United States General Accounting Office

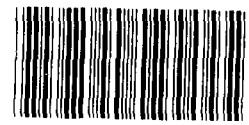
GAO

Report to the Chairman, Subcommittee on Military Personnel and Compensation, Committee on Armed Services, House of Representatives

March 1988

# DEFENSE HEALTH CARE

# Cost of Care at Selected Uniformed Services Treatment Facilities




GAO/HRD-88-67

GAO
United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

B-230516

March 22, 1988

The Honorable Beverly B. Byron
Chairman, Subcommittee on
Military Personnel and Compensation
Committee on Armed Services
House of Representatives

Dear Madam Chairman:

This report responds to your request that we examine the Uniformed Services Treatment Facilities' (USTFs) costs of providing medical care to eligible uniformed services beneficiaries.

This report discusses the results of our work performed at the USTFs in Baltimore, Maryland; Seattle, Washington; and Port Arthur and Houston, Texas. We also discuss the results of studies prepared by three private contractors on the USTFs' costs.

As you requested, we did not obtain official comments from the Department of Defense (DOD) and the USTFs on this report. However, we discussed our findings with cognizant DOD and USTF officials and incorporated their comments where appropriate.

Copies of this report are being sent to the Chairmen of the House and Senate Committees on Appropriations and Armed Services; the Director, Office of Management and Budget; the Secretary of Defense; the Secretaries of the Army, Navy, and Air Force; and the USTFs and state hospital commissions that participated in our review. Copies also will be made available to other interested parties upon request.

Sincerely yours,

David P. Baine

David P. Baine
Associate Director

# Executive Summary

## Purpose

The Military Construction Act of 1982 (42 U.S.C. 248c) authorized 10 former Public Health Service hospitals and clinics to provide free comprehensive health care services for eligible beneficiaries of the armed services, the Coast Guard, and the Commissioned Corps of the Public Health Service and the National Oceanic and Atmospheric Administration for 3 years. The 10 facilities, known as Uniformed Services Treatment Facilities (USTFs), also provide health care to nonuniformed services patients. The Congress later extended USTF status for these facilities until December 31, 1988.

The Subcommittee on Military Personnel and Compensation, House Committee on Armed Services, requested GAO to examine the USTFs' costs of providing medical care to uniformed services beneficiaries. In November 1986, GAO briefed the Chairman's office on the results of its preliminary work at the Baltimore, Maryland, USTF. At that time, the Chairman's office requested that GAO

- examine studies prepared by private contractors and provide conclusions on the reasonableness and validity of the studies' methodologies and findings;
- compare the Seattle, Washington, USTF's costs to those of private health care providers in the same geographic area since, at that time, it was the only USTF not participating in a private contractor's studies on USTFs' costs and provide information on the USTF's fixed-price contract; and
- determine the reasons for the substantially increased federal reimbursements from 1984 to 1985 to the Port Arthur and Houston, Texas, USTFs.

A more detailed discussion of GAO's work at the Baltimore USTF is included in this report. (See p. 15.)

## Background

Federal reimbursements to the USTFs rose from about $24 million when the program began in fiscal year 1982 to about $168 million in fiscal year 1986. The Department of Defense (DOD), the largest federal user of the USTFs, paid about $152 million of the $168 million. The Department of Health and Human Services and the Coast Guard paid the rest. In fiscal year 1987, the Congress limited USTF expenditures to about $115 million and directed DOD to establish fixed-price contracts at all 10 USTFs. In fiscal year 1988, the Congress limited USTF expenditures to about $126 million, and the fixed-price contracts remained in effect.

Several private contractors—Booz-Allen and Hamilton, Inc.; Arthur Andersen and Company; and Ernst and Whinney—performed studies

that compared USTFs' costs to those of other government programs and/or private hospitals in the same geographic area. (See p. 22.)

## Results in Brief

The USTFs, in general, provided health care services in a cost-effective manner when compared to Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) providers in the same geographic area, according to the Booz-Allen studies. Based on our analysis and the Arthur Andersen study, the Baltimore USTF compared favorably to other hospitals in the same geographic region. The four USTFs in Texas compared favorably to CHAMPUS, Medicare, and greater Houston hospitals, according to an Ernst and Whinney study.

GAO did not compare the Seattle USTF's cost to those of other hospitals in the state because it had no data for determining which hospitals were comparable. Information obtained from both the USTF and DOD indicated that DOD's fixed-price contract with the Seattle USTF reduced DOD's costs at that facility from a projected $35 million to $30.5 million in 1985; DOD's costs rose to about $35 million in 1986 but fell to $25 million in 1987.

The Port Arthur and Houston USTFs received substantially increased reimbursements from 1984 to 1985 primarily due to (1) increased numbers of new patients, (2) added inpatient beds, and (3) expanded outpatient services.

## Principal Findings

### Studies Show USTFs Are Cost Effective

The USTFs were as cost effective as the CHAMPUS providers during fiscal years 1983 and 1984 and were more cost effective than CHAMPUS for fiscal year 1985 through June 30, 1986, according to studies performed by Booz-Allen. Likewise, Arthur Andersen's study of the Baltimore USTF determined that the USTF's average inpatient charge was comparable to the combined average charge of hospitals in the same geographic region. A study conducted by Ernst and Whinney for the four Texas USTFs concluded that their charges were (1) lower than CHAMPUS charges, (2) lower than or comparable to charges under Medicare, and (3) lower than or comparable to charges at greater Houston hospitals. The studies' methodologies and findings appear to be reasonable. (See p. 22.)

Since the time periods involved in the above studies, substantial changes in the CHAMPUS and USTF reimbursement methods have occurred. In fiscal year 1987, DOD, as directed by the Congress, established fixed-price contracts at all 10 USTFs. In October 1987, DOD implemented a new payment system under CHAMPUS. Because Booz-Allen and Ernst and Whinney compared USTFs costs to CHAMPUS costs in their studies, the question arises as to whether these studies' findings would change if cost comparisons were made under the new methods of reimbursement.

