

GAO

Report to the Chairman, Subcommittee
on Oversight and Investigations,
Committee on Veterans' Affairs, House
of Representatives

November 1999

VA HEALTH CARE

Food Service Operations and Costs at Inpatient Facilities



**Health, Education, and
Human Services Division**

B-281940

November 19, 1999

The Honorable Terry Everett
Chairman
Subcommittee on Oversight and Investigations
Committee on Veterans' Affairs
House of Representatives

Dear Mr. Chairman:

The Department of Veterans Affairs' (VA) health care system requires a number of nonclinical services, such as food services, laundry, and housekeeping, to support the delivery of clinical care. About one-third of VA's health budget is spent on support services. Because these services make up a sizeable share of health care operating expenses, one focus of health care systems in the 1990s has been on reinventing the way they provide support services as a part of their overall efforts to increase the efficiency of health care delivery. Health care systems have used a variety of methods in their efforts to increase efficiency. These methods include consolidation of services, changes in technology, reinvention of work processes, and outsourcing of services.

VA provides many of these support services in inpatient settings. In fiscal year 1998, VA spent approximately \$8.4 billion on inpatient services—which include clinical and support services—for about 650,000 inpatients admitted to its facilities. VA provides inpatient health care in 175 locations in its hospitals, nursing homes, and domiciliaries.

You expressed concern that VA may not have focused adequately on increasing the efficiency of services that support its delivery of patient care. To address this concern, you asked us to develop a body of work providing baseline data on major VA support services and assessing options for increasing the efficiency of these services. You asked that we begin this work by examining VA's inpatient food service operations. This report provides fiscal year 1998 baseline information on (1) the type and volume of food service VA provides, (2) how VA provides food services, (3) the cost VA incurs, and (4) the revenues VA generates from sales of excess food services. We will assess options for increasing the efficiency of VA food services in a subsequent report.

To conduct our work, we surveyed the 22 Veterans Integrated Service Networks (VISN) to obtain data on food services at VA's 175 inpatient

locations. We also obtained data from VA headquarters officials and conducted site visits and telephone interviews with local VA officials. (See app. I for a complete description of our scope and methodology.) Our work was performed between December 1998 and October 1999 in accordance with generally accepted government auditing standards.

Results in Brief

VA provides a variety of food services to meet the widely varying needs of patients. For example, patients frequently need specialized food services, such as diet-restricted meals, snacks for special conditions like diabetes, and liquid nourishment for those unable to eat solid food. Most hospital patients need food delivery to their bedside. Many nursing home residents also require food service in their rooms, although a larger proportion of nursing home patients eat in congregate dining areas. The volume of food service at individual locations also varies, with most locations serving between 100 and 400 patients a day, although 25 percent serve fewer than 100 patients a day.

In fiscal year 1998, VA employees provided food services at 172 of 175 VA inpatient locations; private contractors provided food services at the 3 remaining locations. VA-operated food service locations buy most of their food supplies from prime vendors who provide discounts for high-volume purchases. VA-furnished meals and snacks include food cooked from scratch; pre-prepared foods that are purchased; and food cooked in advance and chilled for later use. VA locations also use traditional and advanced food delivery methods to maintain proper temperatures when food is distributed. The mix of these methods varies by location.

VA spent about \$429 million on inpatient food services in fiscal year 1998. Of this amount, VA spent about \$337 million to produce and distribute inpatient food and nourishments, with the rest for patient-related activities such as nutrition needs assessment and counseling. About 72 percent of production and distribution costs were for the wages and benefits of about 7,348 full-time-equivalent wage-rate employees. VA's daily food service production and delivery costs averaged about \$24.50 per patient, with individual locations' daily costs ranging between \$8 and \$51 per patient. The range in costs partly reflects the range in nutritional needs, which are generally less in domiciliaries than in hospital and nursing home settings.

In fiscal year 1998, 27 VA locations generated modest revenues of \$739,000 by using excess food capacity to produce food service for 44 non-VA organizations. Most sales were to private, nonprofit organizations; the

other VA sales were primarily to federal, state, and local government agencies.

