nine.⁸

The Joint Explanatory Statement accompanying the National Defense Authorization Act for Fiscal Year 2022 includes a provision for us to review the quality and nutrition of food available to members of the U.S.

⁵The Consortium for Health and Military Performance is one of the military health system's Centers of Excellence, which are intended to advance scientific knowledge and evidence-based practices within DOD. The consortium conducts research on nutrition, among other topics, and has been involved in research, development, and assessment of military service nutrition programs.

⁶The Military Nutrition Environment Working Group is a component of the DOD Nutrition Committee's Subcommittee on Food and Nutrition, and, according to officials, collaborates with nutrition stakeholders to refine the m-NEAT, which became operational in 2018. The Consortium for Health and Military Performance currently houses the website with the tool and data submitted by installations.

⁷GAO, *Food Program: DOD Should Formalize Its Process for Revising Food Ingredients and Better Track Dining Facility Use and Costs*, [GAO-22-103949](#) (Washington, D.C.: Mar. 24, 2022).

⁸The Army implemented our recommendation to conduct assessments of the effectiveness and efficiency of its installation-wide food programs, and the Under Secretary of Defense (Comptroller) established clear and consistent definitions of key terms for use in reporting subsistence-related budgetary information.

Armed Forces at military installations.⁹ This report assesses the extent to which the Office of the Secretary of Defense (OSD) and the military services have (1) implemented programs and initiatives to provide service members with access to nutritious food at military installations, (2) conducted oversight of nutrition programs and initiatives, and (3) evaluated the effectiveness of nutrition programs and initiatives.

To address our first objective, we assessed DOD efforts to implement nutrition programs and initiatives against DOD policies, congressional direction, and internal control standards related to risk assessment, control activities, and monitoring.¹⁰ As part of that effort, we reviewed congressional direction, federal regulations, and DOD and military department program guidance and documentation on food service programs.

To address our second objective, we reviewed OSD and military service oversight processes such as biannual committee meetings, military nutrition environment assessments, menu reviews, and dining facility assessments. We assessed these processes against DOD and military department policies and internal control standards related to control activities and monitoring to determine the extent to which OSD and the services conducted oversight.¹¹

⁹Joint Explanatory Statement accompanying the National Defense Authorization Act for Fiscal Year 2022, 167 Cong. Rec. H7295 (daily ed. Dec. 7, 2021). The Armed Forces include the Army, Marine Corps, Navy, Air Force, Space Force, and Coast Guard. We did not include the Coast Guard in the scope of this review because the Coast Guard is not discussed in DOD Manual 1338.10, *DOD Food Service Program* (Aug. 26, 2022). We also excluded Space Force because its food service policy and operations fall under the Air Force, according to Air Force officials.

¹⁰H.R. Rep. No. 117-88, at 58 (2021); H.R. Rep. No. 116-453, at 66 (2020); and H.R. Rep. No. 116-84, at 62 (2019). DOD Manual 1338.10, *DOD Food Service Program* (Aug. 26, 2022). Department of the Army, Pamphlet 30-22, *Operating Procedures for the Army Food Program* (July 17, 2019); Department of the Navy, Marine Corps Order 10110.14N, *Marine Corps Food Service and Subsistence Program* (Mar. 7, 2018); Department of the Navy, Commander, Naval Supply Systems Command, Release of the Naval Supply Systems Command Publication 486 – Food Service Management General Messes Vol. I & II, Revision 9 (Nov. 16, 2020); Air Force Instruction 48-103, *Health Promotion* (Jun. 21, 2019); and Air Force Manual 34-240, *Appropriated Fund (APF) Food Service Program Management* (Apr. 19, 2019). GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 2014). H.R. No. 117-88, at 58 (2021); H.R. No. 116-453, at 66 (2020); and H.R. No. 116-84, at 62 (2019).

¹¹[GAO-14-704G](#).

To address our third objective, we reviewed DOD and service documentation of appropriated fund food service feedback mechanisms and compared those against DOD requirements. We also reviewed DOD documentation to identify any strategic goals, performance goals, and performance metrics. We compared these efforts against DOD requirements, leading practices identified in our prior work, and internal control standards related to control activities, information and communication, and monitoring.¹²

For all objectives, we interviewed relevant DOD and military service officials regarding food service and nutrition policies, procedures, and responsibilities. We also selected a nongeneralizable sample of eight installations across the military services for in-depth review. We selected the eight installations based on factors including location, size, and active duty population to reflect a range of associated characteristics. We interviewed key staff—such as food program managers and installation dietitians—at all eight installations. We conducted in-person tours at six installations and virtual visits at two installations to observe food service operations and nutrition labeling at 20 different dining facilities.¹³ We also conducted five nongeneralizable discussion groups at the installations we visited to obtain service member perspectives about the quality and accessibility of food. We asked installations to identify enlisted service members who had eaten at a dining facility in the past 12 months and who were from various work units and geographic locations to participate in the discussion groups. Appendix I provides a detailed description of our objectives, scope, and methodology.

We conducted this performance audit from July 2022 to June 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹²GAO, *Evidence-Based Policymaking: Practices to Help Manage and Assess the Results of Federal Efforts*, [GAO-23-105460](#) (Washington, D.C.: July 12, 2023); [GAO-14-704G](#).

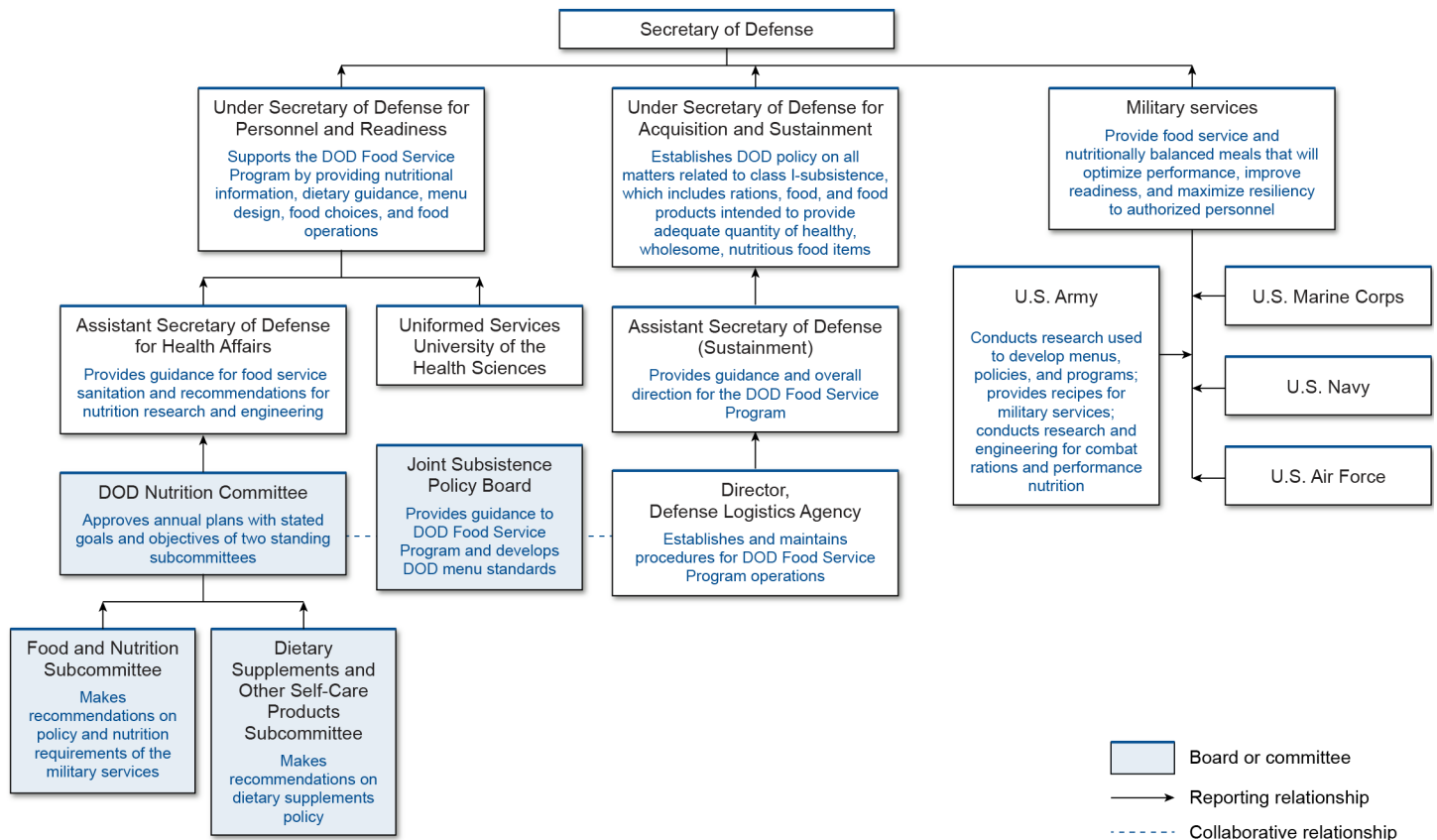
¹³We assessed the presence of nutrition program elements by comparing guidance to our observations at 19 of the 20 dining facilities.

Background

DOD Roles and Responsibilities for Nutrition Programs

Several elements in OSD, the military services, and other DOD components have roles and responsibilities associated with nutrition policy, programs, and related research and education (see fig. 1).

Figure 1: Department of Defense’s Nutrition Policy, Programs, and Research Roles and Responsibilities



Source: GAO presentation of Department of Defense (DOD) information. | GAO-24-106155

Specifically, the following organizations have key roles and responsibilities in establishing and implementing food program policies related to nutrition.

- The Assistant Secretary of Defense for Health Affairs (ASD(HA)) is responsible for conducting annual assessments of the military services’ nutrition environment and standards, as well as annual reviews of all nutrition programs, policies, and processes related to

appropriated fund dining facilities. ASD(HA) also participates in or provides recommendations to other groups whose scope of work includes nutrition, including the Joint Subsistence Policy Board and the DOD Combat Feeding Research and Engineering Board.¹⁴ Finally, ASD(HA) chairs the DOD Nutrition Committee.¹⁵

- The DOD Nutrition Committee was established by DOD policy in February 2011 as a joint effort to identify and recommend nutrition research priorities and support nutrition education programs. The committee's membership comprises representatives with a professional interest and expertise in nutrition, health promotion, combat feeding, and military food service programs. As of January 2024, the DOD Nutrition Committee members included representatives from Office of the Assistant Secretary of Defense for Research and Engineering; the Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs; the Army, Navy, and Air Force Surgeons General; the Defense Health Agency; and the Uniformed Service's University Consortium for Health and Military Performance.
- The Director of the Defense Logistics Agency is responsible for providing subsistence product procurement, management, and distribution support to the military services using DOD nutrition standards. The Director also establishes DOD Food Service Program procedures for applying the Food Cost Index to ensure that the amounts that the military services budget for and expend to feed

¹⁴The DOD Combat Feeding Research and Engineering Board was established to conduct research, development, testing, and engineering related to combat feeding. Combat feeding is the process of feeding warfighters when they are deployed to conduct, support, or train for combat operations, including the food, equipment, and systems necessary to support that process. Board members include representatives from the Army, Marine Corps, Navy, Air Force, Space Force, Defense Logistics Agency, and the Joint Staff. Department of Defense Directive 3235.02E, *DOD Combat Feeding Research and Engineering Program* (Apr. 6, 2021).

¹⁵Department of Defense Manual 1338.10, *DOD Food Service Program* (Aug. 26, 2022); Department of Defense Instruction 6130.05, *DOD Nutrition Committee* (Feb. 18, 2011) (incorporating change 2, effective Apr. 1, 2020).

military members three meals a day—referred to as the basic daily food allowance—provide for nutritious meals.¹⁶

- The military services operate the DOD Food Service Program, described below, overseeing menu standards and development, providing nutrition education and training, and providing healthy food choices in appropriated fund dining facilities in accordance with DOD menu standards. The military services are also responsible for developing plans, policies, and programs to manage the DOD Food Service Program within their services. The Department of the Army has additional food service and nutrition-specific responsibilities as the executive agent of the DOD Combat Feeding Research and Engineering Program and maintains a military nutrition research capability for development and evaluation of nutritional requirements for operational conditions.¹⁷
- The Consortium for Health and Military Performance is a Defense Center of Excellence at the Uniformed Services University of the Health Sciences. The consortium conducts nutrition and other research related to Total Force Fitness—a readiness framework established by the Chairman of the Joint Chiefs of Staff in 2011 that includes nutritional fitness—with the goal of improving the performance and resilience of military service members and their families. In partnership with the DOD Food and Nutrition Subcommittee’s working groups, the consortium also developed and assesses the Go for Green® nutrition labeling program and m-NEAT.

Military Service Food Programs

Each military service manages and operates its own food program based on DOD and service policies and procedures. The military services’ food programs are primarily intended to feed enlisted service members through appropriated dining facilities. Installations generally operate between one and 15 dining facilities. Some services operate their dining facilities through regional contracts with food service companies, while other services operate dining facilities with uniformed personnel. Food

¹⁶The Food Cost Index is a prescribed list of food items, measurements, and quantities that represent the allowance for 100 rations (i.e., the amount of food required to feed 100 military personnel three meals a day). The Basic Daily Food Allowance is the amount of money allocated to dining facilities for each service member’s ration for each day on active duty. The Department of Defense Manual 1338.10, *DOD Food Service Program*, authorizes services to distribute supplemental food allowances when they determine it is necessary to increase nutrition for the higher caloric expenditures of active military populations based on mission-driven needs.

¹⁷For example, according to Army research officials, a series of trials in the field showed that female soldiers in military training and operations had low iron levels, which led to a change in the nutritional standards for operational rations.

program operations at specific installations may vary depending on the installation's mission. For example, Army training installations may limit soda and dessert options for trainees or offer operating hours based on the training schedule.

Army food program. The Army operates dining facilities, which it calls warrior restaurants, and provides satellite food service venues to support units on its installations worldwide. Military personnel or local contractors generally operate the dining facilities. Officials told us that as of May 2024, the Army operated 146 warrior restaurants in the continental United States and 54 warrior restaurants outside the continental United States.

Marine Corps food program. The Marine Corps operates dining facilities, which it calls mess halls, at installations worldwide through the Marine Corps Food Service and Subsistence Program. As of May 2024, the Marine Corps had 47 mess halls in the continental United States that, according to officials, operated under two regional food service contracts. Uniformed military personnel operate another 16 mess halls located outside the continental United States.

Navy food program. The Navy operates dining facilities, referred to as galleys, at Navy installations (ashore) in addition to providing meals to its service members at sea (afloat). Military personnel operate the galleys. According to Navy data, as of March 2023, the Navy operated 28 galleys in the continental United States and 13 galleys outside the continental United States.

Air Force food programs. The Air Force operates two food service programs: Food 2.0 and traditional, which the Air Force refers to as a legacy program. The Food 2.0 program is distinguished by two key features: (1) allowing civilians, families, and retirees to eat in the dining facilities, and (2) instituting a "campus dining" concept. Campus dining expands dining options by authorizing service members who receive meal card entitlements to eat at both designated nonappropriated fund food venues, described below, and installation dining facilities. According to Air Force officials, Food 2.0 dining facilities are run under regional contracts with large food service management corporations, while legacy dining facilities are run by uniformed personnel or local contractors. As of May 2024, the Air Force had 110 dining facilities on 76 installations, according to Air Force officials. Twenty-eight of those installations offer Food 2.0, and the program is under development at an additional seven installations.

Nonappropriated Fund Food Venues

In addition to the dining facilities, the military services provide service members with access to meals at nonappropriated fund food venues that generate revenue and are generally self-supporting. Nonappropriated fund food venues include commercial restaurants, snack bars, bowling centers, and golf course restaurants. These venues are part of the military services' Morale, Welfare, and Recreation programs, intended to support service members and their families by promoting general well-being and quality of life. They are governed by Morale, Welfare, and Recreation and Resale policies, which are generally separate from DOD food service policies.¹⁸ Therefore, nonappropriated fund food venues are not subject to the same nutritional requirements as appropriated dining facilities.¹⁹ However, restaurants and similar retail food establishments that are part of a chain with 20 or more locations are required to display calorie information for standard menu items on menus and menu boards and provide written nutrition information upon request.²⁰

DOD Has Not Fully Implemented or Developed Key Nutrition Programs and Initiatives for Appropriated and Nonappropriated Fund Food

DOD has taken steps to implement a key nutrition labeling program at its appropriated fund dining facilities, along with a range of key nutrition initiatives. However, selected installations have not fully implemented the labeling program, and OSD has not fully addressed congressional directives on food transformation, including the establishment of a nutrition leadership structure. Further, OSD and the services have limited nutrition programs and initiatives for nonappropriated fund food venues.