GAO has no basis on which to provide a definitive response to this question. However, two factors raise doubt about whether the new payment methods will result in any change in the studies' findings: (1) the new payment system applies only to inpatient services, while the USTFs provide large amounts of outpatient care (two USTFs provide only outpatient care) and (2) certain inpatient services provided at the USTFs are excluded from the new payment system. (See p. 25.)

## Seattle USTF's Contract Reduced Costs

DOD negotiated a fixed-price contract with the Seattle USTF in 1984. The contract reduced projected 1985 USTF costs by about $4.5 million, according to hospital data. In 1987, DOD reduced the fixed-price contract by about $10 million below the 1986 contract amount. In 1988 and beyond, the USTF's contract amount cannot exceed a 10-percent increase over the prior year's fixed price. (See p. 19.)

## Increased Reimbursements to Two Texas USTFs

The Port Arthur and Houston USTFs received substantially increased reimbursements from 1984 to 1985. According to records from these USTFs, a combined total of about 7,700 new patients were registered during 1985. In addition, both USTFs began providing inpatient services for the first time. Also during 1985, the Port Arthur USTF expanded its outpatient services. (See p. 20.)

## Maryland USTF's Costs Compare Favorably

Based on GAO's analysis of 1985 cost data provided by the Maryland Health Services Cost Review Commission, the Baltimore USTF compared favorably to 15 similar private hospitals. The USTF ranked third lowest for average cost per admission, fifth lowest in average cost per day, and sixth lowest in average cost per discharge. Under a 1986 affiliation agreement with the Johns Hopkins Health System, the USTF consolidated various hospital services with a nearby affiliated hospital. Future economies and efficiencies are projected to result from the USTF's affiliation with Johns Hopkins. (See p. 15.)

## Recommendations

In view of the recent changes to the USTF and CHAMPUS reimbursement methodologies and the lack of current data to determine how these methodologies have affected costs, GAO is making no recommendations to change the USTF program.

## Agency Comments

GAO did not obtain official comments from DOD and the USTFs on this report.

# Contents

## Abbreviations

| | |
|---|---|
| CHAMPUS | Civilian Health and Medical Program of the Uniformed Services |
| DOD | Department of Defense |
| DRG | Diagnosis Related Group |
| GAO | General Accounting Office |
| HHS | Department of Health and Human Services |
| PHS | Public Health Service |
| PMC | Pacific Medical Center |
| USTF | Uniformed Services Treatment Facility |

# Introduction

The Omnibus Budget Reconciliation Act of 1981, enacted on August 13, 1981, required Public Health Service (PHS) hospitals and clinics (1) to be closed by October 31, 1981; (2) to be transferred to a public (including federal) or nonprofit private entity; or (3) to be financially self-sufficient by September 30, 1982. When the legislation was enacted, PHS operated 8 hospitals and 27 clinics. The act required the Secretary of Health and Human Services (HHS) to consider proposals for transferring these facilities to public or private nonprofit entities. HHS ultimately transferred five hospitals and five clinics to civilian ownership. The other facilities were either closed or transferred to other federal agencies.

The Military Construction Authorization Act of 1982 (42 U.S.C. 248c), enacted on December 23, 1981, designated the former PHS hospitals and clinics that were transferred to civilian ownership as facilities of the uniformed services and authorized the Department of Defense (DOD) and HHS to reimburse the 10 Uniformed Services Treatment Facilities (USTFs) for medical and dental care provided free to eligible uniformed services beneficiaries.[1] The legislation stipulated that DOD and HHS could jointly terminate any USTF's status after 3 years. The DOD Authorization Act of 1984 (42 U.S.C. 248d), enacted on September 24, 1983, extended the USTF termination date until December 31, 1987. The National Defense Authorization Act for Fiscal Year 1987 (Public Law 99-661), enacted on November 14, 1986, extended the USTF termination date to December 31, 1988.

DOD's Office of the Assistant Secretary of Defense (Health Affairs) administers the USTF program, including negotiating contracts with the USTFs and reimbursing them for care provided to uniformed services beneficiaries.

A list of the 10 USTFs and their operators appears as table 1.1.

[1]The uniformed services include the Army, Navy, Air Force, Marine Corps, Coast Guard, and Commissioned Corps of the Public Health Service and the National Oceanic and Atmospheric Administration.

**Table 1.1: USTFs, Their Locations, and Their Operators**

| Current name | Location | Operator |
|---|---|---|
| Hospitals: | | |
| Wyman Park Health System, Inc. | Baltimore, MD | Wyman Park Health System |
| Brighton Marine Public Health Center | Boston, MA | Allston-Brighton Aid & Health Group, Inc. |
| St. John Hospital | Nassau Bay, TX | Sisters of Charity of the Incarnate Word |
| Pacific Medical Center | Seattle, WA | Pacific Hospital Preservation and Development Authority |
| Bayley Seton Hospital | Staten Island, NY | Sisters of Charity of St. Vincent DePaul of New York |
| Clinics: | | |
| Downtown Health Care[a] | Cleveland, OH | Lutheran Medical Center Services |
| St. Mary's Hospital[b] | Galveston, TX | Sisters of Charity of the Incarnate Word |
| St. Joseph Hospital[b] | Houston, TX | Sisters of Charity of the Incarnate Word |
| St. Mary Hospital[b] | Port Arthur, TX | Sisters of Charity of the Incarnate Word |
| Martin's Point Health Care Center (formerly Costal Health Services)[a] | Portland, ME | Penobscot Bay Medical Associates |

[a]The clinics in Ohio and Maine provide outpatient care only.

