BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

Better Patient Management Practices Could Reduce Length Of Stay In VA Hospitals

In fiscal year 1984, the Veterans Administration (VA) spent over \$8 billion to provide health care to millions of veterans. This amount could rise sharply in the next two decades as millions more veterans become eligible for free VA health services. VA estimates that if it were to serve all eligible veterans requesting care by the year 2000, it would need an additional \$5.9 billion to \$24.5 billion in construction funds alone.

In conjunction with a consultant team of physicians and nurses, GAO analyzed medical files at seven VA medical centers throughout the country and found that 43 percent of days that medical and surgical patients spent in VA hospitals in fiscal year 1982 could have been avoided. In addition, the GAO Chief Medical Advisor's evaluation of patients at six of these facilities in fiscal year 1984 substantiated the consultant's findings.

GAO's review focused on opportunities to reduce lengths of stay through more efficient patient care practices. By reducing lengths of stay in its hospitals, VA could free beds to serve additional veterans. If the expected increase in demand for VA medical care does occur, VA would be in a better position to meet more of the demand with its existing supply of acute care beds.

This report contains recommendations for establishing more efficient patient management practices as a key step in achieving reduced length of stay.



127603

CENERAL ACCOUNTING

GAO/HRD-85-52 AUGUST 8, 1985 Request for copies of GAO reports should be sent to:

U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20877

Telephone (202) 275-6241

The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".



COMPTROLLER GENERAL OF THE UNITED STATES

WASHINGTON D.C. 20548

B-218682

To the President of the Senate and the Speaker of the House of Representatives

This report discusses the opportunities for the Veterans Administration (VA) to reduce the time patients are staying in its hospitals. Shorter lengths of hospital stays will enable VA to use existing beds to meet more of the expected increase in demand from aging veterans. We made this review to determine whether VA was effectively managing its medical and surgical patients.

We are sending copies of this report to the Director, Office of Management and Budget; the Administrator of Veterans Affairs; and other interested parties.

Comptroller General of the United States

		
	•	

DIGEST

In fiscal year 1984, the Veterans Administration (VA) spent over \$8 billion on health care. This amount could rise sharply in the next two decades as millions more veterans, particularly those age 65 and older, become eligible for free VA health services. Nearly two out of every three elderly males in the nation in the year 2000 will be eligible for these services, under current rules. VA estimates that if it were to serve all eligible veterans who request care, it would need an additional \$5.9 billion to \$24.5 billion in construction funds alone.

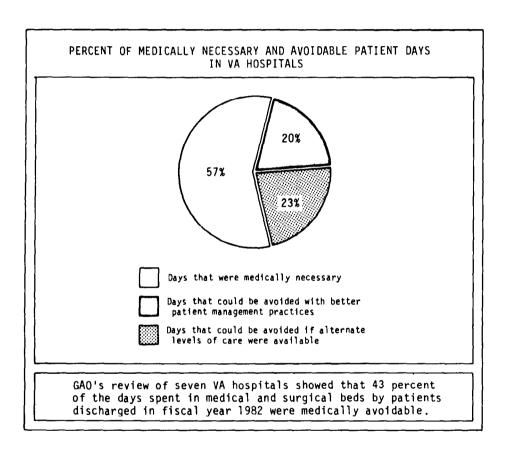
GAO visited 15 VA hospitals to determine if they could reduce the length of stay for medical and surgical patients by caring for them more efficiently. If VA can do so, it can meet a greater portion of the expected increase in demand for care with its existing resources.

GAO found that patient stays in VA hospitals could be reduced substantially. Establishing more efficient patient management practices is a key step in achieving these reductions. By managing its caseload more efficiently, VA would free hospital beds to serve additional patients. As a result, VA could meet more of the expected patient demand with existing resources. If VA does not become more efficient by reducing its lengths of patients' stays, it will either have to expand its capacity to a greater extent than now projected or turn away many of the veterans it expects to be seeking care.

PATIENTS' HOSPITAL STAYS COULD BE AVOIDED OR SHORTENED

GAO performed two different reviews of patients at VA hospitals. In one review at seven hospitals, GAO's consultant team of physicians and nurses from the Washington State Professional Standards Review Organization reviewed 350 randomly selected medical files of patients who had been discharged from these hospitals during fiscal year 1982.