¹⁸Department of Defense Instruction 4105.67 *Nonappropriated Fund (NAF) Procurement Policy and Procedure* (Feb. 26, 2014); Army Regulation 215.1, *Military Morale, Welfare and Recreation Programs and Nonappropriated Fund Instrumentalities* (Aug. 15, 2015); Secretary of the Navy Instruction 1700.12A, *Operation of Morale, Welfare and Recreation Activities* (July 15, 2005); and Air Force Instruction 34-101, *Air Force Morale, Welfare and Recreation and Use Eligibility* (Mar. 7, 2022).

¹⁹Defense commissaries, which comprise a worldwide chain of stores that provide groceries and household goods to their patrons at reduced prices, are also not subject to the same nutrition requirements as appropriated dining facilities. The Defense Commissary Agency, which manages commissaries, is funded by both annual appropriations and revenue from the sale of goods, managed in a working capital fund. A working capital fund is a type of revolving fund that operates as a self-supporting entity that conducts a regular cycle of businesslike activities.

²⁰21 C.F.R. § 101.11.

OSD and the Military Services Have Taken Some Steps to Implement a Key Nutrition Labeling Program and Nutrition Initiatives

OSD and the military services have taken steps to implement a color-coded nutrition labeling program, along with several related initiatives including nutritious recipes, buyers' guides that specify food purchasing guidelines, and rotational menus at appropriated fund dining facilities.

Steps to Implement Key Nutrition Labeling Program

Each of the military services has adopted a color-coded nutrition labeling program at its appropriated dining facilities. Specifically, the Army, the Navy, and the Air Force are implementing Go for Green®—a performance-nutrition program intended to optimize performance, health, and readiness. The Marine Corps is implementing its variant, Fueled to Fight®, which incorporates the same program elements and coding approach, with exception to sodium content.²¹

The Uniformed Services University's Consortium for Health and Military Performance, in coordination with a subcommittee of the DOD Nutrition Committee, first created Go for Green® in 2008 as a joint-service performance nutrition initiative to help promote better food and beverage selection at military installations.²² The Consortium subsequently rebranded the program between 2014 and 2016 as Go for Green® 2.0 after incorporating lessons learned and health promotion best practices related to marketing, food placement strategy, and food promotion strategy.²³

Both the Go for Green® and Fueled to Fight® programs feature green, yellow, and red labeling to signify the proportion of saturated and total fats, fiber, sugar, and overall processing and preparation for individual




²¹Marine Corps officials told us that the Marine Corps does not limit sodium intake because sodium can improve endurance. As a result, the Marine Corps omits the Go for Green® saltshaker from its Fueled to Fight® labels.

²²The Consortium for Health and Military Performance translates human performance optimization research for military operational applications and the DOD policy environment. It is operated from the Uniformed Services University of the Health Sciences, which is a health sciences university overseen by the Assistant Secretary of Defense for Health Affairs.

²³Because officials told us that all services are implementing Go for Green® 2.0, we refer to the program as Go for Green® throughout this report.

food choices. Figure 2 describes the color-coded labels assigned to each menu item. See appendix II for the complete food coding algorithm.

Figure 2: Go for Green® and Fueled to Fight® Coding Description

| |  Green – eat often |  Yellow – eat occasionally |  Red – eat rarely |
|--------------------|--|---|---|
| Description | High performance foods | Moderate performance foods | Low performance foods |
| Processing | Least processed | Some processing | Most processed |
| Nutrients | Whole foods, nutrient packed | Some healthful nutrients | Lowest quality ingredients |
| Fiber | High in fiber | Lower in fiber | Minimal fiber |
| Sugar | Low added sugar | Added sugar or artificial sweeteners | Added sugar or artificial sweeteners |
| Fat | Healthy fats | Poor-quality fats | Excess fats or trans-fat; fried foods |

Source: Uniformed Services University, Consortium for Health and Military Performance, Go for Green® 2.0 Program Requirements (text and icons) and Department of Defense information. | GAO-24-106155

Go for Green® guidance includes eight required program elements. The elements cover coding; the placement and promotion of food by color-coded label; the minimum and maximum number of green- and red-coded items, respectively; the minimum number of trained supervisory and non-supervisory staff at a facility; and program education and marketing. See table 1.

Table 1: Go for Green® Program Elements

| Program element | Description |
|--|---|
| 1. Standardized dissemination through training | Requires food program leadership at the service headquarters and installation levels, including contracted operations, to attend the Go for Green® program requirements training. |
| 2. Food and beverage coding based on approved criteria | Requires military services to adopt a standard set of criteria for assigning nutritional and sodium codes with associated quality control measures to ensure codes are consistently assigned by certified staff. Go for Green's® calculator and associated algorithm are incorporated as a potential method of assigning both nutritional and sodium codes. |
| 3. Menu coding goals | Requires that dining facilities provide a minimum of green-coded food items and, in some circumstances, a maximum of red-coded items. |
| 4. Standardized display of color and sodium codes | Requires that dining facilities display Go for Green® approved food and beverage cards with the associated nutritional code and sodium level near all foods and beverages. |
| 5. Food placement strategies | Requires that dining facilities display items by their Go for Green® color code with green-coded items on the line first, followed by yellow-coded ones, then red-coded items, with some exceptions. |
| 6. Promotion of green-coded foods | Requires that dining facilities actively promote green-colored foods with signage daily and whenever a new green-coded menu item is added. |

| | |
|--|---|
| 7. Marketing and education | Requires that dining facilities display permanent marketing materials, rotate them every 3-4 months, and actively promote the program through social media, press releases, and articles. |
| 8. Staff training at the dining facility level | Requires dining facilities to ensure that at least 80 percent of all staff are trained at any given time. |

Source: GAO analysis of Department of Defense information. | GAO-24-106155

Note: Go for Green® program documentation states that the U.S. Marine Corps will use the name Fueled to Fight® and that all related nutritional program elements, implementation guidance, and criteria will be aligned with Go for Green®.

To implement this program, the services have developed processes for coding recipes using nutritional criteria and labeling menu items with standardized display cards showing the assigned the nutritional color code. For example, Army officials told us installation and service dietitians or food service staff input ingredients and nutrient data—such as preparation method, trans fat, calories, fiber, and sugar—into a calculator to determine codes for individual menu items.²⁴ These steps constitute the minimum requirements for compliance with DOD’s Food Service Program Manual, which was updated in August 2022 with nutrition-oriented requirements for the military services’ appropriated food programs and revised menu standards.²⁵

Key Initiatives

OSD and the military services have also undertaken a range of initiatives to improve access to nutritious food at installations. For example, Army officials told us the Army’s Combat Capabilities Development Command led an initiative to increase the number of nutritious recipes available to all military services and dining facilities across the department—from approximately 1600 recipes to 2400 between 2017 and 2021. Those officials stated the initiative also transformed the composition of recipes, which are housed in the Armed Forces Recipe Service database, from approximately 20 percent coded green to approximately 40 percent coded

²⁴The Go for Green® coding algorithm is included in appendix II.

²⁵Department of Defense Manual 1338.10, *DOD Food Service Program* (Aug. 26, 2022). Menu standards are DOD’s minimum practical guidelines that military food service programs are to use during menu planning, food procurement, food preparation, and meal service to support the nutrition standards. DOD subsistence-related groups and agencies, including the military services, use the menu standards to develop service-level guidance and the military service buyers’ guides. Appendix III summarizes the menu standards DOD requires each component to offer by category on dining facility menus.

green.²⁶ Navy dining facilities currently offer menus based solely on these recipes, while Army and Air Force officials told us their installations use these and locally developed recipes.

Separately, the military services, in coordination with the Defense Logistics Agency, published updated buyers' guides—purchasing guidelines that list food item quality and nutritional specifications based on DOD's menu standards. The service-specific guides are intended to enable greater purchasing power and food quality. For example, between 2017 and 2022, the Army Food Service Program updated its buyer's guide to incorporate new nutrition requirements for dairy products, sodium, and cuts of meat that Army installations can purchase from approved vendors.²⁷

Additionally, each military service has taken steps to implement standardized rotational menus to ensure that all dining facilities meet basic nutrition standards for every meal period while remaining within the budgetary constraints of the Basic Daily Food Allowance.²⁸ Standardization occurs at either the service or regional level. As part of the standardization process, food service program offices develop common menus for all installations to implement during specific periods of time, between 21- and 28-day rotations. As of February 2024, the Marine Corps, Navy, and the Air Force had fully implemented standardized menus, while Army officials said the Army was in the second phase of a four-phase process to implement its standardized rotational menu at all installations. Army installations are currently testing and collecting feedback on the updated recipes. See appendix IV for an example of a rotational menu.

²⁶The Armed Forces Recipe Service is a compendium of high-volume food service recipes written and updated regularly by the Joint Service Recipe Committee and used by military cooks. The repository is available to all services for building their menus and contains key nutrient data and codes associated recipe codes the Go for Green® and Fueled to Fight® initiatives.

²⁷The Defense Logistics Agency approves prime vendors to supply food to installations after audits confirm the quality and that the labeled information meets the standards set in Army Regulation 40-25, *Nutrition and Menu Standards for Human Performance Optimization*, and the services' buyers' guides. Officials from the Defense Logistics Agency estimated that there are approximately 40-45 prime vendors in the United States.

²⁸The Marine Corps uses the Meal Plate Allowance instead of the Basic Daily Food Allowance, which calculates a cost per meal based on consumption and nutrition data.

A Dietitian Approved Fueling Station at a Navy Commissary



Source: GAO. | GAO-24-106155

Separate from the military services, the Defense Commissary Agency offers a labeling system at all installation commissaries. According to officials, the agency developed the system based on principles of nutrition and guidance from the U.S. Department of Agriculture, to indicate which items on the shelves it considers healthy. Additionally, those officials said 174 commissaries offer Dietitian Approved Fueling stations to showcase prepared foods that the Defense Commissary Agency considers good for refueling after a workout. Over 600 items qualify for the fueling station, according to Defense Commissary Agency officials. We observed Dietitian Approved Fueling Stations at the installations we visited, including at a Naval installation commissary in San Diego, California (see sidebar).

Selected Installations Have Not Fully or Consistently Implemented Their Core Nutrition Labeling Program

Dining facilities at the eight installations we reviewed had not fully or consistently implemented Go for Green® or Fueled to Fight®, as required. Specifically, although the 19 dining facilities in our sample that were implementing Go for Green® or Fueled to Fight® had generally implemented program elements related to food and beverage coding, standardized displays, and marketing materials, most facilities had not fully implemented five program elements.²⁹ As discussed, Fueled to Fight® is intended to implement Go for Green® within the Marine Corps, incorporating the same program elements and coding approach, except sodium.

We observed instances of compliance with the following three program elements.

Element 2—Food and beverage coding based on approved criteria.

Each of the 19 relevant dining facilities in our sample served food that was labeled using the Go for Green® or Fueled to Fight® coding system. Go for Green® program guidance states that the services should establish a standardized and consistent approach to assigning nutrition and sodium codes to all items in the dining facility serving area.³⁰ All four services have adopted a coding process and implemented it at the dining facilities in our sample. Specifically, in the Marine Corps, Navy, and Air

²⁹We assessed the implementation of Go for Green® and Fueled to Fight® at 19 dining facilities instead of 20 because one of the facilities in our sample offered a separate performance-based nutrition labeling program that is solely for U.S. Army Special Operations Command Forces.

³⁰The Marine Corps does not require sodium coding for menu items as part of Fueled to Fight®.

Force, trained dietitians perform coding at either headquarters or a regional office and the codes are distributed to installations through a rotational menu. In the Army, installations develop menus are using recipes from the Armed Forces Recipe Service database, which includes the nutrition color code and sodium level for each recipe.³¹

Element 4—Standardized display of color and sodium codes.

Seventeen of 19 relevant dining facilities in our sample used the Go for Green® or Fueled to Fight® standardized food cards. This included one installation that labeled every item using the standardized food cards placed neatly near the menu item. Figure 3 shows examples of standardized food cards at two of the dining facilities we visited.

Figure 3: Examples of Standardized Go for Green® Food Cards



Green

Yellow

Red

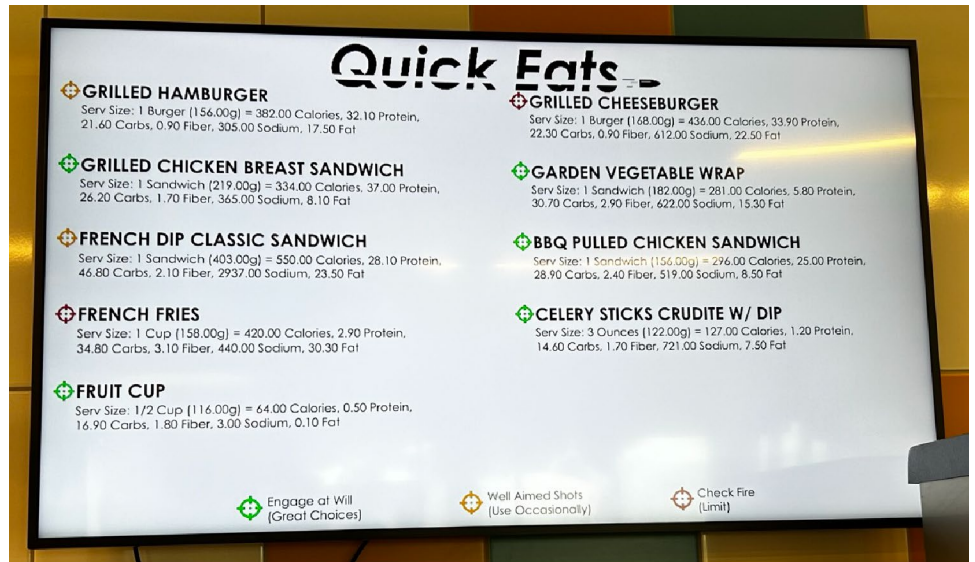
Source: GAO. | GAO-24-106155

Although the Marine Corps uses the same color labeling scheme as Go for Green®, Fueled to Fight® uses a color-coded gun sight symbol to display the nutrition code. These symbols are displayed next to the name of the menu item on a separate sheet or digital display near where the food is served, as shown in figure 4.³²

³¹Army officials told us Training and Doctrine Command develops a rotational menu with color codes that is distributed to training installations. We observed this menu at six dining facilities on two Army training installations.

³²Although the gun sight is not the standardized Go for Green® label, we consider the Marine Corps' use of these symbols evidence of an intent to label items and comply with the standard of having a nutrition-based color-coded label because the colors are based on the same algorithm and the coding explanations align. For example, Fueled to Fight® defines its green code as “engage at will,” while Go for Green® defines its green code as “eat often.”

Figure 4: Example of Standardized Display of Fueled to Fight® Color Codes



Source: GAO. | GAO-24-106155

Element 7—Marketing and education. At each of the 18 relevant dining facilities in our sample, installation food service programs prominently displayed Go for Green® or Fueled to Fight® marketing materials, including posters and table tents, throughout the facility.³³ Go for Green® program guidance states that dining facilities should actively promote the program through print materials such as posters, cards, table tents, and brochures placed prominently around the facility.³⁴ We also observed print materials or digital signboards that explain how to interpret Go for Green® coding, along with healthy eating tips and menu recommendations that aligned with performance nutrition principles.

However, we found that most dining facilities in our sample had not fully implemented five of the eight Go for Green® program elements.

Element 3—Menu coding goals. At 13 of the 19 relevant dining facilities in our sample, we observed examples of food stations that did not meet

³³We did not include one dining facility in this analysis because it was a temporary structure in place while the installation was building a permanent facility.

³⁴Go for Green® program requirements also note that installations should use social media, press releases, articles, and media to promote the program. However, we did not evaluate the installations' use of these forms of media for the sites in our sample because they were not observable during site visits.

the menu coding goals specified in the Go for Green® program guidance.³⁵ This guidance indicates that installations should offer at least one green-coded item and no more than one red coded item for each meal part (i.e., entrée, starch, vegetable) at each meal period served daily, with some exceptions.³⁶ Additionally, dining facility specialty bars like pizza stations and taco bars must offer at least one entrée and one side item that is coded green. Specifically, nine of 19 relevant dining facilities in our sample had at least one station with more than one red item, and eight of 19 dining facilities had at least one station without a green item. For example, at one dining facility, we observed a hot line with five red items, one yellow item, one item that was missing a label, and one green item (see fig. 5, which depicts a portion of that hot line including three red items, one yellow item, and the item missing a label). At the same installation, a breakfast hot line did not include any green-coded items, as required, and four dining facilities had pizza stations that offered only yellow and red-coded options.

