UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

092148

DIVISION OF FINANCIAL AND
GENERAL MANAGEMENT STUDIES

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AUG 23 1976

The Honorable Vernon McKenzie
Acting Assistant Secretary of Defense
(Health Affairs)

Dear Mr. McKenzie:

We have completed a survey of the accounting and information systems used to evaluate cost and workload in military hospitals. We noted that the way each of the military medical services account for cost and workload data varied and that there were no standard accounting and information systems for recording and reporting comparable data. It was virtually impossible, therefore, for Department of Defense (DOD) officials to make valid comparisons of efficiency and effectiveness of military service hospitals.

In order to make rough comparisons of cost and output at three military hospitals we visited, it was necessary to adjust some financial and other data produced by the accounting and information systems and to obtain data not included in the systems. Our comparisons disclosed indications of disparity in the allocation of resources.

On May 20, 1976, we briefed representatives from your office and the Assistant Secretary of Defense, Comptroller, on our survey observations. They generally concurred with our observations and stated that a lack of consistency and comparability of available accounting and of other information precluded DOD from making valid comparisons of cost and workload data.

During the briefing we advised the DOD representatives that we were expanding our work to cover additional hospitals and that, at the conclusion of the review, we will request formal comments from DOD on any recommendations we might make. They said that, because the feasibility of establishing a standardized accounting system for recording and reporting hospital costs and workload data is being considered, an interim written report from us containing our comments on the matters discussed during the briefing would be desirable. Accordingly, this letter outlines the major problems we observed and includes a copy of the briefing material presented on May 20, 1976.

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We made the survey at the Martin Army Hospital, Fort Benning, Georgia; the Air Force Regional Hospital, Eglin Air Force Base, Florida; the Naval Aerospace and Regional Medical Center, Pensacola, Florida; the U.S. Army Health Services Command, Fort Sam Houston, Texas; and the military medical service headquarters and cognizant DOD offices in Washington, D.C.

SURVEY RESULTS

The military services use numerous automated and manual accounting and information systems to accumulate hospital costs and workload data. These systems lack uniformity, however, and as a result information is not available to DOD which could be used to compare and evaluate hospital budgets, costs, and workloads.

DIFFERENCES IN BUDGETING FOR OPERATION AND MAINTENANCE COSTS

Operation and maintenance budgeting procedures vary among the military services. We noted that budgets submitted by the services do not include the same cost elements. For example,

--the Army excludes utility and maintenance costs,

--the Air Force excludes food procurement costs, and

--the Navy excludes dental operations costs (other than for inpatient care).

Since these cost elements are not included in the budget, they are not accounted for by the hospitals. It is difficult, therefore, to determine total costs for medical care at each hospital. Further, these cost exclusions negate valid comparisons of data on hospital operations unless special analyses are made to identify excluded costs and to accumulate comparable data.

METHODS OF ACCUMULATING COST AND WORKLOAD DATA VARIED

Methods used by the three military hospitals to accumulate cost and workload data varied for each of the three functions we surveyed; i.e., dental, radiology, and food service.

Dental

The three military departments measured dental workload on the basis of the number of dental procedures completed, and each military department used the same form for recording dental workload. However, the Army, Navy, and Air Force instructions used for determining what constituted a dental procedure, pertaining to fillings, extractions, and root canals, were different. There were also differences in accounting for cost. For example, unlike the Army and Navy, costs accumulated by the Air Force system did not include the cost of dental laboratory work.

Radiology

Radiology workload in the Army and Navy is accounted for by counting the number of X-ray exposures taken. Workload data of the two military services is not comparable, however, because of varying methods of counting exposures. Further, the Navy hospital consistently added 15 percent to its quarterly workload count to allow for exposures that might not have been recorded. Moreover, approximately 20 percent of the radiology exposures recorded by the Navy during the first quarter of fiscal year 1976 were erroneously counted twice; i.e., once when the exposures were made at outlying dispensaries and the second time when the exposures were evaluated at the hospital. If the Army method of measuring workload had been used by the Navy, the Navy's actual workload for the first quarter of fiscal year 1976 would have been about 35 percent less than that reported.

The Air Force measures its radiology workload by counting the number of films used; whereas, as indicated above, the Army and Navy count exposures taken. Since, in general, more than one exposure is placed on each film, the Air Force's reported workload will be relatively lower than that of the Army and Navy. This makes valid workload comparisons impossible.