Background

VA operates 172 hospitals, 131 nursing homes, and 40 domiciliaries.¹ These facilities—singly or in combination—are located in 175 inpatient locations. Over the last decade, VA has dramatically decreased its use of inpatient hospital care by about 58 percent, with most of the decline occurring in the last 3 years. At the same time, VA has increased its emphasis on outpatient care by establishing community-based clinics and increasing outpatient care at hospitals. The downsizing of inpatient care has created additional pressures on minimizing the costs of support services, as there are fewer patients who need these services in most locations.²

VA provides food services at each inpatient delivery location to patients, visitors, volunteers, and employees through its Nutrition and Food Services (NFS) program and its Canteen Service. The NFS program is responsible for ensuring that VA's inpatients receive appropriate and quality nutrition as an integrated part of VA health care. The Canteen Service is generally responsible for providing food and other retail services to outpatients, visitors, and employees at VA's delivery locations. NFS services are funded by appropriations; Canteen Service operations are funded by revenue from sales.

VA has managed its inpatient delivery locations through 22 VISNS since fiscal year 1996. These VISNS have the responsibility to make basic budgetary, planning, and operating decisions to meet the health care needs of veterans living within the geographic area, including the food service needs of VA inpatients. VISNS vary in the extent to which they direct or delegate initiatives regarding VA food service operations at their inpatient delivery locations.

VA's Food Service Needs Vary Widely

VA's food service needs vary widely based primarily on individual patient needs as determined by VA's dietitians and the numbers of patients at each of the 175 inpatient delivery locations. NFS dietitians identify patient nutrition needs, specify the food service appropriate to meet those needs,

¹A VA domiciliary is a residential rehabilitation and health maintenance center for veterans who do not require hospital or nursing home care but are unable to live independently because of medical or psychiatric disabilities.

²See VA Health Care: Challenges Facing VA in Developing an Asset Realignment Process (GAO/T-HEHS-99-173, July 22, 1999).

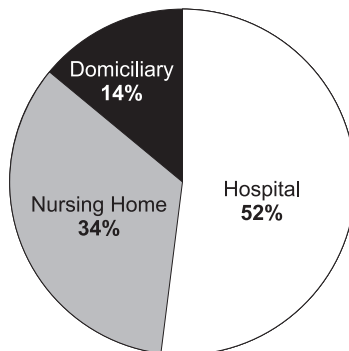
and ensure the quality of food and special nourishments that patients receive.

VA inpatients need regular meals, diet-restricted meals, snacks for those with special conditions such as diabetes, and special liquid nourishments for those unable to eat solid food. Diet-restricted meals, snacks, and special nourishments are most commonly required for hospital patients and nursing home patients. Less specialized food services are more common for domiciliary patients.

VA inpatients have food provided in different ways. Many hospital patients are bed-bound and need food delivered to their rooms. Bed-bound patients in nursing homes also need food delivered to their rooms, but a greater proportion of nursing home patients are able to eat in congregate dining areas than are hospital patients. Domiciliary patients are generally ambulatory and do not need special assistance with eating.

VA served approximately 40,000 inpatients in its facilities on any given day in fiscal year 1998. Of these, approximately half received hospital care and half received extended care in nursing homes or domiciliaries (see fig. 1). VA provided inpatient food services in every state, the District of Columbia, and Puerto Rico.

Figure 1: Average Proportion of Patients Receiving Food Service by Type of VA Inpatient Facility, Fiscal Year 1998

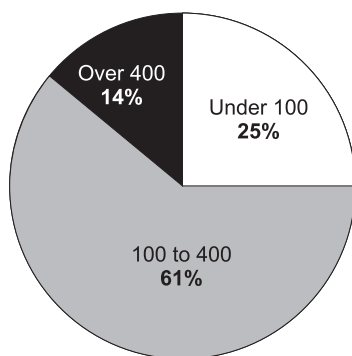


Note: N=175 inpatient health care delivery locations.

Source: GAO survey of VA's VISNs.

The volume of food service needed also varies widely by delivery location because of differences in the size of inpatient population. The average daily population ranged between a low of 18 and a high of 778. Most locations had an average daily inpatient population of 100 to 400 in fiscal year 1998 (see fig. 2). However, about one-quarter of the locations had an average daily inpatient population of less than 100 and about one-seventh had a daily population above 400.