Based on the consultant's review, GAO estimates that nearly 43 percent of the total days spent by medical and surgical patients at these seven hospitals in fiscal year 1982 were medically avoidable. About 20 percent of the total days were attributable to the absence of efficient management practices at the hospitals, while 23 percent were attributable to the unavailability of less costly levels of care. The VA service chiefs in the hospitals agreed with 86 percent of the avoidable days identified by the consultant. (See pp. 8 to 10.)



In a second review, GAO's Chief Medical Advisor visited six of the seven VA hospitals during fiscal year 1984 to evaluate the medical conditions of patients in medical and surgical beds. He evaluated nearly 800 patients, representing about 44 percent of the total medical and surgical patients in the hospitals at the time of his visits, and concluded that about 31 percent

of these patients did not belong in medical and surgical beds. VA physicians who were treating these patients agreed with the determination for 96 percent of the patients. They pointed out, however, that less costly levels of care for these patients were often not available. (See pp. 10 and 11.)

The need for developing less costly levels of care is a problem requiring additional analysis and was not addressed in this report. This report focuses on needed improvements in VA's patient management practices.

EFFICIENT PATIENT MANAGEMENT PRACTICES SHOULD BE ADOPTED

GAO's analyses showed that hospital stays for many medical and surgical patients could be reduced if hospital managers would adopt more efficient patient management practices that are recognized and used throughout the medical community. VA's central office has issued policy guidelines which recommend using many of these practices. However, managers at the hospitals GAO visited have not fully implemented the policies and therefore keep patients hospitalized longer than necessary.

Practices such as the following would contribute to more efficient patient management:

- --Certain diagnostic tests, such as blood tests and chest X-rays, should be done before admission rather than afterward.
- --Scheduling elective surgeries before patients are admitted, avoiding admissions just before weekends, and keeping surgery delays to a minimum would help to keep the time between admission and surgery as short as safely possible.
- --Times for conducting and providing the results of inpatient diagnostic procedures, tests, and consultations should be minimized.
- --Early planning for discharge should occur so that the special needs of patients can be addressed and necessary arrangements can be made without delaying the patients' releases.

Other studies done by GAO, VA's Inspector General, and the National Academy of Sciences of numerous hospitals in the VA system discussed inefficiencies similar to those identified by GAO. This leads GAO to believe that the matters discussed in this report go beyond the hospitals that GAO visited in its review. (See pp. 16 to 24.)

VA'S CENTRAL OFFICE CAN TAKE STEPS TO IMPROVE ACCOUNTABILITY FOR RESULTS

The VA central office should establish more specific expectations of its hospital managers, help hospital managers identify inefficiencies, and improve the processes for evaluating efficiency at the hospital and central office levels. In this way, the central office could hold hospital managers more accountable for adopting efficient patient management practices and minimizing patients' lengths of stay.

More specific expectations

VA's central office has not established performance expectations in two areas--surgery scheduling and times for conducting and providing the results of diagnostic tests and consultations. Because GAO found excessive lengths of stay attributable to these practices, it believes that specific expectations in these areas are needed. The American Hospital Association has developed guidelines for surgery scheduling and turnaround times for test results. These guidelines call for conducting elective surgery within 24 hours after admission and returning the results of consultations within 24 hours of when they are requested. Such guidelines provide a clear statement of expectations that, if achieved, should reduce lengths of stay at VA hospitals. (See pp. 20 to 22.)

More specific information on length of stay

Although VA maintains a comprehensive data base on its patients, managers both at headquarters and at hospitals have limited information to help them identify potential length of stay problems. Current reports give only an overall

indication of a hospital's performance on length of stay. More specific reports, such as a comparative analysis of length of stay at each hospital by diagnosis or by physician, could help VA managers to better focus on the strengths and weaknesses of a hospital's patient management system.

For example, at three VA hospitals, GAO analyzed patient case files on four common diagnoses and found that the two hospitals with shorter average lengths of stay for these diagnoses had adopted more efficient patient management practices than the hospital with the highest average lengths of stay. (See pp. 25 to 28.)

Improved methods for monitoring efficiency

VA has basically two methods to monitor whether efficient patient management practices are being used in its hospitals—the utilization review process performed at the hospital level and the Systematic External Review Program conducted by the central office. Neither method has been used effectively to address the need for better patient management practices to reduce length of stay.