[b]The Sisters of Charity relocated the former PHS clinic operations to the outpatient departments of these hospitals. In 1984, DOD authorized the Sisters of Charity to provide inpatient care at these hospitals where the clinics are located.

The USTFs provide free health care to eligible uniformed services beneficiaries under individual participation agreements negotiated by DOD with each facility on behalf of DOD, HHS, and the Coast Guard. Under the agreements, eligible uniformed services beneficiaries are entitled to a prenegotiated set of services on a "walk-in" basis at the USTFs in lieu of seeking those services at military facilities. The military facilities can also refer DOD beneficiaries to USTFs. Also, eligible uniformed services beneficiaries may seek care at the USTFs instead of using other civilian hospitals under the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). In addition to treating uniformed services beneficiaries, the USTFs also provide services to other patients, such as Medicare, Medicaid, and privately insured patients. (See app. I for a description of the USTFs we visited.)

## Costs of USTFs

USTF reimbursements from the federal government have risen substantially since the program's inception in fiscal year 1982. These reimbursements totaled about $24 million in fiscal year 1982.[2] By fiscal year 1986, reimbursements amounted to about $168 million. DOD, the largest federal user of the USTFs, paid about $152 million, or 90 percent, of the total USTF fiscal year 1986 reimbursements. HHS and the Coast Guard paid the other $16 million.

In response to congressional concern about rising costs of the USTF program, in 1985 DOD awarded a contract to Booz-Allen and Hamilton, Inc., to compare the costs of medical care in each USTF to the costs of care provided under CHAMPUS in selected civilian facilities. The results of the Booz-Allen reports are summarized in chapter 5.

In a May 1986 report to the Congress, DOD stated that it could have saved more than $45 million and the entire USTF program could have saved about $50 million in fiscal year 1984 if the beneficiaries had used military facilities and CHAMPUS instead of USTFs. DOD's cost analysis noted that the USTFs' inpatient and outpatient utilization rates exceeded the fiscal year 1984 national average utilization rates compiled by HHS. The analysis showed that over half ($23 million) of DOD's estimated $45 million savings would result from applying national utilization rates to each USTF's patient population. Moreover, the analysis showed that about $6 million of the estimated $45 million savings would result if DOD eliminated general dental care provided by the USTFs. The cost analysis noted that general dental care was not a CHAMPUS benefit in fiscal year 1984, and the military facilities provided this care on an extremely limited basis.

The USTFs submitted a rebuttal to the Congress stating that DOD's cost analysis contained many flaws, incomplete data, and unwarranted assumptions and that it distorted actual USTF reimbursements. According to data in the rebuttal, the USTFs' analysis, which, unlike DOD's, adjusted for the age, sex, and mix of patients, showed that eliminating the USTFs would be more costly to the government and patients.

To help counter DOD's cost analysis, in the fall of 1986, the USTFs (except the one in Seattle) engaged Arthur Andersen and Company to compare their costs to those of local health care providers. Two USTFs—Portland and Cleveland—terminated their arrangements because the studies

[2]Fiscal year 1982 reimbursement data cover 9 months because the USTF designation was authorized during the year.

became too costly. The four Texas USTFs terminated their arrangements with Arthur Andersen and subsequently engaged Ernst and Whinney to conduct the study of their facilities. Arthur Andersen completed the study for the USTF in Maryland. The results of the Maryland study and the Ernst and Whinney study are summarized in chapter 5. As of January 1988, the studies for the USTFs in Massachusetts and New York were still ongoing.

In its fiscal year 1987 budget submission to the Congress, DOD requested $167 million for the USTF program. The Congress authorized a $115 million program cap and directed DOD to negotiate a fixed-price contract with each USTF. Before the 1987 fixed-price contracts, DOD essentially used fee-for-service reimbursement agreements at all the USTFs except the Seattle facility, which has had a fixed-price contract since 1984. The fiscal year 1987 fixed-price agreements included a provision to change the reimbursement methodology used to compute the fixed price in future years. Beginning on January 1, 1988, the fixed price is the product of the number of unduplicated users[3] multiplied by an annual market rate. The annual market rate (per capita) will be the yearly sum of (1) the government's contribution for self-only, low-option Federal Employees Health Benefits plans and (2) the average employee premium of all plans in the state where the USTF is located. DOD's market rate methodology is intended to facilitate transition of the USTFs from partially federally funded facilities to competitive community medical facilities that are not dependent on uniformed services revenues.

## Objectives, Scope, and Methodology

In May 1986, the office of the Chairman, Subcommittee on Military Personnel and Compensation, House Committee on Armed Services, requested us to examine the USTFs' costs of providing medical care to eligible beneficiaries. In November 1986, we briefed the Chairman's office on the results of our initial work at the USTF in Baltimore. At that time, we were also requested to

- compare the Seattle USTF's costs to those of private health care providers in the same geographic area since, at that time, it was the only USTF not participating in the Arthur Andersen studies on USTFs' costs, and provide information on DOD's fixed-price contract with the facility;
- determine the reasons for substantially increased reimbursements from 1984 to 1985 to the USTFs in Port Arthur and Houston; and

[3]DOD defines an unduplicated user as an eligible beneficiary who received care at the USTF at least once during the past calendar year.

- examine the Booz-Allen and Arthur Andersen studies on USTFs' cost and provide conclusions on the reasonableness and validity of the studies' methodologies and findings.

This report discusses the results of our work at the Baltimore USTF in more detail and presents the results of the work requested in November 1986.