Figure 2: Percentage of VA Locations by Size of Average Daily Inpatient Population, Fiscal Year 1998



Note: N=175 inpatient health care delivery locations.

Source: GAO survey of VA's VISNs.

VA Prepares Food for Nearly All Locations

VA meets its food service needs through its NFS-operated kitchens and Canteen-Service-operated kitchens and through private contractors. VA uses a variety of methods to produce and distribute food.

NFS Provided Inpatient Food Services at 168 Locations

NFS fulfilled 99 percent of VA's food inpatient service needs in fiscal year 1998 through the operation of 158 kitchens. In providing these services, VA requires NFS kitchens to purchase most food items from prime vendors to save on procurement costs. Prime vendors agree to sell supplies to purchasers, such as VA, at discounted prices when the purchaser agrees to buy a large volume of specified products exclusively from the vendor. VA headquarters awards contracts to different prime vendors by region. VA's NFS kitchens, however, purchase some items, such as milk and bread, from other suppliers.

VA uses a variety of methods to produce and distribute food, and many locations use a combination of these methods to provide inpatient food services. Historically, NFS has produced most food in kitchens located at health delivery locations where the food is consumed. Typically, this is conventional food production or cooking from scratch, using raw ingredients and recipes. Food production generally takes place just prior to meals. Some locations use convenience foods primarily or exclusively to reduce or eliminate cooking on site. Convenience foods are purchased already cooked or processed. Food items that are served hot are reheated or cooked just prior to meal time. Although convenience foods are generally more costly than raw food products, some VA locations believe that this method is less expensive overall than cooking from scratch because VA reduces its labor costs for food preparation.

Some locations cook food in advance and chill until needed. There are two cook/chill options, which may be used independently or together. The first option, blast chill, can be used for most food items and can chill foods for up to 5 days before being consumed. This option can, for example, eliminate the need for weekend hours for many food preparation staff. The second cook/chill option chills food for 21 to 40 days, but this option is suitable for fewer types of food than blast chill. The second option involves one of two processes, depending upon the type of food. The tumble chill process chills items, such as pasta, that can be pumped into various sized packets. The cook tank process chills items, such as roasts, that are vacuumed sealed. Tumble and tank chill processes can produce a high volume of food in one location—sometimes called food factories or central production units—for distribution to multiple locations.

After food production, VA must distribute food to patients. This consists of two steps—assembly and delivery. Most VA locations assemble food centrally in or near the kitchen where the food was produced. Staff put the food on plates and trays, usually in a “tray line” where different food items are placed on a plate by staff at different food stations. Some health care delivery locations use a decentralized approach, where food is conveyed in bulk to serving galleys in patient areas where staff assemble individual trays.

After food assembly, VA delivers food to patients—using traditional or advanced food delivery methods—to serve food at the appropriate serving temperature. A common traditional method is the “pellet” system which consists of a heated pellet (constructed of sealed stainless steel shells) on which a plate of food is placed and then covered to hold heat. Staff deliver

food on these pellets to patients. Advanced food delivery systems heat and refrigerate food that was prepared at an earlier time. This method is designed to serve as an extension of the advanced food preparation systems, although it can also be used with traditional food preparation.

VA uses these various food delivery systems to deliver meals in several ways at its inpatient locations. VA, for example, provides food at bedside to patients unable to leave their rooms, in congregate dining areas when patients can leave their rooms but may need assistance with getting their food, and in cafeteria lines for many domiciliary patients who do not need assistance with eating.

**VA's Canteen Services
Provided Inpatient Food
Services at Four Locations**

Kitchens operated by VA's Canteen Service provided less than 1 percent of VA's inpatient food services needs in fiscal year 1998. Canteen Service workers prepared food at these locations, although NFS dietitians continued to have responsibility for assessing patients' nutritional needs and monitoring the adequacy of food the Canteen Service prepares to meet these needs. Canteen Service food operations use a variety of methods of food production and distribution similar to those used by NFS. The Canteen Service provided inpatient food services at Marion, Illinois; Poplar Bluff, Missouri; Wichita, Kansas; and at the Martinez, California, nursing home.