Four of the 15 VA hospitals GAO visited during its review did not have a utilization review program. Programs at the other 11 hospitals needed improvement. At five VA hospitals, for example, GAO's consultant reviewed a sample of cases that had been reviewed earlier by utilization review personnel. The consultant found that 38 percent of the days patients spent in the hospital could have been avoided. By contrast, the utilization review personnel found that only 3 percent of the days were avoidable.

Problems with these programs include the following: (1) utilization review personnel sometimes had little or no medical background, (2) appropriate screening criteria often were not used to evaluate patients, and (3) the scope of the reviews was often too narrow to identify excessive lengths of stay. (See pp. 28 to 33.)

Tear Sheet

Also, the Systematic External Review Program often has not identified inefficient patient management practices or weaknesses in hospitals' utilization review. For example, at 10 of the hospitals where GAO found weaknesses in utilization review, VA's review teams did not always specifically identify key deficiencies with the utilization review process or make recommendations to improve it.

Similarly, the review teams identified relatively few length of stay problems and their causes at the hospitals where GAO found substantial numbers of unnecessary patient days. This occurred because the Systematic External Review Program seldom assessed patient case files to determine whether patient stays could be reduced. (See pp. 34 to 36.)

VA is implementing a new resource allocation system to distribute funds to its hospitals. Under the previous system, VA allocated funds to hospitals based on the previous year's budget plus an incremental increase for such items as cost-of-living raises and any new programs (e.g., the provision of additional medical services). According to VA, many perceived this system as relying on bed occupancy.

VA believes that its new allocation system will provide needed incentives for hospital managers to reduce lengths of stay and become more efficient. While it should contribute to reducing the length of stay in the long run, VA will not have the system fully in place for several years. Even with this system in place, however, hospital managers may not adopt all the patient management practices needed to minimize length of stay for various reasons. More specific policy guidelines, good management information, and effective monitoring should help ensure that hospital managers identify and take corrective actions to reduce lengths of stay. (See pp. 36 and 37.)

RECOMMENDATIONS

GAO recommends that VA develop expectations regarding patient management practices, generate better information to assess hospital performance, and improve hospital monitoring systems. These recommendations, if implemented, should enable VA to manage its patient

workload in ways that will minimize length of stay. (See pp. 38 to 40.)

AGENCY COMMENTS AND GAO'S EVALUATION

VA agreed with GAO's recommendations to develop policies regarding patient management practices and to generate better information to assess hospital performance. However, VA disagreed with several recommendations concerning the use of increased central office direction and oversight to improve the effectiveness of its hospital utilization review programs. GAO believes that its findings regarding weaknesses in the utilization review programs of the hospitals it visited emphasize the need for additional direction and monitoring of hospitals' activities. GAO also believes that increased central office monitoring of hospitals' utilization review programs should complement its establishment of the new resource allocation system as a way to provide hospitals' incentives to operate more efficiently. (See pp. 40 to 42.)

VA also stated that progress has already been made in reducing lengths of stay in VA hospitals since 1982 and that many of the improvements recommended by GAO are already being accomplished. While reductions in length of stay may have occurred since 1982, GAO found in 1984 that poor patient management practices were still widespread in the VA hospitals it visited. GAO believes that these practices should be improved substantially to minimize the length of stay for VA patients. (See pp. 14, 24, and 37.)

Tear Sheet

Contents

		Page
DIGEST		i
CHAPTER		
1	INTRODUCTION An aging population of veterans is expected	1
	to cause a sharp rise in future demand for VA's health services The average length of stay for patients in	2
	VA hospitals has declined during the past decade Objectives, scope, and methodology	5 6
2	PATIENTS' STAYS IN ACUTE CARE BEDS INCLUDE	
_	MANY AVOIDABLE DAYS Our consultant's review of patient records	8
	showed many avoidable days in acute care beds Our Chief Medical Advisor's review of	8
	hospital wards showed many patients did not need to be in acute care beds Using efficient patient management practices	10
	and providing alternate levels of care can shorten or eliminate patient stays	12
	Agency comments and our evaluation	14
3	VA NEEDS TO IMPROVE ITS PATIENT MANAGEMENT PRACTICES	16
		17
	Hospital admissions Preadmission testing	18
		20
	Surgery scheduling	
	Diagnostic and treatment practices	21
	Discharge management	22
	Agency comments and our evaluation	24
4	VA CAN REDUCE LENGTH OF STAY BY MAKING BETTER USE OF ITS MANAGEMENT INFORMATION AND MONITOR-	
	ING SYSTEMS	25
	VA needs to develop better management in-	23
	formation to identify potential length of	
	stay problems VA's systems for monitoring length of stay	25
	have not been effective	28
	Utilization review programs were not	
	effective in identifying avoidable	20
	days of care	29
	Utilization review programs were	20
	missing key elements	30