In response to rising health care costs in general and hospital costs in particular, a number of states—including Maryland and Washington—established hospital commissions to control the escalation of hospital costs and charges. The hospital commissions generally have authority over financial disclosure, budget, approval or denial of requested rate increases, and other related matters. State laws in Maryland and Washington require that the commission assure all purchasers of hospital services that (1) a hospital's total costs are reasonably related to total services, (2) the rates the hospital charges are reasonably related to the hospital's costs, and (3) the rates charged all patients are set equitably among all purchasers. To carry out their responsibilities under the law, the Maryland and Washington commissions collect, analyze, and verify myriad hospital cost data for each nonfederal hospital in their states. To compare the costs of the USTFs in Maryland and Washington to those of other hospitals in these states, we obtained commission hospital cost data for all nonfederal hospitals in these states, including the USTFs. This approach obviated the need to collect and verify individual hospital cost data for about 160 nonfederal hospitals in the two states.

To compare the costs of the USTF in Baltimore—Wyman Park—to those of other local providers, we obtained and analyzed 1984 and 1985 cost data[4] from the Maryland Health Services Cost Review Commission. The commission, located in Baltimore, obtains and analyzes extensive hospital cost data to establish average charge rates for medical services in 54 nonfederal hospitals in the state. Because of the significant additional audit work required and the many steps taken by the commission to ensure the accuracy of its data, we did not verify the data. For example, the commission individually reviews and analyzes each hospital's rate request and requires and reviews audited annual financial statements from each hospital.

[4]These data were the most current available at the time of our visit in September 1986.

We interviewed the commission's executive director and his staff to obtain their views on Wyman Park's cost effectiveness compared to similar hospitals. We also interviewed Wyman Park officials to obtain their views on how their costs compared to other local hospitals.

To supplement and compare to DOD's USTF data, we obtained and analyzed 1983-86 hospital data on the number of uniformed services beneficiaries treated and the amounts of uniformed services' reimbursements. We also ascertained Wyman Park's future plans as a result of its 1986 affiliation with the Johns Hopkins Health System and the impact the affiliation would have on the facility's ability to provide health care services to uniformed services beneficiaries.

To compare the costs of the Pacific Medical Center (PMC) USTF in Seattle to local private health care providers, we obtained and analyzed 1985-87 Washington State Hospital Commission cost data. The commission, located in Olympia, regulates the costs and charges for 106 nonfederal hospitals in the state. Since June 1987, PMC is no longer regulated by the commission because PMC contracted for its inpatient services with another area hospital.

We did not verify the accuracy of the commission's cost data because the commission, like its counterpart in Maryland, takes many actions to verify the accuracy of its data. We interviewed the commission's executive director and his staff to obtain their views on PMC's cost effectiveness compared to similar hospitals. We also interviewed PMC officials to obtain their views on how their costs compared to other local hospitals.

We obtained and analyzed 1984-86 PMC data to document the number of uniformed services beneficiaries treated as inpatients or outpatients for this period. We also obtained data pertaining to PMC's fixed-price contract negotiated with DOD in 1984. We interviewed PMC's president, who was involved in the 1984 fixed-price negotiations with DOD, to ascertain how the price was initially determined and what impact the fixed-price contract had on cost containment. In addition, we discussed the hospital's future plans to contract for inpatient services and the impact contracting would have on the facility's ability to provide health care services to uniformed services beneficiaries.

To determine the reasons for the increased DOD reimbursements to the Port Arthur and Houston USTFs from 1984 to 1985, we obtained and analyzed data for the 2-year period from the Sisters of Charity headquarters' officials, who operate the USTFs in Texas, and interviewed those

officials to obtain their views on why DOD's USTF reimbursements increased. We interviewed hospital officials at the Port Arthur and Houston USTFs to obtain their views on (1) why the DOD USTF reimbursements increased from 1984 to 1985 and (2) the workload data provided by the headquarters officials.

To examine the results of the cost comparisons performed by three private contractors, we obtained Arthur Andersen's study on the Maryland USTF, Ernst and Whinney's study on the four USTFs in Texas, and Booz-Allen's studies on all 10 USTFs. We reviewed these studies to determine whether the methodologies and resulting findings appeared reasonable and valid.

To determine DOD's views on the USTFs, we interviewed the USTF program administrator in the Office of the Assistant Secretary of Defense (Health Affairs). In addition, we obtained and analyzed DOD's USTF reimbursement data as well as contracts, reimbursement agreements, cost analysis, and annual reports to the Congress pertaining to the USTF program. We contacted DOD's Booz-Allen project officer in the Office of the Assistant Secretary to obtain pertinent contract data. We also contacted representatives from the Offices of the Army, Navy, and Air Force Surgeons General to obtain USTFs' claims payment data as well as their views on the growth of USTFs' reimbursements. We also contacted (1) HHS officials and obtained reimbursement data for both PHS and the National Oceanic and Atmospheric Administration and (2) the Coast Guard and obtained reimbursement data to assure that we had the total dollar reimbursements to the USTFs from all the uniformed services.

We did our work from May 1986 through January 1988 in accordance with generally accepted government auditing standards, except that, as requested by the Chairman's office, we did not obtain agency comments on this report.

# Wyman Park's Costs Lower Than Most Nearby Hospitals' Costs

Our analysis of cost data provided by the Maryland Health Services Cost Review Commission showed that, compared to 15 similar hospitals, Wyman Park ranked lower than most in average cost per admission, average cost per discharge, and average cost per day. Commission officials believed that Wyman Park was a cost-efficient operation and that its cost effectiveness would be enhanced by its affiliation with the Johns Hopkins Health System.

## Maryland Commission's Cost Comparison Methodology

The Maryland Health Services Cost Review Commission establishes authorized average charge rates for medical services in all 54 nonfederal Maryland hospitals, including Wyman Park. To establish these rates, the commission compares a hospital's costs to those of similar hospitals in the state.

To compare hospitals' costs, the commission assigned each of the state's 54 hospitals to one of seven groups based primarily on five variables: (1) number of beds, (2) mix of patients, (3) scope of services, (4) teaching versus nonteaching, and (5) location—urban, rural, or suburban. In establishing the comparison groups, the commission recognized that no two hospitals have identical services or costs and thus attempted to minimize the extreme variations that might skew one hospital's costs as related to other peer group hospitals. Consequently, hospitals making up a particular comparison group are similar, but not identical. Wyman Park was assigned to a comparison group comprising 15 hospitals.

