Mr. Chairman and Members of the Subcommittee:

We appreciate your invitation to be here today to discuss the Veterans Administration's management, acquisition, and use of automatic data processing (ADP) in support of its medical care facilities. With me today are Mr. George Sotos, a Group Director in our Financial and General Management Studies Division, and Mr. James Williams, of our Human Resources Division.

INTRODUCTION

Our July 16, 1980, report deals with VA's planning for and acquisition of ADP resources, its control over development of automatic data processing (ADP) in support of its medical care facilities. With me today are Mr. George Sotos, a Group Director in our Financial and General Management Studies Division, and Mr. James Williams, of our Human Resources Division.

1/ VA Must Strengthen Management of ADP Resources to Serve Veterans Needs (FGMSD-80-60, July 16, 1980).
automated support systems, and the present and planned use of ADP resources VA-wide, including the medical care facilities. Our July 31, 1980, report / deals with procurement irregularities associated with five contracts for medical ADP equipment and services awarded by VA at the end of fiscal 1979. We understand that since completion of our field work the Subcommittee staff has more recently been investigating this area. As requested in your letter of August 1, 1980, we will concentrate today on VA's overall, long-range ADP planning and its current and proposed use of ADP resources at the medical care facilities.

Generally, in our review we found that long-range planning for use of ADP resources VA-wide is poor. ADP support to the medical centers has been decentralized, poorly coordinated, and sporadic. Future support being developed -- the Health Care Information System (HCIS) -- has begun without the planning, coordinating, and user involvement needed to assure its success.

Because of these and other management problems we identified, we have recommended that the Congress withhold further funding for the planned HCIS until it is assured that the VA will implement the substance of the recommendations we made in our July 16 report. We believe that withholding these funds is necessary to focus management attention on the problems that must be corrected before automatic data processing can make a

/ Five Contracts Awarded by VA at the End of Fiscal Year 1979 (HRD-80-101, July 31, 1980).
solid contribution to the quality of medical services for veterans.

I will discuss the problems we found, our recommendations, and the initiatives undertaken by VA during and subsequent to our reviews.

BACKGROUND

VA has 172 medical centers located throughout the United States and Puerto Rico. The Department of Medicine and Surgery (DM&S), which runs these medical centers, is the largest of VA's functional divisions. In fiscal 1979 DM&S had about 190,500 employees or about 89% of the total VA staff. In providing health services to veterans, DM&S uses and manages data processing resources in such specialized areas as automated prescription systems, cardiovascular monitoring, laboratory testing, and such administrative support as hospital bed census reports. Although some medical centers perform functions that others do not, there are about 13 common functions at each medical center that could be automated. These common functions, which VA identified in its 1978 proposal for an HCIS and which were estimated to cost $520 million include:

- Admissions
- Building management
- Clinical laboratories
- Dental
- Dietetics
- Discharges
- Nursing
- Neurology
- Pharmacy
- Radiology
- Supply
- Transfers, and
- Treatment Scheduling.
LONG-RANGE PLANNING

During fiscal 1979, VA spent about $34.7 million for medical ADP efforts and has estimated that it will spend $25.5 million and $36.2 million for fiscal 1980 and 1981, respectively. These estimates are not available as a budget line item but were provided in response to a request by the Chairman, House Appropriations Subcommittee on HUD - Independent Agencies. We found that VA planning for the use of these resources is poor. VA does have a formal, long-range planning "Process"; however, we found weaknesses in the process. For example, it is not supported by comprehensive guidelines or the procedures needed to develop the documents which identify and communicate management commitment to meeting long-range ADP needs. Also, the ADP plans developed under VA's process have proven unrealistic because each VA department is given total latitude to develop its own requirement component. VA's Office of Data Management and Telecommunications (ODM&T) receives and assembles these into an unprioritized package. Under these circumstances, the plan is a statement of individual wants rather than a cohesive working tool for achieving the agency's objectives. The lack of serious planning, we believe, is contributing to poor management of computer resources and delaying the contribution ADP can make to improved medical services for our Nation's veterans. Officials of ODM&T, the organization responsible for the plan, acknowledge these planning weaknesses.
CURRENT USE OF ADP RESOURCES WITHIN THE MEDICAL CENTERS

Present ADP support to the medical centers is decentralized, poorly coordinated, and sporadic. Medical centers have considerable latitude in acquiring computers and developing automated systems. We found examples of different medical centers independently acquiring computers and developing similar systems. We also found some medical centers with several automated functions and other medical centers without any in-house automated support. At the time of our review, VA was unable to provide an inventory of either the number of computers or the automated applications within the medical centers— even though this information had been requested by the Administrator in June 1978. From incomplete records we identified at least 250 computers within the medical centers. In August 1980, more than two years after the Administrator's initial request, VA finalized an inventory of all their computers which identified the principal use of each. This inventory identified over 600 computers used for medical support, 95 percent of them located at the medical centers.