		Page
CHAPTER		
	Central office has not provided spe- cific guidance to hospitals on the key elements of a UR program The Systematic External Review Program has not been effective in identifying length of stay problems or UR	34
	program deficiencies	34
	Recent changes in VA's system for allocat- ing funds may encourage greater efficiency Agency comments and our evaluation	36 37
5	CONCLUSIONS, RECOMMENDATIONS, AND AGENCY COMMENTS Recommendations to the Administrator of	38
	Veterans Affairs Agency comments and our evaluation	38 40
APPENDIX		
I	Major kinds of VA health care	43
II	Objectives, scope, and methodology	46
III	Comparison of fiscal years 1982 and 1983 average length of stay for patients ages 50 to 64 with the medical or surgical diagnosis specified	55
IV	Comparison of fiscal years 1982 and 1983 surgical average length of stay and 1-day surgical stays in VA hospitals	62
v	Comparison of fiscal years 1982 and 1983 medical average length of stay and 1-day medical stays in VA hospitals	69
VI	Letter from the Administrator of Veterans Affairs	76
	ILLUSTRATIONS	
	Major kinds of care in the VA system	1
	Projection of growth in number of veterans 65 and older	3
	Projected need for beds in VA's health care system	4

		Page
	Trends in length of stay, patients treated, and medical and surgical beds at VA hospitals	6
	Comparison of medically avoidable days at VA hospitals GAO reviewed	9
	VA patients treated at higher levels of care than necessary	11
	Percentage of medically avoidable days GAO attributed to lack of alternate levels of care and inefficient patient management practices	12
	Comparison of acute care expenses with other levels of care	13
	Types of problems with patient management practices	17
	Relationship between length of stay data and efficient patient management practices	27
	Comparison of medically avoidable days iden- tified by GAO and by utilization review	29
	American Hospital Association's four key elements of a utilization review program	31
	ABBREVIATIONS	
СВО	Congressional Budget Office	
DRG	diagnosis-related group	
GAO	General Accounting Office	
ISD	Intensity of Service, Severity of Illness, and Discharge Screening	
MEDIPP	Medical District Initiated Program Planning	
SERP	Systematic External Review Program	
UR	utilization review	
VA	Veterans Administration	

CHAPTER 1

INTRODUCTION

The Congress has directed the Veterans Administration (VA) to provide health care to eligible veterans in an efficient and effective manner. To carry out this responsibility, VA operates the nation's largest health care system. The system includes acute medical, surgical, and psychiatric care for both inpatients and outpatients; intermediate hospital, nursing home, and domiciliary care; and a range of special programs and professional services. (App. I describes the types of care provided by VA.)

In fiscal year 1984, the system included 172 hospitals, 105 nursing home units, 16 domiciliaries, and 226 outpatient clinics. VA also contracts for the care of eligible veterans with non-VA physicians, hospitals, community nursing homes, and state veterans homes.

CHART 1

VA--THE NATION'S LARGEST HEALTH CARE SYSTEM MAJOR KINDS OF CARE--FISCAL YEAR 1984

Hospital Care: VA's 172 hospitals operated an average

of 79,222 hospital beds--39,241 medical beds (including 10,682 intermediate), 16,292 surgical beds, and 23,689 psychiatric beds. Patients treated totaled 1,290,046, with an average daily census

of 63,094.

Ambulatory Care: Veterans made about 16.1 million visits

to VA's 226 outpatient clinics.

Nursing Home Care: VA's 105 nursing homes operated an

average of 9,701 beds, treated 17,187 veterans, and had an average daily

census of 9,060. Further, VA contracted with community nursing homes and treated

an additional 35,550 veterans.

Domiciliary Care: A total of 13,053 veterans were treated

in VA's 16 domiciliaries. Average daily

census was 6,236.