The commission calculated hospitals' costs per day by dividing their total operating costs (i.e., the cost of inpatient and outpatient care) by total adjusted inpatient days.[1] The commission calculated costs per admission by dividing the hospitals' total operating costs by the total number of adjusted admissions.[2] Average costs per discharge were determined on the same principle as the per-admission calculation but excluded such variables as deaths, transfers, lengths of stay over 120 days, and patients whose charges exceeded $100,000 to avoid skewing hospitals' discharge costs due to these extreme situations.

[1]The commission uses a formula to convert outpatient visits into inpatient days.

[2]The commission uses a formula to convert outpatient visits into inpatient admissions.

## Wyman Park's Costs Analyzed

Based on our review of the commission's 1985 cost data for each of the 16 peer group hospitals, Wyman Park ranked third lowest for average cost per admission ($3,232), sixth lowest in average cost per discharge ($2,870), and fifth lowest in average cost per day ($455). Generally, the hospitals having lower costs than Wyman Park did not offer the same health care services. For example, the commission's data showed that, unlike Wyman Park, three of the four hospitals having a lower average cost per day did not provide coronary care or inpatient acute psychiatric health care services. Table 2.1 shows Wyman Park's 1985 average cost per admission, discharge, and day relative to its peer group hospitals.

**Table 2.1: Maryland Hospital Commission Data Comparing Wyman Park's 1985 Costs Per Admission, Discharge, and Day**

| Average cost per | | | | | |
|---|---|---|---|---|---|
| Admission | | Discharge | | Day | |
| Hospital[a] | Cost | Hospital | Cost | Hospital | Cost |
| 1. A | $2,789 | 1. A | $2,236 | 1. A | $354 |
| 2. B | 3,051 | 2. B | 2,488 | 2. B | 363 |
| **3. Wyman Park** | **3,232** | 3. C | 2,612 | 3. C | 390 |
| 4. D | 3,361 | 4. D | 2,679 | 4. D | 417 |
| | | 5. E | 2,783 | **5. Wyman Park** | **455** |
| 13. M | 3,959 | **6. Wyman Park** | **2,870** | 6. F | 470 |
| 14. N | 3,994 | | | | |
| | | 15. O | 3,696 | 15. O | 593 |
| | | 16. P | 3,980 | 16. P | 660 |

[a]The commission did not have admissions data for 2 of the 16 hospitals.

## Affiliation With the Johns Hopkins Health System

In January 1986, Wyman Park negotiated an affiliation agreement with the Johns Hopkins Health System, which is composed of four other Baltimore area health care providers—Johns Hopkins Hospital, Johns Hopkins Health Plan, Francis Scott Key Medical Center, and North Charles Hospital. Under the agreement, all of Wyman Park's 120 medical/surgical beds were relocated to North Charles Hospital in October 1986. After October 1986, Wyman Park's on-site inpatient capability consisted of 75 beds—35 psychiatric and 40 drug/alcohol abuse beds.

The Maryland Health Services Cost Review Commission reviewed and accepted Wyman Park's and North Charles's consolidation agreement, which projected various efficiencies and economies. These economies were projected to result primarily from an overall reduction in the two hospitals' beds and the consolidation of such services as bulk supply orders, equipment sterilization, and security forces.

According to opinions by DOD's and HHS's Offices of General Counsel, the affiliation agreement will not alter Wyman Park's USTF status. It will continue to provide care to uniformed services patients in accordance with established USTF policies and procedures. No change will occur in attending physicians (Wyman Park physicians will provide care at North Charles), quality assurance mechanisms, reimbursement, or billing practices. DOD approved the affiliation agreement provided that, among other things, the scope of services to uniformed services patients would remain the same.

# Pacific Medical Center's Costs Were Not Compared to Other Washington Hospitals

The Washington State Hospital Commission did not compare PMC's costs to those of other hospitals in the state. We too did not make such a comparison because data necessary for determining which hospitals were comparable to PMC were not available. The commission, however, established an average daily patient rate based on PMC's costs. PMC's patient rate has increased since 1985. However, the government's reimbursement to PMC for uniformed services patients was never based on the approved daily patient rate, but initially on billed charges or, since 1984, a fixed-price contract. PMC data showed that the fixed-price contract reduced projected USTF costs.

## PMC's Costs Compared Over Time

According to Washington State Hospital Commission officials, between 1985 and 1987, PMC's costs were not compared to those of other hospitals in the state. Commission officials told us that PMC's uniformed services contract, which accounted for 60 percent of its patient revenues, provided a unique funding source that made it unlike any other hospital in the state. Consequently, the commission assigned PMC, along with 10 other hospitals having unique factors, to an unclassified, noncomparable group.

The commission did not compare the costs of PMC and the 10 other unclassified hospitals to each other or to those of other hospitals in the state. Instead, based on analyses of each hospital's costs over time, the commission established a target revenue amount for each hospital for the ensuing calendar year. To determine a hospital's target revenue amount, the commission considered, among other things, the prior year's budget, inflation, addition/deletion of services, capital investments, and projected changes in patient volume. Once the commission approved a hospital's revenue amount, it then determined the maximum average daily patient charge that the hospital could not exceed without penalty.

According to commission data, PMC's average daily patient rate has increased since 1985. PMC's 1985 commission-approved average daily rate was $862. In 1986, PMC's approved daily rate grew to $906—the highest of all 106 hospitals in the state. PMC's daily rate increased to $919 per day for 1987. The government, however, has not reimbursed PMC based on its commissioned-approved daily rate. Since September 1984, the government has reimbursed PMC based on a negotiated fixed-price contract.