³⁵We also observed many examples of food stations that met menu coding goals by offering a sufficient portion of green items and limiting red items.

³⁶Go for Green® menu coding goal guidance allows flexibility for certain meal components. For example, installations with salad bars are allowed to offer three to five red salad toppings and up to three red-coded salad dressings. Additionally, Go for Green® program guidance does not specify a limit for the number of red-coded breakfast entrées, starchy sides, or smoothies. At some stations, such as those with cold sandwiches, installations must offer at least two green-coded items, while the number of red-coded sandwiches is not limited.

Figure 5: Example of a Hot Line That Did Not Meet Menu Coding Goals



Hot line at an Army dining facility with more than one red item.

Source: GAO. | GAO-24-106155

Element 4—Standardized display of color and sodium codes. At 14 of the 19 dining facilities in our sample, we observed examples of color and sodium codes that were missing, inaccurate, not standardized, or improperly placed. Go for Green® program guidance requires installations to display the Go for Green® approved signage near each menu item to display the correct color and sodium codes for all items.

At eight dining facilities, we found menu items on the hot line and salad bar, and beverages in the soda fountain, that were missing labels. Additionally, we observed inaccurate labels at three dining facilities. For example, a dining facility offered a sandwich that was coded red for a 6-inch portion, and coded yellow for a larger 12-inch portion. At the same installation, the labels associated with each menu item did not use the standard Go for Green® labels shown in figure 3. Instead, the label depicted the color coding within a saltshaker symbol filled to different levels next to the item's name on the menu board, as seen in figure 6 below. Unlike the traditional colored card, the saltshaker did not include an explanation of what was being displayed. According to officials, these symbols were developed by a contractor operating the dining facility, based on the contractor staff interpretation of Go for Green®.

Figure 6: Examples of Missing and Nonstandard Nutrition Labels



Missing labels from a hot line at an Army dining facility.

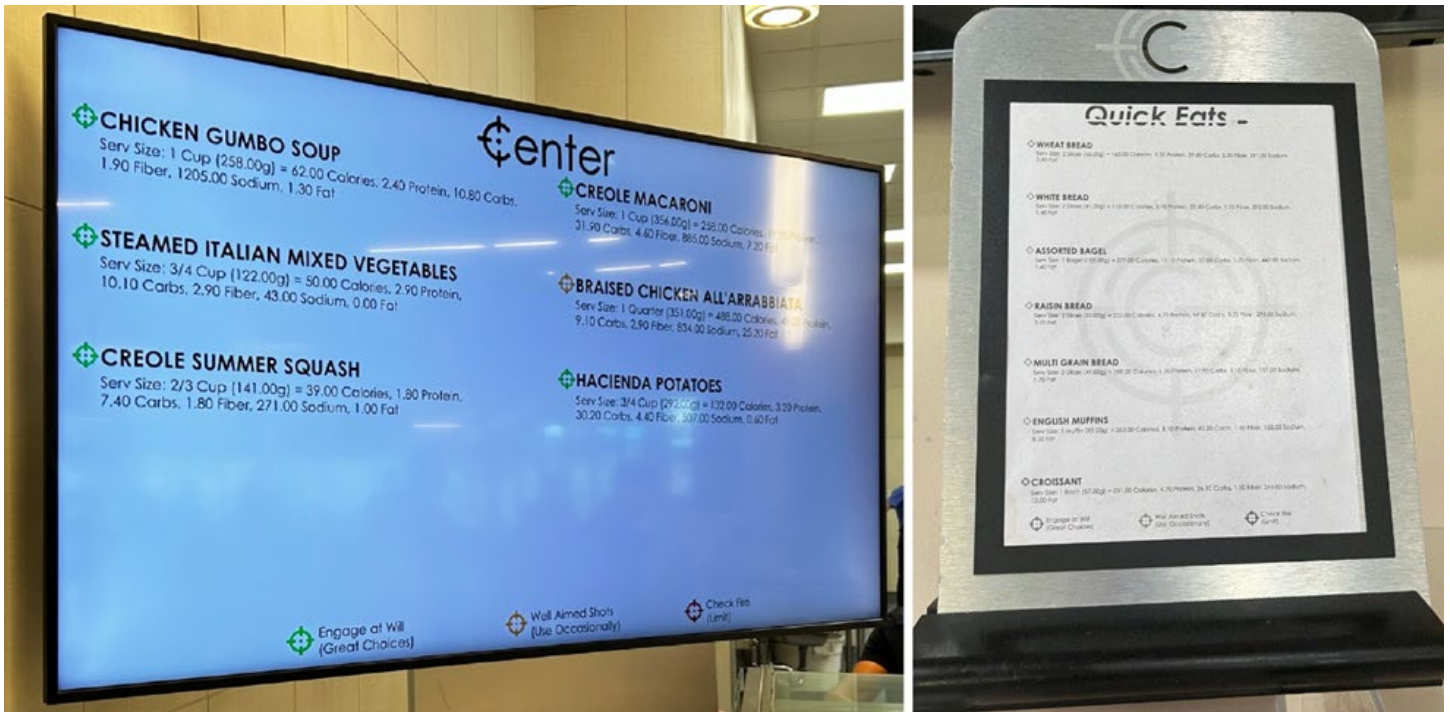
Source: GAO. | GAO-24-106155

| Entrees | Cal | Fat | Sat Fat | Sodium | Fiber | Sugar |
|-------------------------------------|-----|-----|---------|--------|-------|-------|
| Fresh Formed Hamburger 🍷 | 375 | 12 | 3.6 | 586 | 2 | 7 |
| Fresh Formed Cheeseburger 🍷 | 505 | 23 | 7.6 | 766 | 2 | 8 |
| Bourbon Glazed Jalapeno Burger 🍷 | 695 | 36 | 10.6 | 1826 | 3 | 22 |
| Greek Turkey Burger 🍷 | 280 | 10 | 3.5 | 580 | 4 | 5 |
| Santa Fe Black Bean Burger 🍷 | 400 | 17 | 3.5 | 1110 | 11 | 7 |
| Sweet Thai Chili Chicken Sandwich 🍷 | 400 | 21 | 6 | 710 | 2 | 8 |
| Buffalo Chicken Wrap 🍷 | 470 | 16 | 3 | 750 | 6 | 6 |
| Steak Sandwich with Chimichurri 🍷 | 500 | 13 | 4 | 2310 | 5 | 5 |
| Chimichurri Steak Bowl 🍷 | 410 | 16 | 3.5 | 1300 | 8 | 6 |
| Greek Chicken Bowl 🍷 | 380 | 12 | 3 | 510 | 4 | 5 |
| Teriyaki Tofu Bowl 🍷 | 320 | 10 | 1.5 | 990 | 6 | 10 |
| Marinated Flank Steak Entrée 🍷 | 180 | 9 | 3.5 | 1620 | 0 | 1 |
| Chicken Breast Entrée 🍷 | 170 | 8 | 1 | 340 | 0 | 0 |

Colored saltshakers used to symbolize the nutritional value (color) and the sodium content (level of the salt in the shaker) at an Air Force dining facility.

Further, although all five Marine Corps dining facilities we visited used the standardized Fueled to Fight® gun sight symbol to display color codes (see fig. 4), the facilities did not display these near the menu items, as required. Instead, color codes appeared on digital displays on the wall behind a line or printed menus at the front of the line. Since the order of the items on the displays did not match the order in which the items appeared on the line, service members had to make additional efforts to match the color code label to the items. During food service, we also observed the digital displays switch between the menu and other nutrition education information, requiring service members to wait for the screen to cycle back to the menu to read the nutrition labels. Additionally, at one Marine Corps dining facility, the installation had printed the menu in black and white. Since the standardized Marine Corps color code does not include a symbol that corresponds with each color code to indicate the nutritional value like the standardized Go for Green® cards, a service member could not discern the nutritional value of the menu items from a menu printed in black and white. Examples of these observations are shown in figure 7.

Figure 7: Examples of Nutrition Code Displays That Did Not Meet Go for Green® Standards at Marine Corps Dining Facilities



Nutrition information not displayed near menu items.

Menu with black and white nutrition codes.

Source: GAO. | GAO-24-106155

Elements 5 and 6—Food placement strategies and promotion of green coded food. At 15 of 18 relevant dining facilities, we observed examples of stations in which the order of items did not follow Go for Green® program guidance—which requires items to be ordered by color with green items appearing first, followed by yellow and then red.³⁷ Placing green-coded items first increases visibility and prompts service members to choose high-performance food, according to Go for Green® program guidance. In addition, Go for Green® requires installations to promote green coded items through additional signage. However, menu items at 15 dining facilities were not ordered by color code. For example, in figure 8, the yellow- and green-coded items alternate. In addition, only one of 17 relevant dining facilities promoted a green-coded entrée during the meal period, which food service personnel accomplished by

³⁷We excluded one dining facility from the total of 19 facilities that we reviewed because food service workers had not begun setting out food items for lunch service.

displaying a sample plate in a visible location at the beginning of the hot line.

Figure 8: Example of Navy Dining Facility Station That Did Not Place Items in Order from Green to Red

Example of actual placement of items on the hot line



Actual placement of items on the hot line



Go for Green® recommended placement of items on the hot line



✓ Eat often (green) ▲ Eat occasionally (yellow) ✗ Eat rarely (red) ● Low Sodium ○ Medium Sodium ○ High Sodium

Source: GAO analysis of Go for Green® program guidance; U.S. Navy (photo). | GAO-24-106155

Element 8—Staff training at the dining facility level. At 16 of the 19 dining facilities in our sample, food service program officials told us that food service staff had not been trained on Go for Green® or Fueled to Fight®, as required. Go for Green® program guidance requires that at least 80 percent of a dining facility’s staff are trained on program requirements at a given time. For example, food service managers at one installation told us dining facility staff had not received training on Go for Green®, while another told us that the installation used a “train the trainer” method by ensuring one staff member took the Go for Green® training and then shared their knowledge with other staff through on the job training.

While the results of our site visits are not generalizable to all DOD installations, we reviewed additional DOD and service documentation that likewise indicates the inconsistent implementation of Go for Green®.

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- Between 2017 and 2019, the Uniformed Services University’s Consortium for Health and Military Performance conducted a program evaluation of Go for Green® implementation at two dining facilities on two Army installations in the continental United States.³⁸ The evaluation found, among other things, that menu items served did not align with the planned menu and that frequent recipe substitutions affected program compliance. In these instances, dining facilities were missing green items or substituted a green or yellow item with one that was less nutritious. In other cases, dining facilities were found to be using outdated recipes with ingredients and preparation techniques that made the items less healthy than the stated nutrition code suggested.
 - A 2022 Army report assessing Go for Green® implementation at two installations found that adherence to program elements for menu coding goals, marketing, and the promotion of green-coded items was below the 75 percent benchmark.³⁹ Additionally, a 2022 Army memorandum documenting trends in assistance visits—which the services conduct as part of their food service oversight, as discussed later—stated that 41 percent of installations visited did not meet nutrition standards.⁴⁰ In particular, menus at those installations did not match the dietitian-approved menu and Go for Green® food cards were either inaccurate or not displayed.
 - A 2023 Navy regional food service preassessment for one of the sites in our sample found that the menu did not reflect the correct color codes and sodium levels in accordance with the Go for Green® program and that one of the stations did not contain a green-coded

³⁸The Uniformed Services University used its Go for Green® 2.0 Program Fidelity Assessment tool to assess how closely installations follow Go for Green® program requirements and the related effect of the program on meal quality and diner satisfaction. Data were collected from two dining facilities at two installations between 2017 and 2019. See Katie Kirkpatrick, Carolyn Kleinberger, Elizabeth Moylan, Asma Bukhari, and Patricia Deuster. “Nutrition Program Fidelity Assessment tool: a framework for optimizing implementation in military dining facilities.” *Public Health Nutrition*, vol. 26, no. 1, (2022) 219–228.

³⁹The study examined the Army’s fidelity to the Go for Green® program guidance and the impact of the program on service member food choices. Data were collected from 100 service members at two Army installations between 2017 and 2022. See U.S. Army Research Institute of Environmental Medicine, *Effectiveness of Go for Green® Nutrition Program to Improve Warfighter Meal Quality and Nutrition Knowledge* (Natick, Mass.: U.S. Army Medical Research and Development Command, 2022).

⁴⁰The Army examined installation compliance with regulations AR30-22 and DAPam 30-22 at 22 installations visited. See Department of the Army Joint Culinary Center of Excellence, *FY22 Food Management Assistance Visit Trends Analysis* (2022).

item. An official from the installation told us that the labels and electronic menu board did not match the menu and that the installation took corrective action right away by verifying the color coding with Navy guidance and correcting the labels. Additionally, that official said that supervisors would verify coding prior to meal service moving forward. However, we noted a related instance of non-compliance at this installation.

DOD's Food Service Program Manual requires the military services to aid diners in selecting nutritionally balanced meals by presenting color-coded nutrition labels for food choices at appropriated fund dining facilities. In addition, DOD-wide nutrition standards require the services to establish and implement policies to ensure that menus meet nutrition standards, including standards for color-coded nutritional labeling in Go for Green®.⁴¹ *Standards for Internal Control in the Federal Government* calls for management to define objectives clearly to enable the identification of risks, including defining objectives in specific terms so that they are understood at all levels of the entity. The standards further state that management should implement control activities through policies that document each unit's responsibility for operational processes.⁴²

However, we found that while the military services have established food service policies that include some guidance to implement Go for Green® nutrition coding and labeling programs, the policies do not consistently address all eight program elements that dining facilities must implement to ensure program fidelity. Specifically, although all service policies address program elements related to food and beverage coding and the use of standardized displays and marketing education, some lack guidance related to staff training, food placement strategies, and menu coding goals. Additionally, as shown in table 2, none of the service policies address the promotion of green coded items, which is notable in relation to our observation that one of the relevant 17 dining facilities in our sample promoted a green coded item.

⁴¹Army Regulation 40-25/OPNAVINST 10110.1/MCO 10110.49/AFI 44-141, *Medical Services: Nutrition and Menu Standards for Human Performance Optimization* (Jan. 3, 2017). This regulation defines the nutritional responsibilities of the Surgeons General of the Army, the Navy, and the Air Force.

⁴²GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 2014).

Table 2: Presence of Go for Green® Program Elements in Military Service Food Service Policies

| Program element | Army | Marine Corps ^a | Navy | Air Force |
|--|------|---------------------------|------|-----------|
| 1 - Standardized dissemination through training ^b | ✓ | ☒ | ✓ | ✓ |
| 2 - Food and beverage coding based on approved criteria | ✓ | ✓ | ✓ | ✓ |
| 3 - Menu coding goals ^c | ✓ | ✓ | ✓ | ☒ |
| 4 - Standardized display of color and sodium codes | ✓ | ✓ | ✓ | ✓ |
| 5 - Food placement strategies | ☒ | ✓ | ✓ | ✓ |
| 6 - Promotion of green-coded items | ☒ | ☒ | ☒ | ☒ |
| 7 - Marketing and education | ✓ | ✓ | ✓ | ✓ |
| 8 - Staff Training at the Dining Facility Level | ✓ | ☒ | ✓ | ☒ |

✓ This symbol indicates the Go for Green® program element is present in the service food policies.

☒ This symbol indicates the Go for Green® program element is not present in the service food policies.

Source: GAO analysis of military service and other Department of Defense information. | GAO-24-106155.

Note: The military service policies include Department of the Army, Pamphlet 30-22, *Operating Procedures for the Army Food Program* (July 17, 2019); Department of the Navy, Marine Corps Order 10110.14N, *Marine Corps Food Service and Subsistence Program* (Mar. 7, 2018); Department of the Navy, Commander, Naval Supply Systems Command, *Food Service Management General Messes Vol. I & II*, Naval Supply Systems Command Publication 486, Revision 9 (Nov. 16, 2020); Air Force Instruction 48-103, *Health Promotion* (Jun. 21, 2109); Air Force Manual 34-240, *Appropriated Fund (APF) Food Service Program Management* (Apr. 19, 2019). Our analysis was also based on other Department of Defense information, such as Air Force worldwide menu guidance.