**Private Contractors
Provided Food Services at
Three Locations**

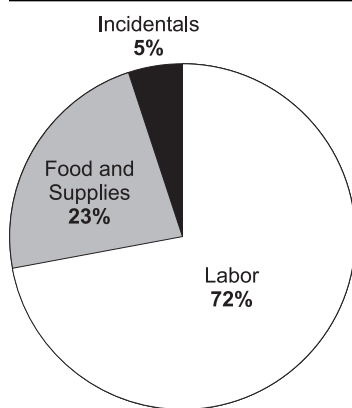
Private contractors provided inpatient food services to meet less than 1 percent of VA inpatient needs in fiscal year 1998. Private contractors provided food service at three locations, although NFS dietitians continued to have responsibility for assessing patients' nutritional needs and monitoring the adequacy of food prepared to meet those needs. Private contractors used methods similar to those of NFS to produce and distribute food. Sodexo Marriott provided food services for the Anchorage, Alaska, domiciliary; Sky Chef provided food services for the Honolulu, Hawaii, nursing home; and G & A Professional Services provided food services for VA and Department of Defense (DOD) inpatients at the joint VA/Air Force hospital (Mike O'Callaghan Federal Hospital) at Nellis Air Force Base in Nevada.

VA Spends Hundreds of Millions of Dollars on Inpatient Food Service

VA reported that NFS spent about \$429 million for inpatient food services in fiscal year 1998. Part of these funds were spent for professional dietitian services. For fiscal year 1998, VA reported that NFS spent \$92 million for about 1,613 full-time-equivalent employee dietitians and related general service staff who determined patients' nutrition needs, monitored the adequacy of food prepared to meet patients' dietetic needs, and counseled patients on their continuing nutrition needs.

The lion's share of VA's expenses for food service, however, were for producing and distributing food at VA's 175 inpatient delivery locations. In fiscal year 1998, VA reported that it spent approximately \$337 million, or about 80 percent of its inpatient food service expenditures, on the production and distribution of food to patients. This includes the costs of about 46 million meals as well as snacks and special nourishments. Most of VA's inpatient food costs were for labor—the wages and benefits of about 7,348 full-time-equivalent employee wage-grade staff who prepare and distribute food (see fig. 3).

Figure 3: Distribution of VA Inpatient Food Service Costs by Source, Fiscal Year 1998



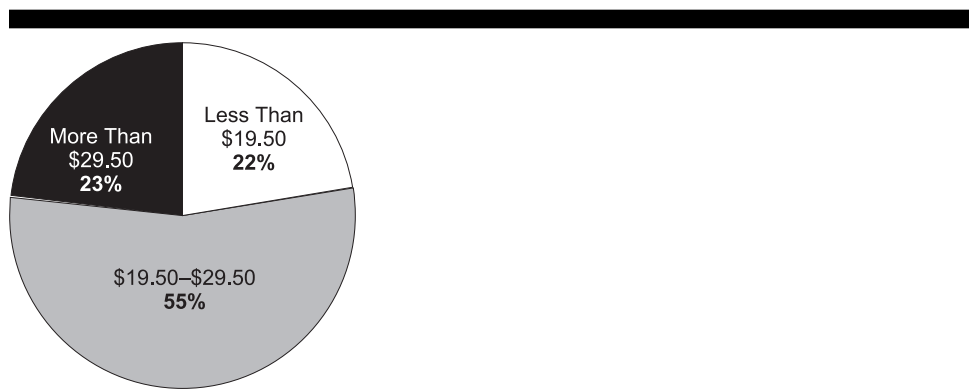
Source: GAO calculations based on data from VA.