## Fixed-Price Contract Reduced DOD's Costs

In September 1984, DOD changed PMC's fee-for-service payment mechanism to a negotiated fixed-price contract amount. Under the terms of the contract, DOD reimbursed PMC about $2.6 million per month from September 1, 1984, through December 31, 1985. According to hospital data, the fixed-priced agreement reduced DOD's 1985 projected costs of about $35 million to an actual cost of $30.5 million. Beginning on January 1, 1986, and annually thereafter, PMC's fixed-price agreement allowed for two adjustments to the monthly amount. One adjustment would occur based on rate increases authorized by the Washington State Hospital Commission. The other adjustment could occur if the number of unduplicated users increased or decreased by more than 10 percent from the base-year (Sept. 1983-Aug. 1984) population. A PMC official stated that DOD made adjustments only for the former factor.

As a result of the congressionally imposed expenditure cap, PMC's 1987 fixed-price contract amount was reduced, and the terms of the contract were modified. Under the new agreement, which covered calendar year 1987, the government reimbursed PMC about $2.08 million per month, for a total annual amount of $25 million. This amounted to about a $10 million reduction from the 1986 contract amount of about $35 million. Assuming the same number of 1986 unduplicated users (23,700), the government's cost per user was reduced from $1,460 in 1986 to about $1,054 in 1987. The terms of the 1987 contract excluded increases to the contract amount, as allowed in the past, resulting from rate increases authorized by the Washington State Hospital Commission. The contract also stipulated that payments in a calendar year cannot exceed the prior year's payments by more than 10 percent. Therefore, PMC's 1988 maximum contract amount cannot exceed $27.5 million ($25 million in 1987 plus 10 percent, or $2.5 million). Because the fixed amount in 1988 and beyond is the product of the number of unduplicated users and an annual market rate, PMC can request a renegotiation of the 10-percent limit if the market rate increases by at least 10 percent over the rate for the prior year. Beginning in January 1989, payments can be adjusted to reflect any change in the number of unduplicated users during the immediate past 12-month period.

# Increased Reimbursements to Two Texas USTFs

DOD reimbursements to two Texas USTFs substantially increased from 1984 to 1985. According to DOD's data, St. Joseph Hospital in Houston received about $8.4 million for the first 6 months of 1985 compared to about $2.1 million for the first 6 months of 1984—a 300-percent increase. DOD's data also showed that St. Mary Hospital in Port Arthur received about $3 million for the first 6 months of 1985 compared to about $0.7 million for the first 6 months of 1984—a 329-percent increase. Discussions with and data provided by USTF officials in Texas showed that increased reimbursements resulted from (1) increased numbers of new patients, (2) added inpatient beds, and (3) expanded outpatient services.

## Several Factors Led to Increased Reimbursements

The Sisters of Charity headquarters USTF officials told us that several factors contributed to overall increased costs at St. Mary and St. Joseph as well as other Texas USTFs.

- In October 1984, DOD authorized the Sisters of Charity to redistribute its 110 inpatient beds among all four USTFs. Before this authorization, all 110 beds were located at the USTF in Nassau Bay—St. John Hospital.
- In December 1984, DOD approved a Sisters of Charity effort to conduct a USTF awareness campaign, which involved mailing brochures to about 17,000 eligible families in the state. In fiscal year 1985, the four Texas USTFs registered about 14,550 new patients, of whom St. Joseph and St. Mary registered about 7,700.

St. Joseph hospital officials told us that increased users and added inpatient capability increased DOD reimbursements from 1984 to 1985. These officials confirmed headquarters data which showed that in fiscal year 1985 the hospital treated 10,000 unduplicated users—5,100 of whom were new patients—representing a 42-percent increase over the about 7,100 unduplicated users in fiscal year 1984. In October 1984, DOD authorized St. Joseph to provide inpatient services for the first time since the inception of the USTF program. St. Joseph was allocated 25 beds, which were not restricted to any specific inpatient service. According to the Sisters of Charity headquarters officials, because St. Joseph is a major teaching and referral hospital with residency training programs, its inpatient Blue Cross negotiated rates, which are the basis for uniformed services reimbursement, are the highest of the four Texas USTFs.

St. Mary hospital officials told us that increased users, added inpatient beds, and expanded outpatient capability increased its DOD reimbursement from 1984 to 1985. These officials confirmed headquarters user data which showed that the hospital treated about 3,500 unduplicated users in fiscal year 1985—2,600 of whom were new patients. This represented a 44-percent increase from about 2,400 unduplicated users in fiscal year 1984. In October 1984, DOD also authorized 10 inpatient beds for the first time since the program's inception. Moreover, in August 1983, St. Mary expanded its outpatient clinics to serve the growing numbers of uniformed services beneficiaries. These clinics reached capacity by February 1984. In May 1985 St. Mary converted a nearby high school into an ambulatory care clinic primarily for uniformed services beneficiaries. Of the approximately 1,300 to 1,400 monthly clinic visits, uniformed services patients accounted for 90 to 95 percent.

# Contractors' Studies Generally Showed USTFs to Be Cost Effective

Three private contractors studied the USTFs' costs of providing medical care and concluded that generally the USTFs provided health care services in a cost-effective manner. Booz-Allen and Hamilton, Inc., concluded that overall the USTFs were as cost effective as the CHAMPUS providers during fiscal years 1983 and 1984 and were more cost effective than CHAMPUS for fiscal year 1985 through June 30, 1986. Arthur Andersen and Company concluded that the Maryland USTF's costs were comparable to those of other hospitals in the same geographic region. Ernst and Whinney concluded that the Texas USTFs' charges were lower than those of CHAMPUS and lower than or comparable to those of Medicare. In addition, the Ernst and Whinney report indicated that patient satisfaction was very high for treatment received at the USTFs.