^aWe did not assess Go for Green® program element 1, standardized dissemination through training, in our site visit observations because the training records are maintained outside the installations and therefore not observable. However, we did assess this element in our review of military service policies.

^bWe assessed the Marine Corps Fueled to Fight® nutrition requirements against Go for Green® program elements because the Go for Green® program guidance states that the two programs are synonymous and all nutritional program requirements/implementation guidance will be aligned.

^cArmy policy references menu coding goals by setting minimum requirements for green-coded items. However, it does not limit the number of red-coded items, as does Go for Green® program guidance.

Army, Marine Corps, and Navy officials told us they are implementing Go for Green® but consider certain program elements to be best practices or optional rather than requirements. For example, officials from the Army’s Joint Culinary Center of Excellence—the focal point for policy and training in the Army food program—told us the Army does not enforce requirements for green-coded items at every station or the promotion of green-coded items. Similarly, Marine Corps officials told us it is not necessary to train all dining facility staff on Go for Green® since the Marine Corps dietitian centrally manages menu development and recipe coding and that information is available to the contractors operating dining facilities at installations in the continental United States. Navy dietitians told us they simplified some of the Go for Green® requirements in their guidance to make implementation more manageable at installations and on naval ships. Separately, Air Force food service officials told us they

are confident installations are implementing Go for Green® but are not able to meet all program elements at every meal period and that some installations, particularly those following Food 2.0, are better at executing Go for Green® than others.

However, service officials' perspectives notwithstanding, Go for Green® program guidance states that all program elements should be implemented in order to maintain the fidelity of the program, and officials from ASD(HA) and the Uniformed Services University told us that the services agreed on all eight Go for Green® program elements in 2017 and should be implementing them. Without establishing guidance that addresses what steps military service dining facilities should take to implement each of the required Go for Green® program elements in their respective coding programs, the facilities may not implement Go for Green® and Fueled to Fight® as intended. This reduces assurance that served food meets minimum nutrition standards and is coded, labeled, and presented in accordance with program requirements. Such inconsistency may also contribute to suboptimal food choices and service member confusion or distrust in the labeling programs. For example, service members in four of our five discussion groups stated that they did not trust the accuracy of nutrition labels and therefore did not use them to make their food selections.

OSD Has Addressed Some, but Not All, Congressional Directives on Food Transformation

We found that OSD has not fully addressed recent congressionally directed food transformation efforts. House reports accompanying the 2020, 2021, and 2022 defense appropriations bills directed DOD to submit reports to the congressional defense committees describing the department's food transformation efforts.⁴³ Additionally, the House report accompanying the 2022 Department of Defense appropriations bill directed DOD to provide leadership for its food transformation efforts by establishing a food transformation unit, known as 'the cell.'⁴⁴ The cell is to be composed of subject matter experts in food service operations who possess knowledge of healthy food delivery systems and an understanding of department food service laws and policies. The report further directed the cell to prepare a plan for improving on-base accessibility to healthy food—leveraging leading university and private-

⁴³H.R. Rep. No. 117-88, at 58-59 (2021) (accompanying H.R. 4432, Department of Defense Appropriations Bill, 2022); H.R. Rep. No. 116-453, at 66-67 (2020) (accompanying H.R. 7617, Department of Defense Appropriations Bill, 2021), H.R. Rep. No. 116-84, at 62 (2019) (accompanying H.R. 2968 Department of Defense Appropriations Bill, 2020).

⁴⁴H.R. Rep. No. 117-35, at 58 (2021).

sector dining practices, along with DOD food service transformation lessons learned.⁴⁵ It also encouraged the department to use its plan to conduct demonstration pilots at two installations per service.⁴⁶

These congressional directives followed two notable internal DOD recommendations related to nutrition. In 2018, the Joint Requirements Oversight Council recommended that DOD review and propose necessary revisions to policies related to nutrition.⁴⁷ The Council found that there was no coordinating body to conduct the review and subsequently requested in 2020 that OSD establish a leadership structure to coordinate nutrition efforts across the military services.⁴⁸ Our prior work has similarly shown that it is important for agencies to designate a leader or leaders to be responsible for implementing reform efforts.⁴⁹

DOD has addressed some of the congressional directives. Specifically, in 2020, 2021, and 2023, ASD(HA) developed and submitted to Congress three food transformation reports, which described ongoing nutrition initiatives within the department in accordance with congressional

⁴⁵One example we identified of lessons learned is the Healthy Base Initiative, which was a short-term demonstration project that aimed to address the recruitment, retention, readiness, and resiliency challenges associated with poor health, obesity, lack of physical fitness, and tobacco use. The initiative—initiated in 2014 at 14 sites, including 12 military installations and two defense agencies—sought to identify interventions that could help achieve a healthy, fit force and empower members of the military community to make better nutrition choices. The resulting report stated that the initiative was a first step in the department’s long-term effort to address on-base nutrition and that improving health will require leadership at all levels, increased collaboration within DOD and with outside organizations, and a commitment to applying robust measurement and evaluation.

⁴⁶The House report stated that, where appropriate, pilot sites should partner with the local community to improve the food environment and encourage smart eating. The goal of each pilot should be to develop and test appropriate business models that increase the availability, affordability, and acceptability of healthy performance foods. Each pilot should also include expansion of the use of the meal card by service members at exchange-controlled food locations and morale, welfare, and recreation-controlled food locations.

⁴⁷The Joint Requirements Oversight Council serves as a statutory council to the Chairman of the Joint Chiefs of Staff that fulfills Title 10 responsibilities and assists in establishing and approving joint performance requirements, reviewing and validating proposed joint military capabilities, and addressing other matters assigned by the President or Secretary of Defense.

⁴⁸Defense Health Agency, *Recommendation to Close Total Force Fitness (TFF) DCR Joint Requirements Oversight Council Memorandum (JROCM) 073-18, Action Twenty-Seven* (Sept. 30, 2020).

⁴⁹GAO, *Government Reorganization: Key Questions to Assess Agency Reform Efforts*, [GAO-18-427](#) (Washington, D.C.: June 13, 2018).

direction. Each report identified DOD's efforts to transform the food environment across five sectors: food acquisition, food preparation, food delivery and access, nutrition education, and research and assessment. These efforts include policy changes that promote nutrition, and programs and initiatives, such as updating service buyers' guides, standardizing menus, and using food trucks to supplement dining facilities. The reports also stated that no single DOD leadership structure oversees nutrition policy and food service operations. Further, the 2021 report states that a single governance board is key to enable the development of a strategic plan for future work.

As of February 2024, DOD has not addressed the congressional directive to establish a leadership cell for food transformation. In May 2022, the Secretary of Defense committed to establishing the leadership cell by September 2022. ASD(HA) officials told us they have drafted a charter for the food transformation cell, provisionally known as the Defense Feeding and Nutrition Board, which DOD intends to lead its nutrition and food transformation efforts. According to these officials, the Defense Feeding and Nutrition Board will develop policy, procedures, and programming, as well as direct organizational and structural reform, among other responsibilities. However, DOD has faced challenges in establishing the board, as discussed later.

Additionally, as of February 2024, officials told us DOD has not addressed the congressional directive to prepare a plan for improving on-base access to healthy food. An official from the Office of Military Family and Community Policy told us the office is leading an unchartered group of military service food policy stakeholders in reviewing installation dining facility hours and access to healthy food options, per a July 2022 requirement from the Office of the Under Secretary of Defense for Personnel and Readiness. According to cognizant officials, this study could inform the department's plan for improving access to nutritious food. As of March 2023, these officials also said the office was in the process of collecting data from the military services needed to complete the review.

Further, DOD stated in a December 2023 update to Strengthening Food Security in the Force that it has launched a qualitative study at 10 installations in the continental United States to meet with service members and families to learn more about their experiences and challenges with food security. DOD expects this effort will help focus and inform future policies and programs that will help the military community

address and prevent food security issues.⁵⁰ However, while related, these actions do not constitute a plan for improving on-base access to healthy food. Further, per congressional direction, the leadership cell is to prepare the plan for improving on-base access to healthy food. Figure 9 shows the timeline of congressional direction to DOD on nutrition and food, along with DOD's corresponding actions.

Figure 9: Timeline of Congressional Direction and DOD Actions



Congressional directions

- ASD(HA) Assistant Secretary of Defense for Health Affairs
- JROC Joint Requirements Oversight Council
- OUSD(P&R) Office of the Under Secretary of Defense for Personnel and Readiness
- OUSD(A&S) Office of the Under Secretary of Defense for Acquisition and Sustainment

Source: GAO analysis of information from Committee Reports and Department of Defense (DOD) briefing materials. | GAO-24-106155

^aHearing held on May 11, 2022, by the Appropriations Committee, Subcommittee on Defense, U.S. House of Representatives.

Service members we spoke with during our discussion groups cited challenges in accessing nutritious food; these challenges underscore the importance of the congressionally directed leadership structure and access plan. For example, during three of our five discussion groups,

⁵⁰Office of the Under Secretary of Defense for Personnel and Readiness, *Strengthening Food Security in the Force: Building on our Progress* (Dec. 2023).

service members told us that limited operating hours make it difficult to visit dining facilities where they can access healthy food. Specifically, soldiers at an Army installation told us dining facilities were not always open when advertised and were not always located near their workstations, making it hard to reach them without transportation (see appendix V for reported operating hours of the dining facilities at the installations in our sample). Similarly, at an Army training installation, soldiers told us the dining facilities had long lines during unit-prescribed meal periods, especially lunch, and that the availability of entrée and protein sources was often limited by the time the lines cleared.

Relatedly, the results of an annual department-wide survey administered in 2022 indicate that dining facility usage was low by single active duty service members living on base, with these service members frequenting dining facilities for 5 meals per week, on average. Of those, 38 percent reported they do not eat at the dining facility because they do not have enough time, 28 percent reported that the lines at the dining facility are too long to wait, and 26 percent reported that there is no dining facility available on base.

Some of the installations we visited have taken steps to address challenges related to service members' access to nutritious food. However, we found that such efforts were limited to specific dining facilities, did not align with a broader access strategy, and did not incorporate nutrition coding and labeling. For example, an Army dining facility sold prepackaged to-go boxes so that service members could take a meal to eat later. Additionally, a Marine Corps dining facility we visited had established drive-through and walk-up windows so that service members could purchase food outside of traditional meal periods with a meal card. When we raised the observation that items available at the window were not labeled in accordance with Fueled to Fight®, Marine Corps officials told us the items available at the windows should have included labeling since they were funded by appropriations.

Figure 10 shows examples of efforts to increase access to food at selected installations.

Figure 10: Examples of Military Service Efforts to Increase Access to Nutritious Food at Selected Installations



A pre-packaged to-go meal at an Army base.



A food truck distributing food at an Army base.



A walk-up window serving food at a Marine Corps base.

Source: GAO (left and right) and U.S. Army (middle). | GAO-24-106155

Note: We observed a food truck similar to the one shown at an Army installation we visited.

While ASD(HA) has made efforts to establish a food transformation cell in response to congressional directives to the Secretary of Defense, department officials have expressed different views about which entities should lead the Defense Feeding and Nutrition Board. This has resulted in delays in the board's establishment, which we reported that DOD started to establish in early 2019.⁵¹ Specifically, ASD(HA) officials told us the Under Secretary of Defense for Acquisition and Sustainment has declined to co-chair the board.

According to documentation provided by ASD(HA) officials, the board will need to coordinate both nutrition, which falls under ASD(HA) responsibilities, and food service operations, which are Acquisition and Sustainment's responsibility. Acquisition and Sustainment is responsible for subsistence policy and oversees the Defense Logistics Agency, which is responsible for procuring and delivering to installations food items that are requested and ordered by the services to meet nutritional standards specified in their respective buyers' guides. Therefore, Acquisition and Sustainment's reluctance to co-chair could leave a gap in board leadership.

An official from Acquisition and Sustainment told us the Defense Feeding and Nutrition Board overlaps with the existing DOD Nutrition Committee and therefore Acquisition and Sustainment does not feel it necessary for the office to co-chair the new board. However, according to documentation provided by ASD(HA) officials, they found the DOD

⁵¹[GAO-22-103949](#).

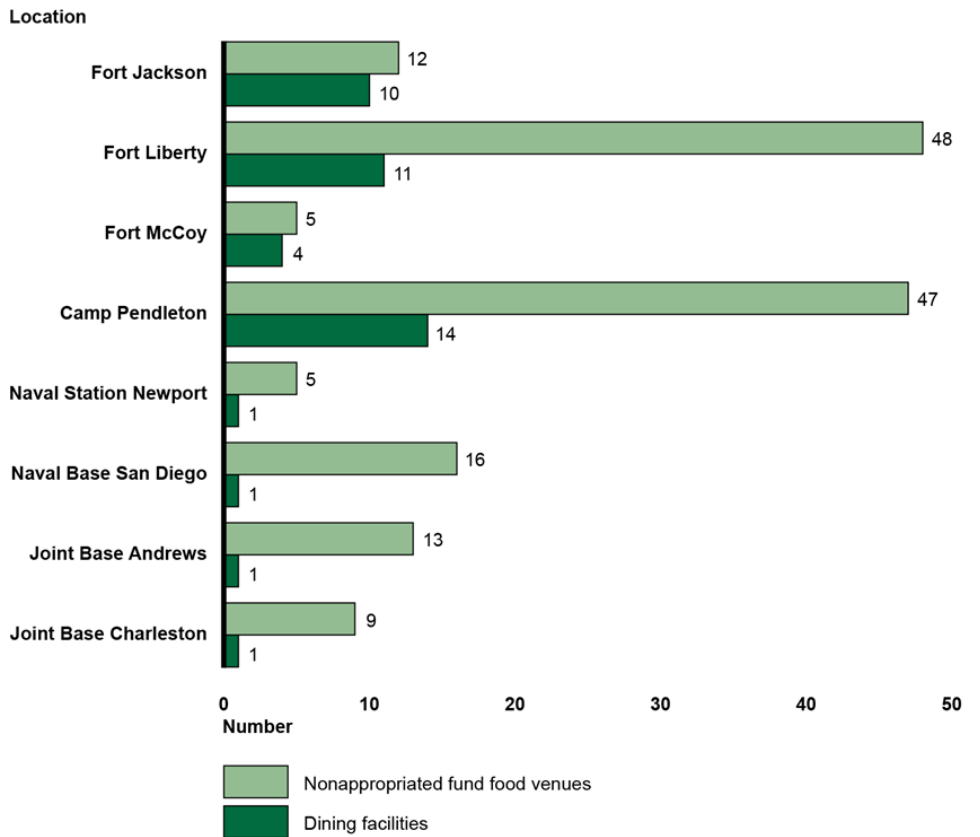
Nutrition Committee to have insufficient expertise and influence on DOD food operations. The documentation further stated that the committee was limited in its ability to direct the many parts of the fragmented DOD food system without input from subject matter experts on the logistics of feeding. In the meantime, DOD has continued to face delays in establishing and assigning leadership responsibilities for the board and therefore lacks the direction and momentum needed to fully develop and oversee food transformation efforts, including its plan to improve on-base accessibility to healthy food.

By evaluating and, as needed, clarifying and adjusting responsibilities for leadership of the forthcoming Defense Feeding and Nutrition Board, the Secretary of Defense can help ensure that the board is established in a timely manner. Such actions can also help ensure the board is adequately empowered to direct and oversee food transformation efforts and establish the congressionally directed plan to improve service members' access to nutritious food, in coordination with the Under Secretary of Defense for Personnel and Readiness.

OSD and the Services Have Limited Nutrition Programs and Initiatives for Nonappropriated Fund Food Venues

Nonappropriated fund food venues—such as commercial restaurants and snack bars—constitute a significant source of food available on military installations, but OSD and the services have made limited efforts to develop nutrition programs and initiatives for them. Although DOD does not maintain a comprehensive listing of nonappropriated fund food venues, officials from DOD's Morale, Welfare, Recreation and Resale Policy Directorate estimated that such venues comprise about 75 to 80 percent of food venues on installations. We similarly found that the number of nonappropriated fund food venues at installations in our sample outnumbered appropriated fund dining facilities—in most cases, by a wide margin. For example, one large installation had 47 nonappropriated fund food venues offering service from 5:00 a.m. to midnight, in comparison to 14 dining facilities, most of which closed by 6:00 p.m. Figure 11 compares the number of nonappropriated fund food venues with the number of appropriated dining facilities at the eight installations in our sample.