¹Most of VA's medical facilities are organized into medical centers. VA's system included 160 such centers in fiscal year 1984. A medical center may consist of one or more hospitals, one or more outpatient clinics, a nursing home, and a domiciliary. Five outpatient clinics and one domiciliary are independent of any medical center.

To provide this care, VA spent \$8.3 billion in fiscal year 1984. Sixty-one percent of this amount--or \$5.1 billion--was for hospital care. Nearly 190,000 people (full-time equivalent employees) were employed by VA's Department of Medicine and Surgery in that year.

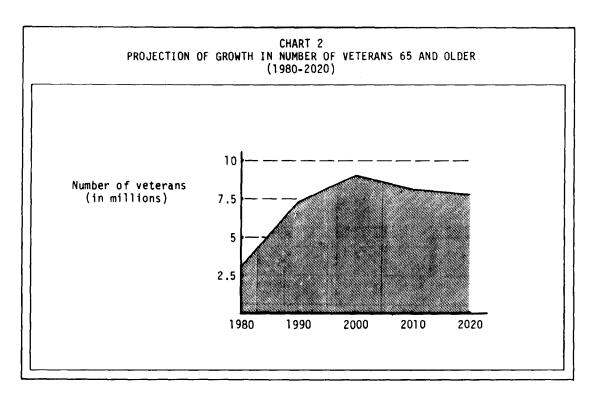
The Department of Medicine and Surgery manages VA's health care system, including its programs for medical research and education. Under the department's decentralized management philosophy, most responsibilities for managing VA's health care system have been delegated to the medical centers. Each medical center director is responsible for the proper and efficient management of the medical center, including control over the use of funds and staff. Each has authority to organize and operate the medical center and to change internal procedures or workflows.

The 172 hospitals are grouped into 28 medical districts, which in turn are incorporated into seven regions. Districts have assumed major planning responsibilities, but they are not in the line of authority between VA's central office and the medical directors. Directors of the seven regions, on the other hand, exercise direct-line supervision over directors of all field facilities. They are responsible for monitoring the use of funds and staff and adjusting workloads and resources within their regions. They are also responsible for evaluating the performance of medical center directors.

AN AGING POPULATION OF VETERANS IS EXPECTED TO CAUSE A SHARP RISE IN FUTURE DEMAND FOR VA'S HEALTH SERVICES

The number of veterans 65 or older--all of whom are legally eligible for free VA health care--is growing rapidly. VA reported that in 1980 there were 3 million veterans 65 and over. VA estimates that by 1990, there will be about 7.2 million veterans in this age group, and that by 2000, this number will peak at about 9 million veterans. VA estimates that under current eligibility rules, nearly two out of every three elderly males in the nation in the year 2000 will be eligible for free VA medical care if they elect to use it and if space is available.

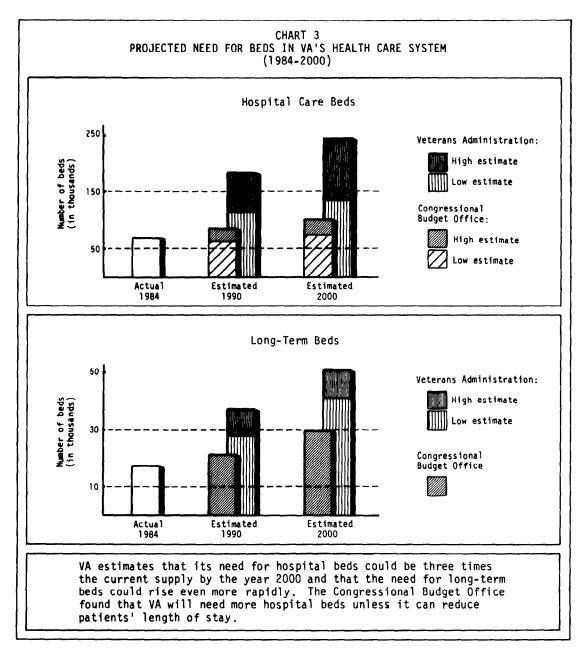
VA provides free care to eligible veterans at its medical centers on a space-available basis. Eligible veterans are admitted on a priority basis: first, the service-disabled who require treatment of their service-connected conditions; next,



the service-disabled who request care for non-service-connected conditions; and finally, certain categories of non-service-connected veterans, such as those age 65 or older or those who are unable to defray the costs of their care. Although medical care was originally limited to veterans with service-connected disabilities, nearly 70 percent of the patients discharged from VA hospitals in fiscal year 1983 had no service-connected disabilities.