The present approach has resulted in (1) foregone economies through failure to take advantage of central buying of computer hardware, (2) duplicative development efforts for applications that are being automated, and (3) a failure to share with other medical centers those applications that have been successfully automated. For example:
Example 1

Five of these medical centers had acquired some aspects of an automated pharmacy system. Savings might have been achieved had the first successful system been standardized. Failure to standardize has delayed improvements in patient care that other medical centers might have obtained from an automated pharmacy system.

Example 2

Two medical centers (Houston and San Antonio) have different computer systems which provide electrocardiograph support. The director of the San Antonio medical center said that if he had been aware of the intricacies of computer systems he would have purchased equipment compatible with Houston's so they could share computer programs. Again, savings might have been achieved had these two medical centers acquired similar equipment.

Example 3

The New Orleans medical center had no in-house automated support except for one small research computer. The director of the center stated that both his technical and his administrative staff were heavily worked and that automated support could help lighten their burden as well as improve patient care. He added that he was baffled by the situation, being familiar with such automated systems in previous employment. On the other hand, the San Antonio Medical Center has at least seven automated functions.
Example 4

The DM&S also receives ADP support from VA regional data processing centers. This includes medical computer support applications, such as an on-line pharmacy system in the Los Angeles area, and various batch processing applications such as for hospital patient inventories and social work services. In 1977, a consultant looked at about 150 such computer support applications operated for DM&S these centers. The consultant recommended that 69 of the applications be reevaluated because:

(a) 37 of them might be partially duplicated by other applications and (b) 32 of them were operated for just one user and might have some value to others, or perhaps should be terminated. Such an evaluation is an important planning prerequisite to the expansion of any organization's ADP capacity. VA has done no such evaluation and had no plans to do one at the time of our review.

HEALTH CARE INFORMATION SYSTEM

As a result of reviewing VA's planning process and its current status of automated support for medical centers, we are very concerned about the planning for this major capability. VA currently lacks a mechanism for effectively involving the various medical centers in any centralized ADP project. VA's ADP planning process has no formal structure that assures effective user participation and the establishment of a sense of user responsibility and accountability for the formulation of requirements. Automation within VA's medical centers has hinged
largely on the degree of initiative of the individual medical centers. Our experience over past years in many places has shown that those in an agency who will be expected to use the output of completed systems should participate in formulating the requirements of those systems. Involvement of users early in the planning of a project can help assure that existing applications are not duplicated and that interactions between applications are identified and considered in the design. But most important, user involvement gives management some assurance that computer output will be effectively used.

VA's fiscal 1979 yearend procurements included contracts which indicate that VA intends to rely heavily on outside contractors to plan, identify requirements, and design the HCIS system. Even with such assistance, however, our experience has shown that the eventual users of the system -- the medical centers -- must participate fully in this process for it to be successful.

Obtaining the participation of the medical centers will not be easy. We found a serious lack of communication about ADP matters among the medical centers and the central office of DM&S. The medical center directors we spoke with are convinced that automation can help them improve patient care, but they are frustrated and puzzled about how to acquire this support and how to control it effectively.
The potential consequences of failure to have a solid basis for user participation are illustrated by experiences reported in a Department of Defense project quite similar to VA's proposed health care information system. This project, known as the Tri-Service Medical Information System (TRIMIS) was severely criticized in a report by the Chairman of the House Government Operations Committee dated March 27, 1979. The report stated that $70 million spent on TRIMIS since 1974 has essentially been wasted. It strongly criticized (1) the lack of user involvement in and responsibility for the program and (2) management's excessive dependence on a contractor to provide the necessary leadership.

As previously mentioned, many of the functions proposed for an HCIS have been independently automated by various medical centers. Those functions already automated must be critically examined to determine whether they can contribute to the HCIS capability whatever its final design form is, and thereby capitalize on VA's existing investment in automated medical support.

VA should also investigate the functional interdependencies between automated systems operated by other VA departments. The Department of Veteran's Benefits new Target system, which supports education, compensation, and pension benefits, could possibly be modified to validate veterans' eligibility for medical care at the time of admission to a medical center. VA is testing this concept now. Similarly, the existing automated management information system requires the gathering of tens of thousands of data elements
from the medical centers annually. Management reports automatically generated by components of the proposed HCIS could possibly eliminate part of this task and save thousands of staff-days. While this coordination and integration of intradepartment functions can be facilitated by contractors and committees, we are convinced that a formal ADP planning structure and a fully understood planning process are essential. That process should include participation and responsible coordination among the major user departments as well as within DM&S. We did not see such a structure at the VA during our review and we believe that until VA has one, HCIS will have the same problems experienced by the Department of Defense's TRIMIS program.

VA'S INTERIM SOLUTION AND YEAREND SPENDING

Because the HCIS will not begin to provide substantive ADP support until the late 1980s, at the earliest, VA initiated efforts to acquire some interim capabilities and has run into some serious problems. At the close of fiscal 1979 VA entered into 16 medical ADP procurements totaling about $15.7 million. This represents about 45 percent of VA's total 1979 expenditures of $34.7 million for medical ADP support. Five of these procurements (about $1.3 million) were to perform preliminary studies for the HCIS. The remaining $14.4 million was for 11 medical ADP procurements referred to as "interim solutions". These interim procurements involved a small number of ADP applications such as pharmacy, clinical laboratory, and centralized scheduling which
VA indicated were immediate needs to alleviate current problems at the medical centers.