Figure 11: Number of Nonappropriated Fund Food Venues and Dining Facilities at Selected Department of Defense Installations






Source: GAO analysis of military service data. | GAO-24-106155

Note: We refer to food venues on military installations that are not funded by federal appropriations as nonappropriated fund food venues and to the military services' venues that are funded by appropriations as dining facilities.

Further, during three of our five discussion groups, service members told us they frequent nonappropriated fund food venues when dining facilities are closed or do not offer food they want to eat. Nonappropriated fund food venues may also be more convenient to access depending on the geographical location of a service member's work assignment. Service members participating in three of our discussion groups also said they do not always have enough time to eat at a dining facility due to the distance to the closest facility. For example, two discussion group participants estimated that they must walk 1.5 miles to reach a dining facility from their work site. During our site visits, we observed similar distances between the dining facilities and certain areas of the base that could pose challenges for access during a lunch period.

Although nonappropriated fund food venues make up a large part of the nutrition environment on installations, OSD and the military services have not developed nutrition programs that are specific to these venues. Nonappropriated fund food venues are not subject to Go for Green® requirements, and the services have not developed an alternate nutrition labeling program. Additionally, we found that while OSD, the military services, and other defense agencies have implemented and planned some initiatives to encourage nonappropriated fund food venues to offer more nutritious items, these initiatives are limited in their scope and application.⁵² Figure 12 below provides examples of service efforts to increase access to nutritious food.

Figure 12: Examples of Nutrition Initiatives for Nonappropriated Fund Food Venues

| |  Non-branded |  Branded |  Convenience |
|--------------------|---|--|---|
| Venues | Snack bar, bowling alley, golf course, coffee shop | Fast food, national chain restaurants | Micro-markets ^a , grab and go, vending |
| Initiatives | <ul style="list-style-type: none"> In 2018, the Army issued a policy that requires venues to ensure that 25 percent of their menu consists of healthy items. The Marine Corps set a goal to offer menus with 25 percent healthy items beginning in fiscal year 2025. In 2024, the Marine Corps will participate in a research pilot at one installation to assess the impacts of menu labeling and modifications.^b The Navy is increasing access to lower calorie food items at its food trucks and outposts. As of December 2023, the Air Force plans to ensure that 25 percent of food options are healthy. | <p>According to officials, as of March 2023, the Office of the Deputy Assistant of Defense for Military Community and Family Policy began negotiating contracts with branded companies that provide healthier menu options.</p> <ul style="list-style-type: none"> Officials had not determined what healthier menus might include. Limited to customer preferences and market conditions. | <ul style="list-style-type: none"> As of December 2023, Army and Air Force Exchange Services operated 412 micro-markets on 76 installations. According to officials, at least 15 percent of the options should meet FitPick® criteria developed by the National Automatic Merchandising Association. As of December 2023, the Marine Corps Community Services operates 52 micro-markets offering the “Better4U” assortment of items. One of these markets is executing a pilot to label items with Fueled to Fight® stop-light coding.^b As of December 2023, the Navy Exchange Service Command operated 77 micro-markets at Navy installations and is prototyping one aboard an aircraft carrier. |
| Limitations | The Army and Marine Corps do not comprehensively describe what qualifies as a healthy item, and, according to officials, the Army 25 percent requirements do not apply to branded venues, which constitute a significant proportion of nonappropriated fund food venues. | | None of the services that operate these micro-markets has comprehensively described what is required for a food to be considered healthy. |

Source: GAO analysis of Department of Defense Information; Aleksey/stock.adobe.com (illustrations). | GAO-24-106155

^aMicro-markets offer a variety of products including fresh salads, hummus, fruit, yogurt, milk, and sandwiches in a contactless shopping environment.

^bThe Marine Corps is partnering with the Uniformed Services University Consortium for Health and Military Performance to conduct a 1-year research pilot to explore the feasibility of implementing a

⁵²In general, nonappropriated fund food venues do not define health food or apply nutrition labeling such as the traffic-light color-coding systems used at appropriated fund dining facilities. Some branded venues do include calorie counts and other nutritional information on their menus and websites.

performance nutrition program in nonappropriated fund food venues on selected installations in the continental United States. In this pilot, the Consortium will identify color coding for local menus at snack bars, restaurants, clubs, and micro-markets using Fueled to Fight® criteria, and participating installations will label the menu items and collect sales and revenue data to determine whether labeling had an impact.

DOD's 2014 Healthy Base Initiative stated that all food service outlets, including vending contracts and food programs operated by third parties, need to be part of any effort to create a healthier food environment on base.⁵³ Additionally, a congressional committee directed DOD to develop a plan for improving access to healthy food on installations, including at nonappropriated fund food venues, which are a large component of the food environment. *Standards for Internal Control in the Federal Government* calls for management to define objectives clearly to enable the identification of risks, which involves defining objectives in specific terms so they are understood at all levels of the entity.⁵⁴ Our prior work also has found that agencies benefit from developing strategies that identify actions planned to achieve goals.⁵⁵

Although OSD and the military services have developed some initiatives to address nutrition at nonappropriated fund food venues, these efforts have been limited because DOD has not defined a clear role for nonappropriated fund food venues in providing nutritious food on installations. As a result, these venues—which officials estimate constitute 75-80 percent of the food environment on installations and represent a larger number of venues than dining facilities at the installations in our sample—are not subject to nutrition requirements and are generally excluded from associated food transformation efforts. Additionally, in the absence of a defined role, DOD has not developed a strategy for improving access to nutritious food at nonappropriated fund food venues. A strategy with a clearly defined role for nonappropriated

⁵³Department of Defense, HBI Support Team, *The Healthy Base Initiative: Demonstrating How Healthy Eating, Active Living, and Tobacco Cessation Can Improve the Recruitment, Retention, Readiness, and Resilience of the Military Community*, a report prepared at the request of the Department of Defense and the Department of Homeland Security, 2017. Launched in 2014 at 14 pilot sites, the Healthy Base Initiative was a short-term demonstration project designed to inform DOD's long-term strategy to make healthy living easy for service members and their families. It assessed the health and wellness status of the military community and environments, tested evidence-based initiatives, measured results, and provided lessons and recommendations.

⁵⁴[GAO-14-704G](#).

⁵⁵GAO, *Evidence-Based Policymaking: Practices to Help Manage and Assess the Results of Federal Efforts*, [GAO-23-105460](#) (Washington, D.C.: Jul. 12, 2023).

fund food venues could be a component of the congressionally directed plan for improving on-base access to healthy food previously discussed.

Cognizant OSD, military service, and defense agency officials told us the availability of nutritious items at nonappropriated fund food venues is a concern, but noted the department is reluctant to require nonappropriated fund food venues to offer healthier foods given the potential risk that such a requirement could reduce revenue for these venues. For example, officials from the organizations that oversee the military service exchanges and commissaries, known collectively as the defense resale organizations, told us there is concern within the department that requiring branded venues to offer healthy food may disincentivize private sector companies from partnering with DOD or negatively affect their profits.⁵⁶ Additionally, a recent pilot conducted by the Consortium for Health and Military Performance at the Uniformed Services University found that installation officials who participated in the pilot perceived interventions to improve the military nutrition environment to be difficult due to contracts and profitability concerns. Many nonappropriated fund food venues are also branded restaurants, which the pilot found may be limited in their ability to implement changes to the food environment, such as by labeling food items or changing menus.

We recognize that DOD does not exercise the same degree of control over nonappropriated fund food venues as its own dining facilities and that these venues' revenue-generating models may present challenges to incorporating nutritious food options. However, according to DOD nutrition researchers and military service food program officials, nutrition labeling could be applied to nonappropriated fund food venues in modified form, such as through limited labeling or by removing the requirements to label yellow- and red-coded items. Moreover, DOD's efforts to support the nutrition of service members across the department would benefit from a more comprehensive and consistent approach that encompasses the entire food environment. By defining the role of nonappropriated fund food venues in providing nutritious food on installations and developing a strategy to increase healthy menu options as part of its plan to increase access to healthy food on installations, OSD can help ensure that existing

⁵⁶The defense resale organizations—including the Army and Air Force Exchange Service, the Navy Exchange Service Command, Marine Corps Community Services and the Defense Commissary Agency—enhance the quality of life of uniformed service members by providing reduced-priced groceries and retail goods and services. According to officials, the exchanges manage a portion of the contracts for branded food venues and food courts on DOD installations.

and future food transformation initiatives address access to nutritious food at nonappropriated fund food venues—which play an important role in feeding service members.

OSD and the Services Oversee Aspects of Nutrition Programs and Initiatives, but Gaps Exist

OSD Has Not Conducted Required Assessments of DOD Nutrition Programs

ASD(HA) performs limited oversight of DOD nutrition programs through semiannual meetings of the DOD Nutrition Committee, which ASD(HA) chairs. The committee meetings provide a forum for monitoring the implementation of recommendations to the military services regarding menu design, nutrition research, and nutrition education, among other topics. For example, according to DOD Nutrition Committee members, the committee has advocated for more widespread use of the m-NEAT nutrition environment assessment. ASD(HA) officials stated that the DOD Nutrition Committee is currently OSD's only mechanism for overseeing the department's nutrition programs, and that while the committee can make recommendations, it cannot require the military departments to implement them or make changes to their nutrition policies or practices.

While ASD(HA) performs some oversight of nutrition programs through the DOD Nutrition Committee, it has not yet conducted required annual oversight assessments and reviews of the military departments' dining and eating environments and nutritional standards. Since 2014, DOD guidance has required ASD(HA) to conduct annual assessments and reviews of the military departments' nutrition environment, nutrition programs, and policies.⁵⁷ Specifically, the DOD Food Service Program Manual, updated in 2022, directs ASD(HA) to annually assess each military department's eating environment and nutritional standards and to review all appropriated fund dining facility food and nutrition programs, policies, and related processes. The results of such assessments and reviews, along with any recommended changes, are to be presented to

⁵⁷Department of Defense Manual 1338.10, *DOD Food Service Program* (Dec. 2, 2014); Department of Defense Manual 1338.10, *DOD Food Service Program* (Aug 26, 2022).

the DOD Nutrition Committee and the Joint Subsistence Policy Board.⁵⁸ Further, *Standards for Internal Control in the Federal Government* states that management should design and implement control activities to achieve objectives and respond to risks, and that it should remediate identified deficiencies in the internal control system.⁵⁹

ASD(HA) has not conducted the required annual assessments and reviews because it has not established a process to do so. In October 2023, ASD(HA) officials told us they are considering evaluating certain military service data as one step toward conducting the required annual assessments. However, military service data sources such as m-NEAT assessments and the services' food information management systems may not support the full scope of ASD(HA) oversight responsibilities. For example, data collected through the services' m-NEAT assessments are limited to food policy, food availability, and behavioral design at individual dining venues on installations. The data are not intended to address each military department's nutrition programs and related processes and other aspects of the annual assessments that ASD(HA) is required to perform. Moreover, only Air Force installations conduct m-NEAT assessments on a regular basis (annually).⁶⁰

Further, the military services' food information management systems include limited nutrition information that could be used by ASD(HA) to conduct oversight. For example, according to service officials, the Army, Navy, and Air Force maintain food information systems with recipes and associated nutritional content, but do not include Go for Green® color coding or maintain the ability to run reports that can provide nutrient analysis. In contrast, the Marine Corps uses a nutrition-based information system for food service management that has the capability to aggregate the nutritional content of recipes served within a meal period, day, week, or full rotational menu cycle. That system also includes the color coding of each recipe.

As of February 2024, ASD(HA) officials told us they were unsure as to whether or when they would develop and implement a process that

⁵⁸The Joint Subsistence Policy Board meets annually to provide guidance and direction for the DOD Food Service Program. Its principal members include senior executives or general/flag officers from the Army, Navy, Air Force, Marine Corps, Space Force, ASD(HA), and the Defense Health Agency.

⁵⁹[GAO-14-704G](#).

⁶⁰Air Force Instruction 48-103, *Aerospace Medicine: Health Promotion* (June 21, 2019).

addresses all oversight requirements. Without establishing a process to execute its assigned oversight responsibilities, DOD lacks reasonable assurance that its nutrition programs, policies, and related processes are functioning as intended and may be limited in its ability to identify and help remediate related deficiencies.

Service Oversight Processes Do Not Address Key Nutrition Program Elements

The military services have implemented processes—including menu reviews and periodic assessments—to oversee their Go for Green® nutrition labeling as part of their broader oversight of dining facilities. However, collectively, these processes do not address all Go for Green® program elements.

Menu reviews. Each military service performs dietitian menu reviews to ensure that rotational menus offer minimum nutrition requirements within a meal period. These reviews are to occur periodically, such as monthly or annually before the menus are offered. For example, Naval Supply Systems Command dietitians told us they review 21, 28, or 35-day cyclical menus for compliance with Go for Green® and menu planning guidelines at the beginning of the fiscal year. They said they use a form that assesses the accuracy of Go for Green® color and sodium coding, the variety of fiber sources, and the presence of fruits and vegetables, among other factors. Similarly, Marine Corps officials told us the Marine Corps dietitian reviews the 35-day cyclical menu offered by mess halls at the beginning of the fiscal year to ensure it meets the recommended nutrient intakes. Service dietitians and food service officials also told us they consult with the Defense Logistics Agency dietitian through the Joint Subsistence Policy Board when selecting new or ready-to-use food items with which to build their menus. They said this helps ensure those items meet the nutrition specifications outlined in the service buyers' guides and comply with nutrition standards.

Annual menu reviews address Go for Green® program element 3, menu coding goals, which is intended to steer menus toward more green-coded items and ensure that there is a green-coded item for each meal part. However, menu reviews do not address the other seven program elements such as standardized dissemination through training, standardized display, food-placement strategies, promotion of green-coded foods, marketing and education, and staff training because those can only be monitored at the installation dining facility. Further, food service managers noted that approved menus may change due to the availability of ingredients.

Dining facility assessments. Each military service assesses its dining facilities at least once every 24 months to determine whether food service operations are meeting operational and nutritional standards. These assessments involve the use of required and optional tools, such as checklists or scorecards, with questions and scores based on DOD and service food program requirements, including some that pertain to nutrition.

- **Army.** Army food management assistance teams perform operational reviews of installation food service programs, which can be tailored to meet the requirements or concerns of the installation or activity in areas such as food preparation and menu and nutrition, among others. Assistance teams use a required scorecard that contains questions about nutrition, among other areas, with references to policy requirements, responsible agents, and a rating scale to determine the level of compliance with each question. Visits for these reviews are to occur once every 12-18 months for each installation. According to Army officials, the Army has scheduled assistance visits regularly since September 2023 after experiencing disruptions due to the COVID-19 pandemic. However, Army oversight through these operational reviews does not address Go for Green® nutrition program elements related to standardized dissemination through training and promotion of green-coded items.

In addition, Army food program guidance states that operational reviews should include quality control of the Go for Green® program using the program fidelity assessment tool.⁶¹ The purpose of the tool is to assess whether Go for Green® has been fully implemented, and it outlines benchmarks ranging from 75 to 100 percent for each of the eight program elements. However, Army officials told us the Army does not currently assess the implementation of Go for Green® using the program fidelity assessment tool, as required. Finally, Army officials told us some installations use m-NEAT on an ad hoc basis to assess their nutrition environments.

- **Marine Corps.** Marine Corps food service officers conduct frequent staff visits to dining facilities to ensure that food service operations are complying with orders and directives. Marine Corps guidance also states that officers will conduct, at a minimum, semiannual technical inspections of dining facilities to ensure proper food preparation and

⁶¹Department of the Army, Army Regulation 30-22, *Food Program: Army Food Program* (Jul. 17, 2019).

quality of meals served, among other issues.⁶² The Marine Corps Installations Command also conducts quality assurance and surveillance inspections of roughly five percent of all monthly meal periods at dining facilities to evaluate how the Marine Corps' food service contractor is performing. The required quality assurance and surveillance evaluation guide and corresponding inspection tool contain program goals with performance elements about food preparation and menu compliance that reference some Fueled to Fight® program requirements, such as food and beverage coding and menu coding goals. The inspection tool also contains tallies that provide a rating to determine compliance with Marine Corps food service requirements. However, oversight through these staff visits and quality assurance inspections does not address Go for Green® nutrition program elements related to standardized dissemination through training, food placement strategies, promotion of green-coded items, and staff training at the dining facility level.

In 2022, a Marine Corps installation participated in a pilot study led by the Uniformed Services University's Consortium for Health and Military Performance to assess the military nutrition environment at five installations using a web-based version of the m-NEAT. Further, a Marine Corps official told us six Marine Corps installations will assess nutrition environments using m-NEAT in 2024.