The daily costs of producing food services varied widely among the 134 locations for which cost data were available, ranging from about \$8 to about \$51 per patient in fiscal year 1998.³ The range in costs partly reflects

³Cost data for the other 41 inpatient locations were available only at the integrated facility level, which includes two or more locations. The average cost at these integrated facilities, however, is similar to the average cost of the 134 individual locations for which cost data were available.

the range in nutritional needs from location to location. Locations that have more ambulatory patients with lesser need for special diets in the domiciliary setting generally have lower costs than locations that have more bed-bound patients with more serious illnesses and more need for special diets in tertiary hospital and nursing home settings. These costs also include a measure to incorporate expenditures and workload for meals prepared for persons other than inpatients where NFS paid for such meals (see app. I for details).⁴ VA's average daily food service cost was about \$24.50 per patient. About one-fifth of the locations had average daily patient costs of at least \$5 below VA's average cost, and about one-fifth had an average daily cost of at least \$5 above VA's average cost (see fig. 4).

Figure 4: Distribution of VA Inpatient Locations by Average Daily Food Service Costs per Patient, Fiscal Year 1998



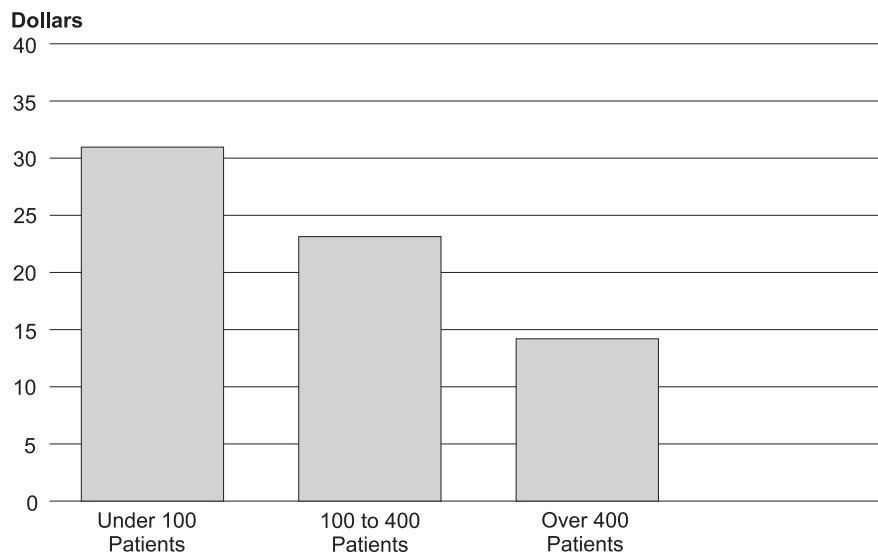
Note: N=134 inpatient health care delivery locations.

Source: GAO survey of VA's VISNs.

Among the 134 locations for which cost data were available, average daily costs per patient were higher in locations with smaller average daily inpatient populations than in larger locations (see fig. 5). These costs are higher, in part, because the fixed costs of food service operations are spread over a smaller volume of patients.

⁴This includes meals provided by NFS locations for outpatients, volunteers, and employees.

Figure 5: VA Average Daily Food Service Costs per Patient by Size of Location, Fiscal Year 1998



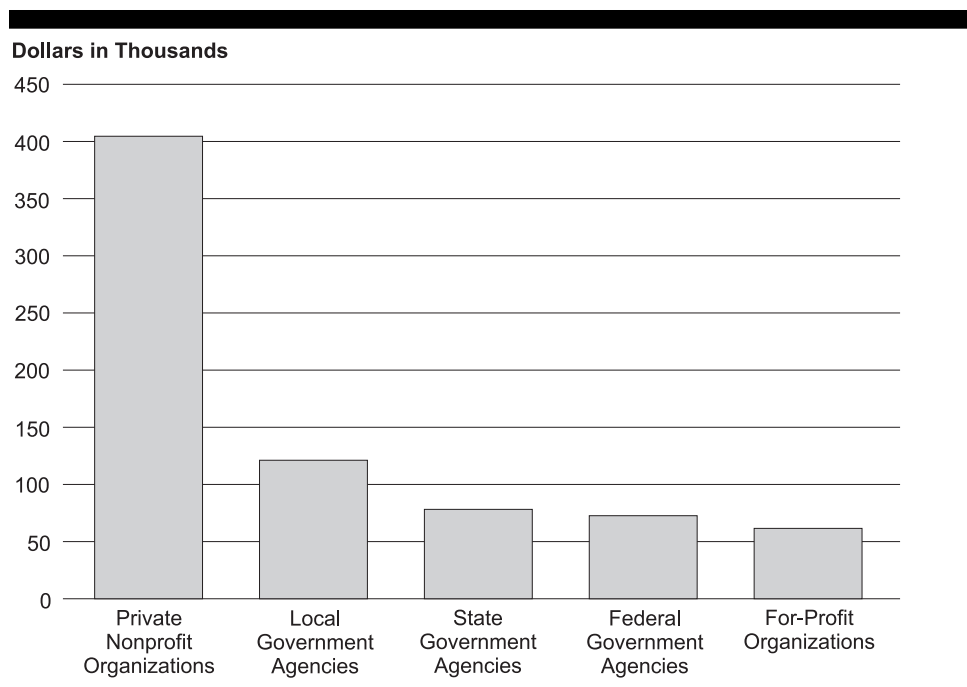
Note: N=134 inpatient health care delivery locations.