Subsequent to the award of these contracts and issuance of purchase orders, inquiries were conducted into the propriety of the procurements by:

--- the Office of Management and Budget (OMB)

who initiated a review of these yearend contracts and purchase orders; requested the General Services Administration (GSA) to report to OMB all VA requests for ADP equipment or services over $10,000; recommended VA terminate seven of the contracts, alleging irregular procurement practices; and requested a Department of Justice inquiry into two of the seven contracts.

--- The Department of Justice reported to the Chairman of this Subcommittee in July 1980 that it was instructing the Federal Bureau of Investigation and the Public Integrity Section to proceed with an investigation into two of the contracts.

--- The House Veterans' Affairs Subcommittee on Special Investigations held three hearings on OMB's allegations and requested us to review the matter discussed below.
We reviewed specific issues raised by OMB regarding five of the terminated contracts which totaled about $2.6 million. This does not include the two procurements submitted to Justice by OMB. We found that VA violated Federal Procurement Regulations (FPR) in awarding these contracts. In some instances the contracting officer was responsible for the questionable practices related to these procurements, since final responsibility for insuring proper execution rests with him. However, because of the short time between the Administrator's August 28, 1979, approval of projects—which included four of the five contracts we reviewed—and the end of the fiscal year, the contracting officers were left with time to do little more than execute the paperwork. We believe that the program or user staffs from DM&S and ODM&T, who prepared the justifications for these procurements, share responsibility for the yearend procurement problems that occurred.

FPR §1-3.801-3(a) (1979), states:

"Personnel, other than the contracting officer, who determine types, quality, quantity, and delivery requirements* * * can influence the degree of competition and exert a material effect upon prices. Requirements issued on an urgent basis * * * should be avoided since they generally increase prices or restrict desired competition. Personnel determining requirements* * * have responsibility in such areas for timely, sound, and economical procurements."

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Some of the problems we found with the terminated yearend contracts are described in the following examples:

Example 1
VA awarded a contract for $748,891 for a company to demonstrate a clinical scheduling system at a VA medical center.

We found that VA was not authorized by the GSA in accordance with Federal Property Management Regulation (FPMR) 101-36.203-2(a) to proceed with this procurement; therefore, its award of the contract was not authorized.

Example 2
VA awarded a contract to convert and improve a VA-owned pharmacy application for use on Digital Equipment Corporation (DEC) computers. In responding to an OMB observation that the justification for this contract was inadequate, VA noted that on the basis of longstanding needs the Administrator decided to proceed with this procurement.

We agree with the VA's assertion on the longstanding need for the pharmacy system. However, at the time of this procurement there was little or no documentation to justify the procurement. This is not in accord with FPMR 101-35.206, which requires a well-documented general systems and/or feasibility study for any acquisition over $100,000.

Also, in its response to OMB, VA implied that the Administrator approved this procurement. We were told by the contracting officer, however, that the Administrator had not
approved this procurement nor does the contract record indicate that he approved it.

**Example 3**

Based on its position that the urgency to obligate yearend funds would not permit preaward negotiations, the VA awarded a firm, fixed-price contract for a pharmacy system conversion, based on one proposal, without performing a cost or price analysis and without conducting negotiations as required by the FPRs. Although this contract was subject to a postaward audit of the contractor's cost or pricing data, FPR 1-3.807-7 precludes use of postaward audits as a cure for defective or absent negotiations.

**RECOMMENDATIONS**

To overcome these problems and others noted in our July 16, 1980, report we recommended that the Administrator of Veterans Affairs:

--Strengthen the formal ADP planning process by requiring wider user participation, more accountability at the senior management level, and greater consideration of the interdependencies among users.

--Establish better coordination of the use of ADP resources among the hospitals.

--With the help of users, analyze more thoroughly the health care system being planned. This analysis should
include a detailed study of available capabilities in-house, as well as in other Federal agencies and the private sector.

--Direct the Department of Medicine and Surgery to evaluate all existing computer applications used by the hospitals to determine whether they are cost effective, should be designed as standard VA systems for use by other hospitals, or be terminated.

Our other recommendations pertained to the management and control of modifications and development of software applications, developing a computer capacity plan, and placing greater emphasis on competitive acquisitions.

We also recommended that the Congress withhold further funding for the Hospital Care Information System until it is assured that the VA will implement the substance of the recommendations we have made.

RECENT VA INITIATIVES

We briefed the Deputy Administrator for VA on May 16, 1980, and learned that the VA has moved to establish a greater degree of senior management involvement in the management and control of the VA-wide ADP resources. Several policy directives were signed recently which tighten the approval, coordination, and control of ADP resources. We were told also that a user group representing the medical centers has been established, and that five separate
committees -- each concerned with a specific area of medical center automation -- has been organized within this group.

These are important steps in the right direction. However, it is too soon to assess the contribution they will make toward helping to improve patient care in the medical centers.

I thank you, Mr. Chairman, for the opportunity to testify on this matter, and will be glad to answer any questions you or the other members of the Subcommittee may have.