- **Navy.** Navy food management teams provide training and assistance support to afloat and ashore food service operations through assistance visits requested by the command at least once every 24 months.⁶³ These visits are conducted by food management teams using a tool that assesses food production and indicates whether the dining facility met the standard for some of the Go for Green® program elements. However, oversight through food management teams does not address Go for Green® nutrition program elements related to standardized dissemination, promotion of green-coded items, and staff training at the dining facility level. Additionally, Navy officials told us installations use m-NEAT on an ad hoc basis to assess their nutrition environments.
- **Air Force.** Air Force Services Activity performs annual assessments of installations' nutritional environments using m-NEAT to ensure Air

⁶²Marine Corps Order 10110.14N, *Marine Corps Food Service and Subsistence Program* (Mar. 7, 2018).

⁶³Naval Supply Systems Command, Publication 486, vol. I & II, rev.9, *Food Service General Messes* (Nov. 16, 2020).

Force dining facilities label food items in accordance with the Go for Green® criteria.⁶⁴ Additionally, Air Force Services Activity conducts staff assistance visits using a checklist scorecard containing five questions that assess some Go for Green® program elements, in which the facility can score up to 50 points. However, oversight through m-NEAT and staff assistance visits does not address Go for Green® nutrition program elements related to standardized dissemination and menu coding goals.

The DOD Food Service Program Manual states that the military services are required to organize and equip dining facilities with sufficient management oversight to prepare meals and provide food consistent with DOD nutrition standards. Further, military service food program guidance requires each service to periodically assess its food service operations to ensure compliance with nutrition requirements, including Go for Green®. Finally, *Standards for Internal Control in the Federal Government* states that organizations should implement control activities through policies and determine corrective actions.⁶⁵

We found that although the services have implemented processes to evaluate Go for Green®, these processes are not comprehensive because the tools the services use do not include items to assess compliance with all eight Go for Green® and Fueled to Fight® program elements. For example, oversight through m-NEAT does not address Go for Green® nutrition program elements related to standardized dissemination through training, menu coding goals, and standardized display of color and sodium codes. Further, although the Go for Green® Program Fidelity Assessment Tool does address all eight Go for Green® requirements, as shown below, Army officials told us that they had not established a process to implement it because they were not aware of the requirement to do so. Table 3 below demonstrates the extent to which the services' oversight tools incorporate Go for Green® program elements. As previously discussed, we observed gaps in the services' efforts to implement these elements of Go for Green® and Fueled to Fight® during our site visits.

⁶⁴Air Force Instruction 48-103, *Health Promotion* (Jun. 21, 2109); Air Force Manual 34-240, *Appropriated Fund Food (APF) Service Program Management* (Apr. 19, 2019).

⁶⁵[GAO-14-704G](#).

Table 3: Presence of Go for Green® Program Elements in Food Service Oversight Tools

| Program element | Service tools | | | | Additional assessment tools | |
|---|---------------------|-----------------------------|---------------------|--------------------------|--|---|
| | Army oversight tool | Marine Corps oversight tool | Navy oversight tool | Air Force oversight tool | Military Nutrition Environment Assessment Tool (m-NEAT) ^a | Go for Green® Program Fidelity Assessment Tool ^b |
| 1 - Standardized dissemination through training | ☒ | ☒ | ☒ | ☒ | ☒ | ✓ |
| 2 – Food and beverage coding based on approved criteria | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3 – Menu coding goals | ✓ | ✓ | ✓ | ☒ | ☒ | ✓ |
| 4 - Standardized display of color and sodium codes | ✓ | ✓ | ✓ | ✓ | ☒ | ✓ |
| 5 - Food placement strategies | ✓ | ☒ | ✓ | ✓ | ✓ | ✓ |
| 6 - Promotion of green-coded items | ☒ | ☒ | ☒ | ✓ | ✓ | ✓ |
| 7 – Marketing and education | ✓ | ☒ | ✓ | ✓ | ✓ | ✓ |
| 8 – Staff training at the dining facility level | ✓ | ☒ | ☒ | ☒ | ✓ | ✓ |

✓ This symbol indicates the Go for Green® program element is present in the oversight tools.

☒ This symbol indicates the Go for Green® program element is not present in the oversight tools.

Source: GAO analysis of military service information. | GAO-24-106155

^aRequired by Air Force; optional for Army, Marine Corps, and Navy.

^bRequired by Army; available for use by Marine Corps, Navy, and Air Force.

By revising their inspections checklists to include all eight required Go for Green® program elements, the Navy, Marine Corps, and Air Force will be better positioned to identify and remediate issues that prevent the full implementation of their nutrition labeling programs. Similarly, by establishing a process to use the program fidelity tool during dining facility inspections, as required, the Army can better ensure adherence to Go for Green® program requirements and address present and future implementation challenges, including those we identified.

OSD and the Services Collect Some Feedback, but Do Not Fully Assess the Effectiveness of Nutrition Programs and Initiatives

OSD and the military services use several mechanisms to collect evaluative information related to nutrition programs and initiatives. These include surveys and comment cards to solicit service member feedback on the quality of food available in appropriated fund dining facilities, and surveys to collect information on service member nutrition. However, OSD and the military services cannot fully evaluate the effectiveness of their nutrition programs and initiatives because they have not developed related strategic goals, performance goals, and performance metrics.

Feedback mechanisms. OSD collects feedback on food available at military installations through its annual department-wide Status of Forces Survey. The most recent survey, administered in 2022, included questions on food security, the frequency at which service members eat at installation dining facilities, and the reasons service members decide where to obtain their meals.⁶⁶ The results of the 2022 survey indicate that about half of active duty service members who are single and live on base do not eat at a dining facility because they do not like the food. Forty-six percent indicated they eat at home or bring food from home.

Separately, the military services use a variety of other mechanisms—including installation surveys, menu review boards, and comment cards—to collect and analyze service member feedback regarding the quality and availability of food at installation dining facilities. For example, the Interactive Customer Evaluation is a web-based tool to solicit feedback on installation-provided services, including food service operations.⁶⁷ The tool, which can be accessed via a quick response code, includes questions about overall satisfaction, facility appearance, staff attitude, timeliness of service, hours of service, and whether the service met customer needs. There is also a field in which service members can indicate whether they would like a response to their feedback.

⁶⁶The Status of Forces Survey is a personnel program sponsored by the Under Secretary of Defense for Personnel and Readiness and executed by the Office of People Analytics in which DOD conducts web-based surveys annually. These surveys assess the attitudes and opinions of the military community, including active duty and reserve component members, on personnel issues. In 2016, 2018, 2020, and 2022, the survey included questions to assess service members' food insecurity and use of food assistance programs. Additionally, the Office of People Analytics added two questions to the 2022 survey to assess service members access to meals at military installation dining facilities.

⁶⁷DOD's Interactive Customer Evaluations allow customers to provide feedback to the service providers they have encountered at military installations and related facilities around the world.

Military service officials at the installations in our sample confirmed that they receive feedback on dining facility operations using the Interactive Customer Evaluation and respond to service members where appropriate. For example, officials from one Army dining facility told us they received feedback from service members who observe special diets, such as halal and kosher, and took steps to review the planned menu with those members to identify items that meet their dietary needs.

In addition, we observed and military service officials told us about other methods for soliciting service member feedback on the quality and availability of food.

- **Army.** Army food program guidance encourages the establishment of enlisted dining facility advisory councils to advise management on desired adjustments to menus to meet diner preferences.⁶⁸ For example, officials at one Army installation in our sample told us it conducts quarterly dining facility council meetings where soldiers provide feedback about food quality and nutrition to senior leadership. Additionally, officials at two Army installation dining facilities in our sample said they use comment cards to obtain feedback from service members on their overall meal and dining experience and suggestions for improving menu options. Installation food service officials at Fort Jackson, Fort Liberty, and Fort McCoy told us that dining facility feedback from installation Interactive Customer Evaluations is forwarded to food service personnel to address.
- **Marine Corps.** The Marine Corps food and subsistence program guidance states that food management teams will review food service management practices to include, among other things, customer comments.⁶⁹ In accordance with this requirement, officials said the Marine Corps annually sends contracting representatives to each dining facility in the continental United States to survey Marines as a performance component of its food service contract. According to officials, the Marine Corps uses quantitative scores related to food and service quality, among other items, from its feedback surveys as the basis for financial incentives it awards to the contractor that operates most of its dining facilities. Further, the large Marine Corps installation we visited provides service members with the option of

⁶⁸Department of the Army Pamphlet 30-22, *Operating Procedures for the Army Food Program* (July 17, 2019).

⁶⁹Marine Corps Order 10110.14N, *Marine Corps Food Service and Subsistence Program* (Mar. 7, 2018).

using a food service application to submit feedback on their experience at all 15 of its dining facilities.

- **Navy.** Navy guidance for dining facilities both afloat and ashore includes a provision for the establishment of a menu review board, which is made up of customers that provide review and feedback on Navy menus to the food service division.⁷⁰ According to Navy officials, the Navy conducts quarterly menu review board meetings at dining facilities and invites sailors to attend and provide feedback. Additionally, two Navy installations in our sample provide comment cards or distribute customer menu surveys to service members to obtain feedback on their recent experience at Navy galleys or suggestions for improvement.
- **Air Force.** The Air Force manual for appropriated fund food service program management requires the use of a food service customer survey to solicit feedback in all appropriated fund dining facilities. This includes perspectives on service member satisfaction with food options and the meal periods during which they typically eat.⁷¹ Air Force officials told us that the Air Force did not conduct this survey in 2021 because COVID-19 limited the operating hours of many food venues, but that they were preparing to administer the survey to all members who live on an installation in October 2022. Two Air Force installations in our sample also hold quarterly menu review boards in which service members and other patrons can provide input on their dining experience and offer suggestions to adjust menu options.⁷² Additionally, at one Air Force installation we visited, officials demonstrated how service members can submit their feedback on a specific dining facility through a food service application.

Nutrition surveys and evaluations. Separate from feedback, the military services have also implemented surveys to collect information on service-member health and nutrition. According to Army officials, between 2016 and 2019, the Army administered the Military Eating Behavioral Survey to examine military eating habits and factors that influence such behavior. The survey contains questions on service member fitness levels, eating

⁷⁰Naval Supply Systems Command, *Publication 486, vol. I & II, rev.9, Food Service General Messes* (Nov. 16, 2020).

⁷¹Air Force Instruction 48-103, *Health Promotion* (Jun. 21, 2109); Air Force Manual 34-240, *Appropriated Fund Food Service Program Management* (Apr. 19, 2019).

⁷²Officials at one of the two Air Force installations noted that recent menu review board meetings were poorly attended by service members.

habits, meal sources, fruit and vegetable consumption, and knowledge about nutrition. Army officials told us the Army uses the Military Eating Behavioral Survey on an ad hoc basis to measure the outcome of specific projects and research questions. For example, officials stated that the Army used the survey as a mechanism to evaluate the impact of its Holistic Health and Fitness Program at two installations between 2020 and 2022. This program aims to embed additional medical and performance specialists, including dietitians, within a brigade to integrate injury prevention, cognitive performance, nutrition, and fitness programs into all aspects of unit activities.

Similarly, the Air Force compiles data from the Preventative Health Assessment questionnaire, which collects 12 months of health data from service members covering weight, fruit and vegetable consumption, sweetened beverage consumption, and supplement use. The resulting Health and Readiness Optimization report presents this information across four key focus areas including nutrition, physical activity, sleep, and other. According to an Air Force official, the report helps Air Force Health Promotion personnel at an installation target at-risk units using data to inform evidence-based interventions.

Finally, the Uniformed Services University's Consortium for Health and Military Performance conducted a program evaluation of Go for Green® at two installations between 2017 and 2019, with the objective to develop a scoring system to assess adherence to the program. Overall, the results of the program evaluation showed that Go for Green® positively impacted access to and quality of food and beverages at the two installations' dining facilities by offering more nutritious menus, displaying color-coded labels, and marketing and promoting the program.⁷³

Lack of goals and metrics. Although OSD and the military services use several mechanisms to collect service member feedback and nutrition information, they cannot fully evaluate the effectiveness of nutrition programs and initiatives because they lack strategic goals, performance goals, and performance metrics by which to assess progress toward goals. DOD food service policy states that DOD-operated dining facilities are to provide healthy food choices that support service members'

⁷³Kirkpatrick, Kleinberger, Moylan, Bukhari, and Deuster. "Nutrition Program Fidelity Assessment tool," 219–228.

nutritional fitness, while military service policies similarly state that food service programs should provide healthy food options.⁷⁴

According to key practices we identified to assess the effectiveness of federal efforts, management should establish goals to communicate the results agencies seek to achieve to advance their mission, and to allow decision makers, staff, and stakeholders to assess performance by comparing planned and actual results. Specifically, organizations should establish strategic goals that are long term and set a general direction for efforts, along with performance goals that describe a program's near-term results. They should also have quantitative targets against which performance can be measured.⁷⁵

Additionally, the Chairman of the Joint Chiefs of Staff's Total Force Fitness Framework requires leaders of the military services and defense agencies to assess and report nutrition metrics. The framework calls for metrics that are results-oriented and clearly demonstrate progress toward achievable and realistic goals. The framework also states that optimal metrics are those that quantify the availability and consumption of healthy options, and notes that one metric could be the capability of food services to meet the specific energy and nutritional requirements of unit activities.⁷⁶

According to DOD officials, in 2020, DOD transferred the responsibility for coordinating Total Force Fitness from the Office of the Under Secretary of Defense for Personnel and Readiness to the Defense Health Agency, which reports to the Office of the ASD(HA). DOD officials who are stakeholders in nutrition efforts told us that neither the department nor the services have strategic goals, performance goals, or performance metrics

⁷⁴Department of the Army Pamphlet 30-22, *Operating Procedures for the Army Food Program* (July 17, 2019); Department of the Navy, Marine Corps Order 10110.14N, *Marine Corps Food Service and Subsistence Program* (Mar. 7, 2018); Naval Supply Systems Command, *Publication 486 vol. I & II, rev. 9, Food Service General Messes* (Nov. 16, 2020); Air Force Instruction 48-103, *Health Promotion* (June 21, 2019).

⁷⁵GAO, *Evidence-Based Policymaking: Practices to Help Manage and Assess the Results of Federal Efforts*, [GAO-23-105460](#) (Washington, D.C.: July 12, 2023).

⁷⁶Chairman of the Joint Chiefs of Staff Instruction 3405.01, *Chairman's Total Force Fitness Framework*, (Sept. 23, 2013). Total Force Fitness is a readiness framework established by the Chairman of the Joint Chiefs of Staff in 2011. The framework aims to understand, assess, and maintain service members' well-being and ability to carry out missions and consists of eight domains that comprise total fitness, including a nutritional fitness domain. Nutritional fitness is the ability to recognize and select the requisite nutrition to sustain and optimize physical and cognitive performance and health.

for nutrition programs and initiatives due to the lack of department-wide consensus on the purpose of nutrition efforts and appropriate ways to measure their impact.

DOD's Healthy Base Initiative, launched in 2014, was intended to inform the department's long-term strategy for addressing health and wellness challenges in the military community, including nutrition. The initiative concluded, among other things, that metrics to track progress and measure impact of related health and nutrition efforts were extremely important but difficult to develop and apply. This was because installation leads often lacked the knowledge, skills, and capacity to apply metrics and collect the data needed to measure program results and lacked visibility over data collected by other installation programs or offices.⁷⁷ ASD(HA) officials told us that such challenges persist, and noted that the forthcoming Defense Feeding and Nutrition Board may help facilitate the development of such goals and metrics if it is established as a single executive board with the authority to oversee nutrition policy, as envisioned.

By establishing strategic goals, performance goals, and performance metrics, OSD and the military services will be better positioned to evaluate existing and future nutrition programs and initiatives, assess progress toward goals, and determine how to best allocate resources to achieve those goals.

Conclusions

According to DOD, poor health and nutrition are growing challenges that threaten the department's ability to recruit and retain a fit and healthy force. DOD has undertaken a range of initiatives to improve the overall health and fitness of military service members, including through better nutrition. However, gaps limit the department's ability to implement, oversee, and assess the effectiveness of its nutrition programs and initiatives. For example, although OSD and the military services have taken steps to implement a color-coded nutrition labeling program, gaps exist in the implementation of key program elements. Establishing guidance for military service dining facilities to implement each of the required program elements in their respective coding programs could help ensure that served food meets minimum nutrition standards and is coded,

⁷⁷Department of Defense, HBI Support Team, *The Healthy Base Initiative: Demonstrating How Healthy Eating, Active Living, and Tobacco Cessation Can Improve the Recruitment, Retention, Readiness, and Resilience of the Military Community*, prepared at the request of the Department of Defense and the Department of Homeland Security, 2017.

labeled, and presented in accordance with program requirements so that service members can make informed decisions about their diets.