Food service

Each of the military services account for food service workload by the number of rations served. However, in the Army and Air Force rations are computed by applying a factor to the number of people who are served at each meal; i.e., a factor of .20 is applied to the number of people who are served breakfast and a factor of .40 is similary applied to

numbers of people served lunch and dinner meals. The Navy, on the other hand, computes rations served by dividing total meals served by three. The workload reported by the Navy, therefore, is not comparable to the workload reported by the Army and Air Force.

DISPARITY IN RESOURCE ALLOCATION

We made an overall comparison of workload and staffing for the three hospitals and found indications of a disparity in the allocation of resources.

The Army hospital workload was 49 percent greater than that of the Air Force hospital, but the Army hospital operating staff was 72 percent larger. Similarly, the workload of the Navy hospital was about 1 percent less than that of the Air Force hospital, yet its operating staff exceeded that of the Air Force hospital by about 26 percent.

We also made an analysis of cost and workload data for dental and food service activities and found significant variances in the staffing level of the Army when compared to the Air Force or Navy.

The Army hospital's dental workload was 50 percent greater than the Air Force hospital's, yet the Army dental staff was 175 percent greater than that of the Air Force. A similar comparison between the Army and Navy dental activities showed that the Army's workload was about 66 percent greater than the Navy's, yet the Army had a dental staff about 163 percent greater than the Navy.

The Army's food service workload was 17 percent greater than the Air Force's, yet the Army food service staff was 63 percent greater than the Air Force staff. We noted a similar apparent disparity in staffing between the Army and Navy food service activities.

CONCLUSION

There may be good and valid reasons for the apparent disparity in resources which were allocated to the three military hospitals we visited. However, to insure equitable allocation and effective use of resources, DOD should identify and investigate these variances and others of this nature on a routine basis.

To facilitate the analysis required to identify such variances, it would appear that establishing a standardized DOD accounting system for recording and reporting hospital costs and workload data is desirable.

We would appreciate any comments you may have on the matters discussed in this report, including any plans you may have for establishing a standardized accounting and reporting system for hospital cost and workload data.

A copy of this report is being sent to the Assistant Secretary of Defense (Comptroller). If you wish to discuss any of the matters included in the report, please contact Mr. Harry C. Kensky, Associate Director, on 275-5198.

Sincerely yours,

D. L. Scantlebury
Director

Enclosure

ENCLOSURE I

CHARTS PRESENTED AT BRIEFING BY GAC TO DOD OFFICIALS ON MAY 20, 1976, ON SURVEY OF ACCOUNTING AND INFORMATION SYSTEMS IN MILITARY HOSPITALS

ENCLOSURE I

SURVEY OBJECTIVES

1. Evaluate the availability and usefulness of accounting information and systems used at military hospitals for accumulating costs, preparing budgets, and determining and analyzing workload.

2. Determine if DOD has adequate and compatible information to effectively manage military health care facilities and insure equitable allocation of funds, staffing, and other resources.

ENCLOSURE I

SCOPE OF SURVEY

We made our survey primarily at:

1. Martin Army Hospital
   Fort Benning, Georgia
2. Air Force Regional Hospital
   Eglin Air Force Base, Florida
3. Naval Aerospace Regional Medical Center
   Pensacola, Florida
4. U.S. Army Health Services Command
   Fort Sam Houston, Texas
5. Military service and various Department of Defense offices in Washington, D.C.

ENCLOSURE I

Overall Comparison of Military hospitals visited during our Survey (FY 75 Statistics Used)

Hospital	Average daily beds occupied	FY 1975 composite work units	FY 1975 total staffing	Total physi-cians	FY 1975 O & M budget
Army: Martin Army Hospital Fort Benning, Ga.	184	341,640	1424	88	$10,743,700
Air Force: Air Force Regional Hospital Eglin Air Force Base, Fla.	152	228,675	827	54	3,563,000
Navy: Naval Aerospace Medical Center Pensacola, Fla.	162	226,399	1046	90	6,307,243
Recap statistics					
Army Statistics / Air Force Statistics	121%	149%	172%	163%	302%
Army Statistics / Navy Statistics	114	151	136	98	170
Navy Statistics / Air Force Statistics	107	99	126	167	177

ENCLOSURE I

ENCLOSURE I

FUNCTIONS SELECTED FOR DETAILED COMPARISON OF COSTS, WORKLOAD, AND STAFFING

1. Dental
2. Radiology
3. Food Service

ENCLOSURE I

DENTAL CARE

Schedule showing a comparative analysis of costs to provide dental care at an Army, Air Force, and Navy hospital during the first quarter, fiscal year 1976.