Source: GAO survey of VA's VISNs.

VA Generates Modest Revenues by Selling Food Service to Non-VA Organizations

VA received \$739,284 in fiscal year 1998 from the sale of food services by 27 VA locations to 44 non-VA organizations. Revenues were less than 1 percent of VA's expenditures on inpatient food services. VA sales to non-VA organization ranged from \$9 to \$75,640. The largest customers for VA food sales were private nonprofit organizations, such as Western South Dakota Senior Services in Hot Springs, South Dakota, and United Cerebral Palsy Day Care Center in Canandaigua, New York (see fig. 6). VA also made sales to government organizations, including federal agencies, such as Charleston Air Force Base; state agencies, such as the Idaho State veterans home; and local government organizations, such as the Los Angeles Homeless Authority Services. VA also sold food services to for-profit organizations, such as the Columbia Douglas Medical Center in Roseburg, Oregon.

Figure 6: Non-VA Organizations Buying VA Food Services, Fiscal Year 1998



Note: N=134 inpatient health care delivery locations.

Source: GAO survey of VA's VISNs.

Agency Comments

In an October 25, 1999, letter in response to a draft of this report (see app. II), VA said that our report provides an essentially accurate description of food service delivery in the Veterans Health Administration.

As arranged with your staff, we are sending copies of this report to the Secretary of Veterans Affairs, interested congressional committees, and other interested parties. We will make copies of this report available to others upon request.

If you have any questions about this report, please call me at (202) 512-7101 or Paul R. Reynolds, Assistant Director, at (202) 512-7109. Other major contributors to this report were James C. Musselwhite, Senior Social Science Analyst; John R. Kirstein, Evaluator; Elsie M. Picyk, Senior Evaluator, Computer Science; and Susan Lawes, Senior Social Science Analyst.

Sincerely yours,

A handwritten signature in black ink that reads "Stephen P. Backhus". The signature is written in a cursive style with a large, looped initial 'S'.

Stephen P. Backhus
Director, Veterans' Affairs and
Military Health Care Issues

Contents

Letter	1
Appendix I Scope and Methodology	16
Appendix II Comments From the Department of Veterans Affairs	18
Figures	
Figure 1: Average Proportion of Patients Receiving Food Service by Type of VA Inpatient Facility, Fiscal Year 1998	4
Figure 2: Percentage of VA Locations by Size of Average Daily Inpatient Population, Fiscal Year 1998	5
Figure 3: Distribution of VA Inpatient Food Service Costs by Source, Fiscal Year 1998	8
Figure 4: Distribution of VA Inpatient Locations by Average Daily Food Service Costs per Patient, Fiscal Year 1998	9
Figure 5: VA Average Daily Food Service Costs per Patient by Size of Location, Fiscal Year 1998	10
Figure 6: Non-VA Organizations Buying VA Food Services, Fiscal Year 1998	11

Abbreviations

DOD	Department of Defense
NFS	Nutrition and Food Services
VA	Department of Veterans Affairs
VISN	Veterans Integrated Service Network

Scope and Methodology

We focused our work on VA's inpatient food services for fiscal year 1998 to provide baseline information on (1) the type and volume of food service VA provides, (2) how VA provides food services, (3) the cost VA incurs, and (4) the revenues VA generates from sales of food services.