Further, while DOD has addressed some congressional direction, continued delays in establishing and assigning leadership responsibilities for the Defense Feeding and Nutrition Board have prevented critical oversight of food transformation efforts. Evaluating and, as needed, clarifying or adjusting responsibilities for the board's leadership can help ensure the board is established in a timely manner, and that it is adequately empowered to direct and oversee food transformation efforts, including the congressionally directed plan to improve service members' access to nutritious food. Relatedly, by defining the role for nonappropriated fund food venues in providing nutritious food on installations and developing a strategy for improving access to nutritious food at such venues, OSD can help ensure that existing and future transformation efforts address access to nutritious food at nonappropriated fund venues—which play an important role in feeding service members.

In addition, while OSD and the military services oversee aspects of the nutrition programs and initiatives, gaps in these efforts may contribute to related program implementation challenges. Without establishing a process to perform annual oversight assessments of the military department's dining and eating environments and nutritional standards, OSD lacks reasonable assurance that DOD's nutrition programs, policies, and related processes are functioning as intended. Similarly, by establishing a process for installations to use the program fidelity tool, as required, the Army can better ensure adherence to program requirements and address implementation challenges. And by revising their inspections checklists to include all Go for Green® program elements, the Navy, Marine Corps, and Air Force will be better positioned to identify and remediate implementation issues.

Finally, although OSD and the services collect some evaluative information related to their nutrition programs and initiatives, additional efforts are warranted. By establishing strategic goals, performance goals, and performance metrics, OSD and the military services will be better positioned to evaluate existing and future nutrition programs and initiatives, track progress toward goals, and measure performance.

Recommendations for Executive Action

We are making a total of 16 recommendations, including eight to DOD, four to the Navy, and two each to the Army and Air Force.

The Secretary of the Army should establish guidance that addresses what steps dining facilities should take to implement each of the required Go for Green® program elements. (Recommendation 1)

The Secretary of the Navy should ensure the Commandant of the Marine Corps establishes guidance that addresses what steps dining facilities should take to implement each of the required Go for Green® elements in the Marine Corps' Fueled to Fight® program. (Recommendation 2)

The Secretary of the Navy should establish guidance that addresses what steps dining facilities should take to implement each of the required Go for Green® program elements. (Recommendation 3)

The Secretary of the Air Force should establish guidance that addresses what steps dining facilities should take to implement each of the required Go for Green® program elements. (Recommendation 4)

The Secretary of Defense should evaluate and, as needed, clarify or adjust responsibilities for leadership of the forthcoming Defense Feeding and Nutrition Board to guide food transformation efforts. (Recommendation 5)

The Secretary of Defense should ensure the Under Secretary of Defense for Personnel and Readiness, in coordination with the forthcoming Defense Feeding and Nutrition Board, develops the congressionally directed plan to increase access to healthy food on installations. (Recommendation 6)

The Secretary of Defense should ensure the Assistant Secretary of Defense for Health Affairs, in coordination with the forthcoming Defense Feeding and Nutrition Board, defines the role of nonappropriated fund food venues in providing nutritious food on installations. (Recommendation 7)

The Secretary of Defense should ensure the Assistant Secretary of Defense for Health Affairs, in coordination with the forthcoming Defense Feeding and Nutrition Board, develops a strategy for increasing healthy menu options at nonappropriated fund food venues as part of its plan to increase access to healthy food on military installations. (Recommendation 8)

The Secretary of Defense should ensure the Assistant Secretary of Defense for Health Affairs develops a process to annually assess each military department's food environment and nutrition standards, and review all nutrition programs, policies, and related processes. (Recommendation 9)

The Secretary of the Navy should ensure the Commandant of the Marine Corps incorporates all eight Go for Green® nutrition program elements into Marine Corps food service inspections checklists. (Recommendation 10)

The Secretary of the Navy should incorporate all eight Go for Green® nutrition program elements into Navy food service inspection checklists. (Recommendation 11)

The Secretary of the Air Force should incorporate all eight Go for Green® nutrition program elements into Air Force food service inspection checklists. (Recommendation 12)

The Secretary of the Army should develop a process to ensure that all installations use the required Go for Green® program fidelity assessment tool to conduct oversight of the Army food service program. (Recommendation 13)

The Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs, in coordination with the military services, establishes department-wide strategic goals for nutrition programs and initiatives. (Recommendation 14)

The Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs, in coordination with the military services, establishes performance goals that align with strategic goals for nutrition programs and initiatives. (Recommendation 15)

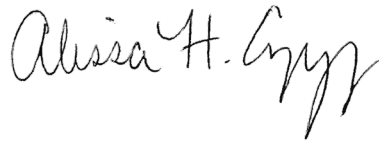
The Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs, in coordination with the military services, establishes performance metrics to assess progress toward nutrition performance goals. (Recommendation 16)

Agency Comments

We provided a draft of this report for review and comment to DOD. DOD did not provide comments on the report.

We are sending copies of this report to the appropriated congressional committees and the Secretary of Defense. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3058 or czyza@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VI.

A handwritten signature in black ink that reads "Alissa H. Czyz". The signature is written in a cursive style with a large, stylized initial 'A'.

Alissa H. Czyz
Director, Defense Capabilities and Management

List of Committees

The Honorable Jack Reed
Chairman
The Honorable Roger Wicker
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Mike Rogers
Chairman
The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

Appendix I: Objectives, Scope, and Methodology

This report assesses the extent to which the Office of the Secretary of Defense (OSD) and the military services have (1) implemented programs and initiatives to provide service members with access to nutritious food at military installations, (2) conducted oversight of nutrition programs and initiatives, and (3) evaluated the effectiveness of nutrition programs and initiatives.

To address our first objective, we assessed Department of Defense (DOD) efforts to implement Go for Green® and Fueled to Fight® nutrition programs and initiatives against congressional direction, DOD policies, and internal control standards related to risk assessment, control activities, and monitoring.¹ As part of that effort, we reviewed congressional direction, regulation, and DOD and military department program guidance and documentation on food service programs. To demonstrate the degree to which each service has incorporated nutrition labeling into its operations, we also assessed the presence of Go for Green® program elements in the Army, Navy, and Air Force nutrition and food service policies, and the application of those elements in the Marine Corps' Fueled to Fight® documentation. To do so, one analyst compared the program elements to the service policies to determine the presence or absence of program elements in the policies. A second analyst verified the conclusions of the first analyst with no disagreements identified.

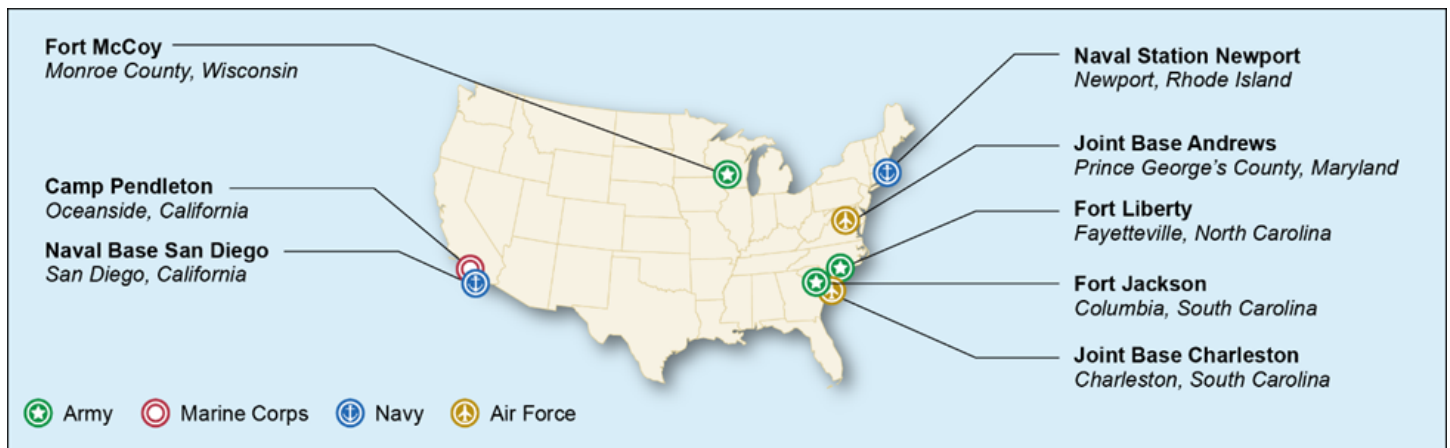
We also selected a nongeneralizable sample of eight installations from each of the military services for an in-depth review.² Because we used a

¹DOD Manual 1338.10, *DOD Food Service Program* (Aug. 26, 2022). Department of the Army, Pamphlet 30-22, *Operating Procedures for the Army Food Program* (July 17, 2019); Department of the Navy, Marine Corps Order 10110.14N, *Marine Corps Food Service and Subsistence Program* (Mar. 7, 2018); Department of the Navy, Commander, Naval Supply Systems Command, *Release of the Naval Supply Systems Command Publication 486 – Food Service Management General Messes Vol. I & II, Revision 9* (Nov. 16, 2020); Air Force Instruction 48-103, *Health Promotion* (Jun. 21, 2019); and Air Force Manual 34-240, *Appropriated Fund (APF) Food Service Program Management* (Apr. 19, 2019). House Report 117-88 accompanying H.R. 4432, *Report of the Committee on Appropriations together with Minority Views, Department of Defense Appropriations Bill (2022)*; House Report 116-453 accompanying H.R. 7617, *Report of the Committee on Appropriations together with Minority Views, Department of Defense Appropriations Bill (2021)*, and House Report 116-84 accompanying H.R. 2968, *Report of the Committee on Appropriations together with Minority Views, Department of Defense Appropriations Bill (2020)*. GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 2014).

²We did not include the Coast Guard in the scope of this review because the Coast Guard is not discussed in DOD Manual 1338.10, *DOD Food Service Program* (Aug. 26, 2022). We also excluded Space Force because its food service policy and operations fall under the Air Force, according to Air Force officials.

nongeneralizable sample to select the installations at which we observed food service operations, our findings cannot be used to make inferences about food service operations at other installations or across DOD. However, we determined that the selection of these sites was appropriate for our design and objectives and that the selection would provide illustrative examples of food service operations and program implementation to support our work. We selected our sample of installations to obtain variance across the following criteria (1) size of active duty population; (2) geographic diversity to account for potential differences in how food services are administered across the country; and (3) size of the installation’s food service program, using the number of appropriated fund dining facilities present as a proxy. We also included an installation in a location that is designated as remote, installations with 24-hour missions that offered midnight meals, and two joint bases. In total, our sample included 20 dining facilities at the eight installations.³ Figure 13 shows the name, location, and service affiliation of the eight installations we selected.

Figure 13: Installations Selected for Nongeneralizable Sample



Source: GAO analysis of Department of Defense data; Map Resources (map). | GAO-24-106155

We interviewed key staff—such as food program managers, food program staff, and installation dietitians—at all eight installations. We

³GAO, *Military Installations: DOD Should Consider Various Support Services when Designating Sites as Remote or Isolated*, GAO-21-276 (Washington, D.C.: July 29, 2021). DOD installations that could be considered remote or isolated often have reduced support services for service members and their dependents, such as limited access to health care and housing options. In April and November 1989, the House Armed Services Committee designated 213 installations as remote or isolated for Morale, Welfare, and Recreation purposes and since then, DOD has assumed responsibility for those designations.

conducted reviews of Fort McCoy and Naval Station Newport virtually by remotely interviewing officials and requesting documentation, including photographs. We conducted the remaining six site visits in-person, during which installations provided tours for us to observe food service operations and nutrition labeling at 18 different dining facilities. Although we scoped the sample based on the appropriated portion of the food environment, we also collected data on the nonappropriated fund dining venues at the selected installations and observed some nonappropriated fund venues at installations we visited in-person.

At 19 of the 20 dining facilities, we assessed the presence of six Go for Green® and Fueled to Fight® program elements by comparing observations to Go for Green® program elements. During site visits, we observed the implementation of color-coded nutrition labeling at a total of 20 dining facilities through physical observations and photographs. To assess the remaining two program elements related to training, we interviewed food service program managers and compared information to Go for Green® and Fueled to Fight® program elements. One of the 20 dining facilities offered a performance-based nutrition labeling program that is specifically for Army Special Operations Forces, called Tactical Human Optimization, Rapid Rehabilitation and Reconditioning.⁴ Although color-coded, this program is not based on the eight Go for Green® program elements and we therefore did not include it in our assessment of nutrition program elements.

To address our second objective, we assessed OSD and military service oversight practices against internal control standards related to control activities and monitoring.⁵ We also assessed OSD and military service oversight processes such as biannual committee meetings, military nutrition environment assessments, menu reviews, and dining facility assessments against DOD and military department policies to determine the extent to which oversight was conducted according to requirements. To assess the extent to which oversight activities address access to nutritious food, we collected oversight tools such as checklists and scorecards from the Army, Marine Corps, Navy, and Air Force, including the installations in our sample, and compared those tools to the Go for Green® program elements. To do so, one analyst compared the program elements to the service oversight tools to determine the presence or

⁴Army Special Operations Forces Policy Number 7-18, *Performance-Based Menu Standards and Guidelines* (Mar. 7, 2018).

⁵[GAO-14-704G](#).

absence of the program elements in the tools. A second analyst verified the conclusions of the first analyst with no disagreements identified.

To address our third objective, we reviewed DOD and service-specific documentation of appropriated food service feedback mechanisms and compared those against DOD requirements. For example, we reviewed the survey instrument and results of relevant questions on DOD's Office of People Analytics Status of Forces Surveys for active duty service members from 2016 through 2022. We identified service requirements and practices for collecting feedback about the quality of food service, including access to nutritious foods, at dining facilities on installations by reviewing Army, Marine Corps, Navy, and Air Force food service policies. In addition, we interviewed service officials at both service headquarters and the installations in our sample.

We also conducted five in-person discussion groups at the installations we visited to obtain illustrative examples of service member perspectives about the quality, nutrition, and accessibility of food at each of the installations. To identify discussion group participants, we asked installations to identify eight to 10 male and female enlisted members who had eaten at a dining facility in the past 12 months from various work units and geographic work locations on base. Each discussion group consisted of four to 14 participants due to the availability of the service members to attend in person while working. We also reviewed DOD documentation of efforts to identify any strategic goals, performance goals, and performance metrics, including Total Force Fitness and Joint Requirements Oversight Council Memoranda. We compared these efforts against DOD requirements and leading practices identified in our prior work and internal control standards related to control activities, information and communication, and monitoring.⁶

For all objectives, we interviewed relevant DOD and military service officials regarding policies, procedures, and responsibilities related to food service and nutrition and determined the extent to which service members were afforded healthy food options at military installations. These include officials from the DOD organizations shown in table 4:

⁶GAO, *Evidence-Based Policymaking: Practices to Help Manage and Assess the Results of Federal Efforts*, [GAO-23-105460](#) (Washington, D.C.: July 12, 2023); [GAO-14-704G](#).

Appendix I: Objectives, Scope, and Methodology

Table 4: Department of Defense (DOD) Organizations Included in Scope

| Organization |
|---|
| • Office of the Under Secretary of Defense for Acquisition and Sustainment |
| • Office of the Assistant Secretary of Defense for Health Affairs |
| • Department of the Army |
| • U.S. Marine Corps |
| • Department of the Navy |
| • Department of the Air Force |
| • Defense Commissary Agency |
| • Defense Logistics Agency |
| • Defense Health Agency |
| • DOD Morale, Welfare, and Recreation and Resale Policy Office |
| • Office of Military Community and Family Policy |
| • Uniformed Services University, Consortium for Health and Military Performance |

Source: GAO. | GAO-24-106155

We conducted this performance audit from July 2022 to June 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Nutrition Coding Algorithm, Beverage, and Sodium Tables

This appendix details the coding algorithm used by all four military services to produce nutrition color codes for menu items for the Go for Green® program, and the Marine Corps' variant Fueled to Fight®. A menu item is coded through a points-based system. Points are assigned across five categories: percent of calories from saturated fat and total fat, fiber, sugar, and processing level. Menu items that score above 9 points are coded as green, while items that score below 5 points are coded as red. Any item that is deep-fried, contains trans fats or monosodium glutamate—a common flavor additive that some studies associate with adverse health impacts—is automatically coded red. This coding algorithm is demonstrated in table 5.