## DOD's Study of USTFs' Costs

In 1985, DOD contracted with Booz-Allen to compare the cost to the government of medical care provided at each USTF and at selected civilian facilities under CHAMPUS for two different time periods—fiscal years 1983 through 1984 and fiscal year 1985 through June 30, 1986. The cost to the government under CHAMPUS excludes all beneficiaries' copayments and deductibles. Booz-Allen prepared a report for each of the two time periods because the government reimbursed the USTFs under different methodologies, as shown in table 5.1.

**Table 5.1: Reimbursement Methodologies Used for Two Booz-Allen Reports**

| Report | Time period | Reimbursement methodology |
|---|---|---|
| Transitional | 10/1/82-9/30/84 | Billed charges |
| Operational | 10/1/84-6/30/86 | Individually negotiated rates |

Booz-Allen's transitional and operational reports are discussed below. Based on our review and discussions with the DOD official responsible for monitoring the Booz-Allen contract, these reports' methodologies and findings appear to be reasonable.

## Transitional Report

Booz-Allen's Transitional Phase Report, dated October 19, 1987, compared and analyzed the cost to the government during fiscal years 1983 and 1984 for care provided at each of the 10 USTFs to the costs of selected CHAMPUS providers in the same geographic area. USTF and CHAMPUS costs were compared on both a diagnoses and procedures level. The analysis compared the total costs on a claim for 40 inpatient and 49 outpatient diagnoses and 22 inpatient and outpatient procedures. In addition to comparing USTF and CHAMPUS costs, the study also compared

patterns of inpatient and outpatient utilization and use rates by age, sex, and beneficiary category (i.e., dependents of active duty, retirees, dependents of retirees, and survivors). The study also quantified the impact of treating beneficiaries age 65 and older at each USTF, since this age population generally is not covered under CHAMPUS but must use Medicare or other sources of payments.

The report stated that the analysis conducted on the transitional phase data indicated that the USTF program was as cost effective as CHAMPUS in providing care to military beneficiaries during fiscal years 1983 and 1984. The report also stated that although the USTF program probably increased access to medical care in a number of the geographic areas studied, use rates among the population served are lower than national experience, and overutilization does not appear to be a problem. In addition, during fiscal years 1983 and 1984, 19.8 percent of all the USTF claims (121,682) and 26 percent of the costs ($34,174,409) were associated with services to beneficiaries 65 years and older. This represents a significant portion of both the inpatient and outpatient care provided.

## Operational Report

Booz-Allen's Operational Phase Report, dated November 9, 1987, compared and analyzed the cost to the government from October 1, 1984, through June 30, 1986, for care provided at each of the 10 USTFs to selected CHAMPUS providers in the same geographic area. The same methodologies used to develop the transitional report were used for the operational report.

The report's overall conclusion was that the USTF program was more cost effective than CHAMPUS in providing care to military beneficiaries during the period October 1, 1984, through June 30, 1986.

In its assessment of the different payment mechanisms used at the USTFs, Booz-Allen concluded that the all-inclusive per diem rate, the payment mechanism used at Bayley Seton and Wyman Park from October 1984 to June 1986, appears to have effected the greatest cost improvement for the government. The use of CHAMPUS prevailing rates at Coastal Health, now Martin's Point, was an effective payment mechanism for this USTF, which provides only outpatient care.

## USTFs' Studies Compare Costs

In the fall of 1986, the USTFs (except the one in Seattle) engaged Arthur Andersen to compare their costs to other providers. As of January 1988, only the Maryland USTF cost comparison study had been completed.

Arthur Andersen's cost comparison studies for the USTFs in Massachusetts and New York were ongoing. The four Texas USTFs, having terminated their Arthur Andersen study, later contracted with Ernst and Whinney and provided us with their report in May 1987. The USTFs in Ohio and Maine discontinued their cost comparison studies with Arthur Anderson because the studies became too costly. Discussed below are the results of the cost comparison studies for the Maryland and Texas USTFs.

## Study of Maryland USTF

In June 1987, Arthur Andersen completed a study that compared the inpatient costs of treating uniformed services patients at Wyman Park to the estimated costs of inpatient care at 27 other urban and rural hospitals in the central Maryland region for the period July 1, 1985, through June 30, 1986. Specifically, the study compared Wyman Park's uniformed services average charge and regional hospitals' combined average charge by diagnosis-related group (DRG).[1] Arthur Andersen used utilization and charge data from the Maryland Health Services Cost Review Commission to make its comparisons. Arthur Andersen staff reviewed both Wyman Park's and comparison hospitals' data for validity and reliability.

The study found that in general, Wyman Park's uniformed services charges were comparable to those of other regional hospitals. In total, Wyman Park's charges were about 1 percent higher than the estimated charges for the comparison group.

In general, Arthur Andersen's methodology appears reasonable. However, the study's finding that Wyman Park's total uniformed services charges were about $61,600, or 1 percent, higher than the estimated charges for the comparison group may be overstated. The study compared Wyman Park's charges to the combined average charge for all hospitals in the central Maryland region. The study noted that this region includes the entire mix of high- and low-cost hospitals and urban and rural facilities. The study also stated that the central Maryland region was used because it represented the geographic residence of more than 90 percent of Wyman Park's uniformed services patients. We believe, however, that the combined regional average charge may have been higher if the traditionally less costly rural hospitals were excluded from the comparison group. It is likely that Wyman Park's total charges

[1] "Diagnosis-related groups" refers to a prospective payment methodology whereby hospitals are reimbursed based on the patients' diagnosis, regardless of their length of stay.

would have been less than those of the comparison group if only peer hospitals had been included in the comparison, as the Maryland commission did when it included only 15 similar hospitals in its comparison group.