To obtain this information, we interviewed VA headquarters officials in NFS, Canteen Services, the Office of the General Council, and other offices. We obtained documents from headquarters on food service roles in VA, how food service is provided, and national data on total costs and employees.

We obtained location-specific data through surveys and survey follow-ups to each VISN on food services at each inpatient location. Specifically, we obtained information on food service needs, how VA provides services, VA costs, and revenues from food sales at each VA inpatient location. VISNS and locations also provided us with reports and studies on various food service changes in food production and cost that were under way or planned. We tested need, financial, and other data provided in the survey by comparing data from the inpatient locations in various ways. We compared the data over time in the same location, compared data for locations of similar size, and compared location data with other published data, where available. Where differences were found that were material to our analysis, we conducted telephone follow-ups to VISNS, locations, and headquarters and reconciled conflicting data. We also did additional comparisons with locations whose costs were unusually high or low and followed up where necessary to confirm the accuracy of information. In addition, we compared our survey totals to nationwide VA data on average inpatient population and NFS costs and employees. We also obtained additional data through interviews, documents, and physical inspections of kitchen facilities and food delivery at VA locations. We visited VISN 8 (Bay Pines) and its Tampa and Bay Pines locations. We also visited VISN 15 (Kansas City) and its Marion, St. Louis Jefferson Barracks, and St. Louis John Cochran locations.

We used the average daily cost per patient in our analysis as our measure of unit costs. We used this measure because it incorporates all nutrition and food service costs and provides for more comparability of costs across VA. This measure includes all costs of each patient for 1 day—all meals, the number of which can vary depending upon definition; snacks; and special nourishments. In addition, we incorporated the cost of NFS meals provided to persons other than inpatients to avoid overstating the food service costs at locations where the number of such meals is significant. To do so, we assumed that three meals to persons other than

inpatients equaled 1 day of inpatient food service. This somewhat understates the daily cost per patient in locations that provided a substantial number of meals to persons other than inpatients because this assumption includes no costs for snacks and special nourishments. These additional meals were primarily for outpatients but also included meals for volunteers and employees.

We also conducted a literature review of the food services industry and interviewed selected non-VA food service officials. These included officials from the private sector, food service industry organizations, and DOD health care.

We performed our review between December 1998 and October 1999 in accordance with generally accepted government auditing standards.

Comments From the Department of Veterans Affairs



DEPARTMENT OF VETERANS AFFAIRS
WASHINGTON DC 20420

OCT 25 1999

Mr. Stephen P. Backhus, Director
Veterans' Affairs and Military Health
Care Issues
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Backhus:

We have reviewed the draft report entitled *VA Health Care: Food Service Operations and Costs at Inpatient Facilities*, GAO/HEHS-00-17, and find that GAO provides an essentially accurate description of food service delivery in the Veterans Health Administration.

VA looks forward to the second phase of GAO's food service review. We anticipate that it may prove useful as we continue to assess opportunities for more efficient and more cost effective management of support services in VA health care facilities.

Thank you for the opportunity to review and comment on the draft report.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Duffy", written over a circular stamp.

Dennis Duffy
Assistant Secretary for
Planning and Analysis

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. VISA and MasterCard credit cards are accepted, also. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:

U.S. General Accounting Office
P.O. Box 37050
Washington, DC 20013

or visit:

Room 1100
700 4th St. NW (corner of 4th and G Sts. NW)
U.S. General Accounting Office
Washington, DC

Orders may also be placed by calling (202) 512-6000 or by using fax number (202) 512-6061, or TDD (202) 512-2537.

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.

For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:

info@www.gao.gov

or visit GAO's World Wide Web Home Page at:

<http://www.gao.gov>

**United States
General Accounting Office
Washington, D.C. 20548-0001**

**Bulk Rate
Postage & Fees Paid
GAO
Permit No. G100**

**Official Business
Penalty for Private Use \$300**

Address Correction Requested