Table 5: Go for Green® and Fueled to Fight® Coding Algorithm

| Component | Value | Possible points |
|--|--|--|
| Preparation | Is the cooking method of the product deep-frying? | No point value: Automatically Red |
| Trans fat | Does the product contain "partially hydrogenated" fat/oil (trans fat)? | No point value: Automatically Red |
| Additives | Does the product contain added monosodium glutamate? | No point value: Automatically Red |
| Percent of calories from saturated fat | Calculate percent of calories from saturated fat or use nutrient analysis. | ≤ 10 percent saturated fat = 2 11-15 percent saturated fat = 1 ≥ 16 percent saturated fat = 0 |
| Percent of calories from total fat | Calculate percent of calories from total fat. *Total fat may be higher than 30 percent and still score 2 points for the select items if the saturated fat is ≤ 10 percent. Items that may qualify for this exception include salmon and salad dressings or condiments made with heart-healthy fats. | ≤ 30 percent total fat* = 2 31 – 49 percent total fat = 1 ≥ 50 percent total fat = 0 |
| Fiber | Grams of fiber per serving | > 6 grams = 3 4 – 6 grams = 2 2 – 3.9 grams = 1 < 2 grams = 0 |
| Sugar | Grams of total sugar per serving | < 12 grams of sugar = 3 12 – 18 grams of sugar = 1 > 18 grams of sugar = 0 |
| Processing | Mostly whole-food ingredients: fresh or frozen vegetables, fresh fruits, nuts, seeds, whole grains, unprocessed meat, poultry, and seafood, canned tomatoes and beans, plain dairy products. Some processed ingredients: canned plain vegetables, canned fruits in juice or water, dehydrated fruits or vegetables, canned soups, meat or poultry injected with solution, uncured deli meats. Moderately to highly processed and/or refined ingredients: refined (white) grains (for example, white bread, rice, and pasta), canned fruits or vegetables with added saturated fat and/or low to moderate amounts of added sugar, nitrates/nitrites, artificial flavors, non-nutritive sweeteners | Mostly whole-food ingredients = 3 Lightly processed, but still of moderate nutritional value = 1 Moderately to highly processed and/or refined ingredients = 0 |

**Appendix II: Nutrition Coding Algorithm,
Beverage, and Sodium Tables**

| Component | Value | Possible points |
|------------------------|-------|---|
| Scoring (total points) | — | Green = 9 – 13 Yellow = 5 – 8 Red = < 5 |

Source: Uniformed Services University. | GAO-24-106155

Go for Green® has a different coding system for beverages which is determined based on the type of drink. Table 6 below shows the distinctions between green, yellow, and red coded beverages.

Table 6: Go for Green® Beverage Table

| Code | Beverages |
|--------|---|
| Green | <ul style="list-style-type: none"> • Water (plain or carbonated) • Naturally flavored water, including fruit/vegetable/herb-infused (no artificial sweeteners) • Herbal tea • Unsweetened iced or hot tea • Unsweetened iced or hot coffee • 100 percent vegetable juice • Milk, unsweetened (skim, 1 percent) • Milk alternatives: soy, almond, rice, unsweetened or plain with added calcium and vitamin D |
| Yellow | <ul style="list-style-type: none"> • Sports drinks • 100 percent fruit juice • Lightly sweetened iced or hot tea • Coffee with small amounts of sugar, cream, or milk • Artificially sweetened beverages (diet or light sodas, tea, juices, and many flavored waters) • Milk, unsweetened (2 percent) • Flavored milk (skim, 1 percent, 2 percent) (vanilla, chocolate, etc.) Flavored milk alternatives: coconut, soy, almond, and rice • Hot chocolate made with water or milk (skim, 1 percent, 2 percent) |
| Red | <ul style="list-style-type: none"> • Energy drinks • Sweet tea • Coffee with large amounts of whole milk or cream and sugars or syrups • Sweetened beverages of any kind (sodas, fruit punches, and juice drinks) • Milk, plain or flavored (whole) • Hot chocolate made with whole milk, cream, or half-and-half |

Source: Uniformed Services University. | GAO-24-106155

The Army, Air Force, and Navy also code menu items based on their sodium content. Thresholds for each sodium code are dependent on the meal part. Full-plate meals and entrées are allowed higher sodium levels while still maintaining a “low” code, while single menu items like a vegetable or a condiment must maintain lower sodium levels to maintain a “low” code. The Marine Corps does not limit sodium intake because

**Appendix II: Nutrition Coding Algorithm,
Beverage, and Sodium Tables**

sodium can improve endurance, according to officials. As a result, the Marine Corps omits the Go for Green® saltshaker from its Fueled to Fight® labels. Table 7 show the thresholds for Go for Green® sodium codes.

Table 7: Go for Green® Sodium Table

| Sodium Content | Low | Moderate | High |
|--|--------------------------------|-----------------------|-------------------|
| Full-Plate Meal ^a | < 800 milligrams | 800 – 1500 milligrams | > 1500 milligrams |
| Entrée ^b (Protein, vegetables, starch) | < 650 milligrams | 650 – 1100 milligrams | > 1100 milligrams |
| Entrée ^b (Protein and vegetables) | <450 milligrams | 450 – 800 milligrams | > 800 milligrams |
| Entrée ^b (Protein and starch (carb)) | <600 milligrams | 600 – 950 milligrams | > 950 milligrams |
| Protein only | < 350 milligrams | 350 – 800 milligrams | > 800 milligrams |
| Grains and Other Starches | < 300 milligrams | 300 – 700 milligrams | > 700 milligrams |
| Vegetables | < 150 milligrams | 150 – 400 milligrams | > 400 milligrams |
| Soup | < 450 milligrams | 450 – 600 milligrams | > 600 milligrams |
| Dairy | < 150 milligrams | 150 – 300 milligrams | > 300 milligrams |
| Condiments, Gravies | < 200 milligrams | 200 – 300 milligrams | > 300 milligrams |
| Dessert | < 300 milligrams | 300 – 600 milligrams | > 600 milligrams |
| Beverages | Will not be labeled for sodium | | |
| Fruits | Will not be labeled for sodium | | |

Source: Uniformed Services University. | GAO-24-106155

^aFull-plate meal includes fruit and dairy.

^bEntrées exclude fruit and dairy.

The military services differ as to the personnel responsible for conducting the coding. In the Navy, Air Force, and Marine Corps, coding is performed by a central office and distributed to installations through a rotational menu. In the Army, menus are designed by installations using pre-coded recipes from the Armed Forces Recipe Service. However, installations do have the discretion to add additional menu items so long as they are coded.

Appendix III: Department of Defense Menu Standards

Table 8 summarizes the menu standards established in the Department of Defense’s (DOD) Food Service Program Manual for specific menu categories.¹ These standards must be implemented by installations in addition to a color-coded labeling system such as Go for Green®.

The DOD Nutrition Committee is to review these standards at least every 3 years.²

Table 8: Department of Defense (DOD) Menu Standards

| Menu category | Menu standard |
|---|---|
| Vegetables | Requires installations offer a minimum of two vegetables, with at least one being non-starchy. Additional requirements include minimum vitamin content per serving, preferred preparation methods, and a preference for fresh over frozen and canned preparation methods. |
| Salad | Requires installations offer at least ten items among a selection of vegetables and nuts, three proteins, and leafy greens with at least 50 percent dark colored leaves. |
| Fruit and fruit juices | Requires installations offer at least three fruit choices. Bananas must always be available at breakfast, along with vitamin C-rich choices, dried fruits, and at least one fruit juice in addition to orange. |
| Grains, starches, breads, cereals, and starchy vegetables | Requires installations offer at least two breads, four cold cereals, one hot cereal, cereal bars, one starch, a variety of legumes, among others with a variety of fiber, calorie, processing, and preparation requirements per type. |
| Meats, entrées, soups, and chilis | Requires installations offer two main entrée choices of no more than 500 calories with at least one using a lean protein in addition to at least one soup or chili at lunch and dinner. Installation should also offer vegetarian options based on demand and availability and serve fish at least three times per week. Ground meats must not exceed 10 percent fat content. |
| Dairy and eggs | Requires installations offer 1 percent, fat free, or skim milk and milk alternatives as a beverage and in recipes, as required, and follow similar standards for other dairy products such as cottage cheese, yogurt, and sour cream. Additionally, installations are required to offer egg products as a source of protein. |
| Beverages | Requires dining facilities offer milk, milk alternatives, water, coffee, tea, juice, and electrolyte beverages that meet DOD standards. Limits the use of sodas and eliminate energy drinks and beverages with over 100 milligrams of caffeine. |
| Solid fats, oils, and sodium | Limits the type and amount of fats and sodium used in preparation of menu items. |

Source: GAO analysis of DOD documentation. | GAO-24-106155

¹Department of Defense Manual 1338.10, *DOD Food Service Program*, (Aug. 26, 2022).

²DOD Manual 1338.10.

Appendix IV: Menu Example

Table 9 shows the menu for each meal period on the first day of a 21-day rotational menu cycle for installations in Navy Region Southwest.¹ The menu follows Go for Green® menu coding goals for all three meals including no more than one red item and at least one green item per meal part (i.e., entrée, starch, side, vegetable). Additionally, the menu demonstrates several Department of Defense (DOD) menu standards, such as the inclusion of two differently colored vegetables (i.e., carrots and asparagus) and offering vegetarian (eggplant parmesan) and fish-based (blackened fish) entrées.² The menu excludes desserts, which are not required by DOD menu standards.

Table 9: Example of a Navy Installation Daily Menu

| Breakfast | Lunch | Dinner |
|--------------------------------|-------------------------------|------------------------------|
| Entrées | | |
| ✓● Vegetarian Sausage Patty | ✓○ Honey Lemon Chicken Breast | ✓● Bean Soup with Ham Hocks |
| ▲○ Griddle Fried Eggs | ✓● Bean Soup with Ham Hocks | ✓● Blackened Fish |
| ▲○ Omelet Bar | ▲○ Braised Beef Cubes | ▲● Baked Macaroni and Cheese |
| ▲○ Hard Cooked Eggs | ▲● Eggplant Parmesan | ▲● Chicken Enchiladas |
| ▲○ Scrambled Eggs | | |
| ▲● Breakfast Burrito | | |
| ▲● Thick Slice French Toast | | |
| X○ Grilled or Oven Fried Bacon | | |
| Starches/Sides | | |
| ✓○ Hot Oatmeal | ▲● Noodles Jefferson | ✓● Spicy Brown Rice Pilaf |
| ▲○ Breakfast Rice | ▲● Kansas City Rice Blend | X● Italian Style Pasta Salad |
| ▲○ Assorted Healthy Cereal | X● Italian Style Pasta Salad | |
| ▲● Hashed Brown Potatoes | | |
| Vegetables | | |
| | ✓○ Roasted Fresh Broccoli | ✓○ Carrot Slices |
| | ✓○ Cole Slaw | ✓○ Sauteed Asparagus |
| | | ✓○ Cole Slaw |

Legend: ✓ = Green; ▲ = Yellow; X = Red; ○ = Low Sodium; ● = Medium Sodium; ● = High Sodium

Source: U.S. Navy Region Southwest. | GAO-24-106155

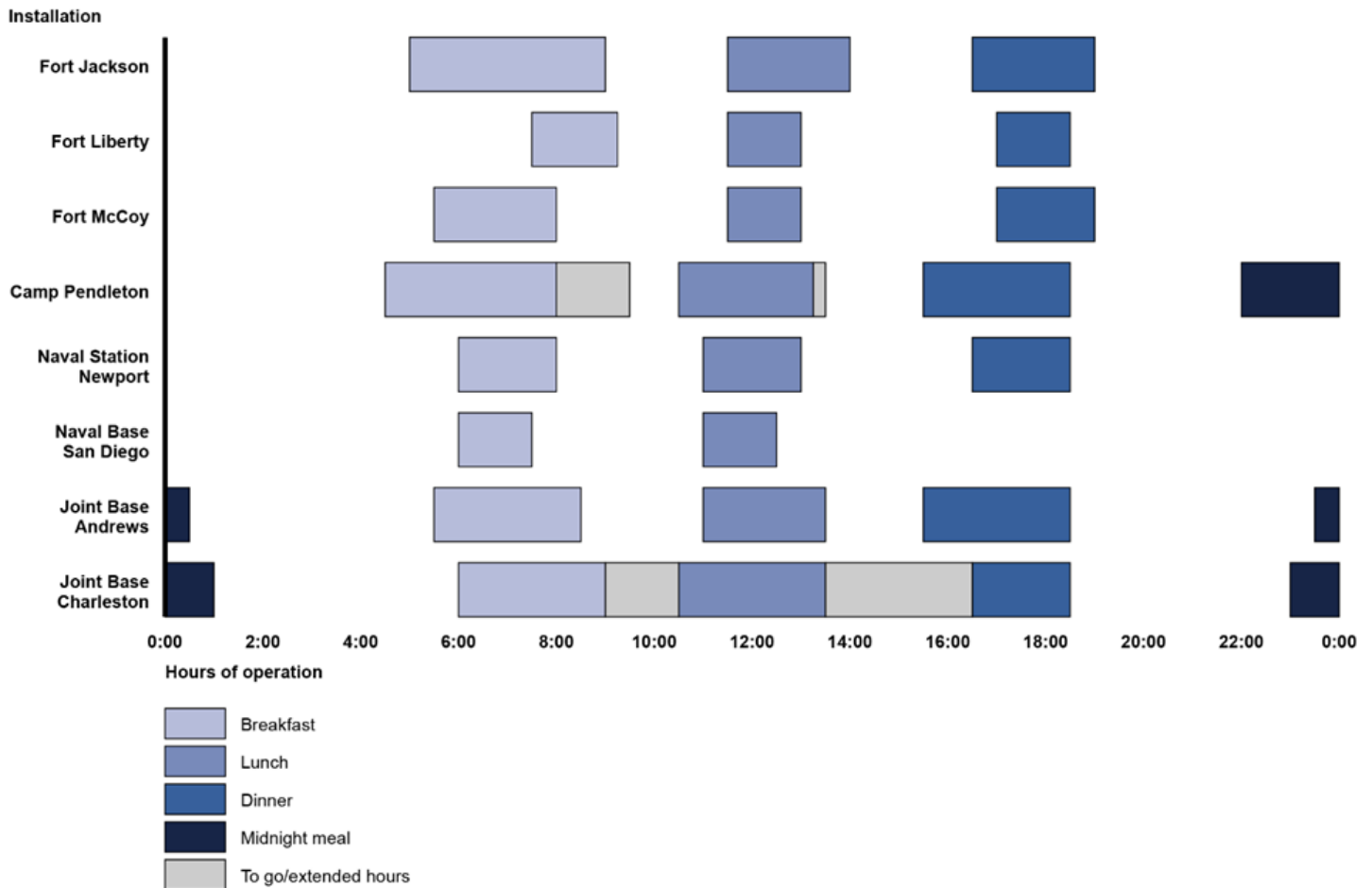
¹Navy Region Southwest is comprised of California, Arizona, Nevada, Utah, Colorado, and New Mexico.

²Department of Defense Manual 1338.10, *DOD Food Service Program* (Aug. 26, 2022).

Appendix V: Operating Hours of the Dining Facilities in our Sample

Figure 14 shows the operating hours of appropriated fund dining facilities on a typical weekday at the installations in our sample. The blank periods indicate time in which dining facilities are closed, and service members therefore cannot access food subject to nutrition requirements. As shown, meal periods range from 1 to 4 hours, and most dining facilities at the selected installations stopped serving meals by 6:00 or 6:30 p.m.

Figure 14: Operating Hours of Appropriated Fund Dining Facilities at Selected Installations



Source: GAO analysis of military services and installation data. | GAO-24-106155

Note: This figure shows the times during which the installation has at least one dining facility open. Fort Jackson, Fort Liberty, Fort McCoy, and Camp Pendleton had multiple dining facilities with different hours of operation. As such, this figure does not depict whether the location of open dining facilities is convenient to service members during their respective meal breaks.

Appendix VI: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

In addition to the contact named above, Ryan D'Amore (Assistant Director), Sara G. Cradic (Analyst-in-Charge), David Jones, Latrelle V. Lee, Kelly Liptan, Lillian Ofili, Patricia Powell, Richard Powelson, Timothy Smith, and Anne Thomas made key contributions to this report.

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