## Study of Texas USTFs

In May 1987, Ernst and Whinney completed a cost-comparison study for the USTFs in Texas for the period January through April 1987. The Ernst and Whinney study compared (1) USTFs' charges to those of Medicare and CHAMPUS for 10 of the most common DRGs treated at the USTFs, (2) USTFs' charges for 12 high-frequency procedures to those of a representative group of area hospitals, (3) USTFs' average inpatient revenue per discharge and average cost per discharge to those of similar area hospitals. The study also assessed the level of USTF patient satisfaction with the treatment received. In general, the study found that

- USTFs' charges on a DRG basis were lower than CHAMPUS charges for the 10 DRGs analyzed and lower than or comparable to Medicare charges for most of the 10 DRGs;
- USTFs' charges for 12 high-frequency procedures were lower than or comparable to charges at greater Houston hospitals;
- USTFs' average inpatient revenue per discharge was about $184 lower than that of other similar area hospitals, while USTFs' average cost per discharge was about $168 lower than that of similar area hospitals; and
- of approximately 400 patients surveyed at two of the four USTFs—St. John and St. Joseph—about 96 percent indicated they were either very satisfied or generally satisfied with the way they were treated by employees and staff.

Ernst and Whinney's methodology and findings appear reasonable. We note, however, that Ernst and Whinney relied on USTF-provided data on costs of specific DRGs. It did not, nor did we, verify the accuracy of these data.

## GAO Observations

Since the time periods evaluated in the comparative cost studies, substantial changes in the CHAMPUS and USTF methods of reimbursement have taken place. The recent changes in reimbursement methodologies (1) have reduced federal expenditures to the USTFs and (2) will reduce CHAMPUS costs for certain covered services.

In fiscal year 1987, the Congress "capped" DOD payments to USTFs and directed DOD to establish fixed-price contracts at all 10 USTFs. This action

limited fiscal year 1987 DOD USTF expenditures to about $115 million—a reduction of more than $50 million from the fiscal year 1986 funding level. In addition, the fixed-price contracts significantly reduced some USTFs' revenues. The Seattle USTF received about $10 million less in 1987 than it did in 1986 as a result of the funding cap. The cap and the fixed-price contracts remained in effect for fiscal year 1988, limiting USTFs revenues to about $126 million.

In October 1987, DOD implemented a DRG-based payment system under CHAMPUS. As a result of this change in reimbursement methodology, DOD estimated savings of more than $100 million in fiscal year 1988.

The CHAMPUS DRG payment system applies only to specific inpatient services. The system excludes (1) certain inpatient health care services (e.g., pediatric services in children's hospitals, psychiatric services, and alcohol and drug abuse services) and (2) all outpatient services. As the DRG system evolves, services are likely to be added and deleted. Because payments for excluded services may increase at the same time DRG payments for included services may decrease, we do not know what effect DRGs will have on overall CHAMPUS costs.

Given that the Booz-Allen and Ernst and Whinney studies found that generally USTFs were as cost effective as CHAMPUS or more cost effective, the question arises as to whether this finding would change if USTF and CHAMPUS costs under the new methods of payment were compared. We have no basis on which to provide a definitive response to this question, especially since DRGs have been implemented for only a short time and the estimated savings are still unproven. However, two factors raise doubt about whether the new payment methods would result in any change in the study findings:

- CHAMPUS DRGs apply only to certain inpatient services, while the USTFs provide large amounts of outpatient care (two USTFs provide outpatient care exclusively).
- Some inpatient services provided at the USTFs are excluded from the DRG payment system.

# USTFs Visited by GAO

## USTF in Maryland

The Wyman Park Health System is a 75-bed hospital in Baltimore. The hospital provided comprehensive health care services to almost 21,000 uniformed services patients in fiscal year 1986 as well as to Medicaid, Medicare, and commercially insured patients. The hospital's staff of about 600 includes over 50 salaried physicians. Its on-site inpatient capability includes psychiatric and drug/alcohol abuse services. Wyman Park treats medical and surgical inpatients off site at a nearby affiliated hospital. A state commission regulates the hospital's costs and charges annually as required by state law.

## USTFs in Texas

The Sisters of Charity of the Incarnate Word, with corporate headquarters in Houston, operates USTFs in Galveston, Nassau Bay, Houston, and Port Arthur. In fiscal year 1986, the four USTFs provided comprehensive inpatient and outpatient health care services to about 43,000 uniformed services patients, as well as Medicare, Medicaid, and commercially insured patients.

Texas does not have a state hospital commission to regulate hospitals' costs. DOD's uniformed services reimbursement to each USTF is based on independently negotiated Texas Blue Cross rates.

St. Joseph Hospital, an 840-bed full-service facility, is a major teaching and referral center in Houston. The hospital offers a medical education teaching program for about 70 medical residents through an affiliation with the University of Texas Medical School. Because the Texas Corporate Practice of Medicine Act prohibits hospitals from employing physicians, St. Joseph contracts with about 700 full-time and associate physicians.

St. Mary Hospital, a 278-bed general acute care facility in Port Arthur, treats most of its uniformed services beneficiaries on an outpatient basis. The hospital operates a large outpatient facility, known as the Bishop Byrne Regional Wellness Center, primarily for uniformed services beneficiaries. In addition to the traditional outpatient services, the center offers occupational and physical rehabilitation, health education classes, and aerobic exercise classes as means of preventive medicine.

## USTF in Washington

The Pacific Medical Center, a 152-bed hospital in Seattle, provided comprehensive inpatient and outpatient health care services to 23,700 uniformed services beneficiaries in 1986. PMC contracts with a nonprofit group practice for physician and professional services. PMC operates a

health maintenance organization and four satellite outpatient clinics. In addition, it serves as a referral center for many area community clinics. PMC also provides a medical education teaching program and medical research through an arrangement with the University of Washington Medical School. A state commission regulated PMC's costs and charges, as required by state law, until June 1987, when PMC contracted out its inpatient services.

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