Military service	Staffing mil/civ	Work measurement	Number of work units completed	Total costs	Unit cost
Air Force	79/5	Completed dental procedures	79,497	$323,960	$4.08
Army	82/149	Completed dental procedures	119,020	864,000	7.26
Navy	78/10	Completed dental procedures	71,647	353,962	4.94

Analysis:

Air Force / Army	36%	-	67%	37.5%	56%
Navy / Army	38	-	60	41	68

Explanatory notes:

The cost figures above were developed in an attempt to compare unit workload costs of the three military services. These figures are not necessarily those that would be compared at higher command levels.

ENCLOSURE I

RADIOLOGY

Schedule showing a comparative analysis of costs to provide radiology services at an Army, Air Force, and Navy hospital during the first quarter, fiscal year 1976.

Military service	Staffing mil/civ	Work measurement	Number of work units completed	Total costs	Unit cost
Air Force	22/5	No. of films used	35,605	$ 97,106	$2.73
Army	14/16	No. of film exposures	85,376	151,000	1.77
Navy	23/1	No. of film exposures	49,065	80,223	1.64
Analysis:					
Air Force / Army	90%	-	N/A%	64%	N/A%
Navy / Army	77	-	57	53	93

Explanatory notes:

1. The Air Force radiology workload measure (number of film units used) is not comparable to Navy and Army workload measures. The Air Force workload will always be lower when counting the number of film units used because at least three and sometimes more than three exposures can be placed on one film. Therefore, Air Force workload will be lower and unit cost will be higher.

ENCLOSURE I

FOOD SERVICE

Schedule showing a comparative analysis of costs to provide food service at an Army, Air Force, and Navy hospital during the first quarter, fiscal year 1976.

Military service	Staffing mil/civ	Work measurement	Number of work units completed	Total costs	Unit cost
Air Force	16/24	Rations served	25,052	$203,285	$8.11
Army	9/56	Rations served	29,386	288,000	9.80
Navy	3/38	Rations served	22,013	192,910	8.76
Analysis:					
Air Force / Army	62%	-	85%	71%	83%
Navy / Army	63	-	75	67	89

Variances in Workload Measurement

Radiology

Army - number of film exposures
Navy - number of film exposures
Air Force - number of films used

Navy - film exposures taken at outlying Navy dispensaries are counted twice. The Navy (at Pensacola, Fla.) also added 15% to the total exposures recorded during the quarter.

Dental

There were several variances among the services in the instructions used for counting dental procedures.

Food Service

Meals used to compute rations served are weighted differently.

Inpatient Workload

The services have different interpretations of patients subsisting out, on liberty, in holding companies.

Outpatient Care

The services have different interpretations of what constitutes an outpatient visit. Care considered a "limited service" by the Navy may be counted as an outpatient visit by the Army or Air Force.

ENCLOSURE I

Variances in Operations and Maintenance Budgets

Army

Does not include Utilities and Maintenance in their O&M Budget. These costs are paid by the host installation.

Navy

Naval Hospitals do not include dental activities in their O&M Budget. Dental activities are funded and managed separately.

Air Force

Food Procurement costs are not included in O&M Budget.

ENCLOSURE I

Organizational Variances in Military Hospital Systems

Army

-CONUS hospitals managed by Health Services Command.
-Other hospitals managed by Army Surgeon General.

Air Force

-Hospitals are managed by the command responsible for the Air Force installation where the hospital is located. Overall management is the responsibility of the Air Force Surgeon General.

Navy

-Some hospitals under the Bureau of Medicine and Surgery.
-Other hospitals are considered "fleet" hospitals and managed separately.
-Navy dental activities are funded and managed independently of the core hospital.

ENCLOSURE I

CONCLUSIONS

1. Variances in measuring workload and accumulating cost make it virtually impossible to accurately compare workload among the military hospitals.

2. Variances in organizational structure cause problems in identifying all medical care costs.

3. An overview of the hospitals selected for our survey indicates an apparent inequality in allocation of staffing and funding. The lack of consistent and comparable data prevents a valid comparison of resources.

ENCLOSURE I

PRIOR STUDIES MADE IN THIS AREA

- Review and Evaluation of the Military Hospital Cost Accounting System, Ernst and Ernst, September 1965.

- Medical and Dental Care in the Department of Defense, Surveys and Investigations Staff, Committee on Appropriations, House of Representatives, April 1974.

- Report of the Military Health Care Study, DOD, HEW and OMB, December 1975.

Generally, all of these studies support our observations of inconsistencies among the services in accumulating cost and workload data.

ENCLOSURE I

FUTURE WORK BY GAO

1. Review procedures at additional military hospitals.

2. Compare procedures of hospitals within the same service.