Two recent studies examined VA's future needs. One of them, Veterans Administration Health Care: Planning for Future Years, was published by the Congressional Budget Office (CBO) in April 1984. The second, Caring for the Older Veteran, was issued by VA in July 1984. The two studies differ considerably in the assumptions they make about the average length of stay, and they differ in their estimates of VA's needs.

The CBO study estimates that if the average length of stay for VA patients remains fairly constant, VA will need 18 percent more hospital beds by 1990 and 36 percent more by 2000. In this study, CBO did not estimate the cost to construct these beds. However, the study estimated that if VA aggressively pursued policies to reduce lengths of stay, current hospital bed levels



would be sufficient for veterans' needs in 2000. The CBO study projected a sizable increase in the need for nursing home beds. It estimated that if current policies continued, the demand for nursing home beds would increase about 40 percent by 1990 and more than 100 percent by 2000.

The VA study indicated that future bed needs would be higher than the estimates made in the CBO study. Estimates for increases in hospital beds ranged from 45 to 136 percent by 1990 and 68 to 208 percent by 2000, depending on the kinds of assumptions made.

VA estimated a need for increases in the number of long-term (nursing home and domiciliary) beds from 50 to 106 percent by 1990 and from 128 to 189 percent by 2000. VA's cost estimates to build these hospital and long-term care beds by the year 2000 ranged from \$5.9 billion to \$24.5 billion, depending on the number of new beds constructed.

The VA study pointed out that most veterans 65 and over have health coverage under Medicare. The report also pointed out, however, that the trend in Medicare has been toward increasing out-of-pocket costs and restricting benefits. The report concluded that as these costs and restrictions become more burdensome, the option of free VA care may become more attractive.

The substantial differences between the VA and CBO estimates occur largely because VA believes that veterans will request its services at a much higher rate in the future than is now the case. We did not attempt to validate either study's projections or to make estimates of our own. The issue for this report was not which estimate of expected demand is more accurate. Our focus was whether VA can do more to shorten patients' length of stay so that it can use its facilities more effectively whatever the extent of the demand might be.

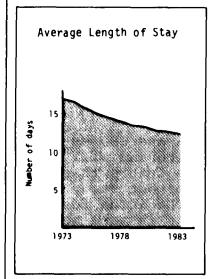
THE AVERAGE LENGTH OF STAY FOR PATIENTS IN VA HOSPITALS HAS DECLINED DURING THE PAST DECADE

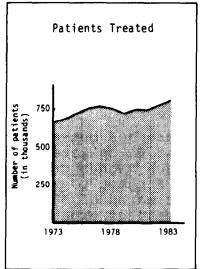
VA has taken steps during the past 10 years to reduce the length of stay by encouraging more efficient use of hospital resources. For example, it has encouraged screening and testing certain kinds of patients before admitting them rather than afterwards, conducting surgery for minor procedures on an outpatient rather than an inpatient basis, and providing extended home health care for discharged patients. Such changes have helped VA to treat more patients in fewer beds during the past decade.

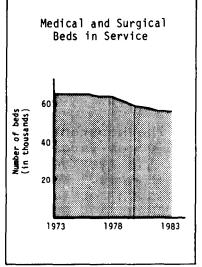
Overall, the average length of stay of VA patients has steadily declined during this period. As the first graph in the accompanying figure shows, the average length of stay for patients staying fewer than 99 days² was 12.6 days in fiscal year 1983--nearly a 5-day decrease from the 1973 level of 17.2 days. This drop in length of stay helped VA serve 21 percent more patients in 14 percent fewer medical and surgical beds.

The average length of stay was computed using VA's data for the internal medicine, intermediate medicine, neurology, and surgery bed sections. In addition, we excluded those patients whose stays exceeded 99 days so that average length of stay was not distorted by a relatively few very long stays.









The average length of stay in VA hospitals dropped 27 percent in fiscal years 1973-1983. This drop helped VA serve about 21 percent more medical and surgical patients even though the number of beds dropped 14 percent.

OBJECTIVES, SCOPE, AND METHODOLOGY

We reviewed VA's management of its patients' lengths of stay to determine if opportunities existed for VA to further reduce the length of stay for medical and surgical patients. If VA can reduce patients' lengths of stay and still provide quality care, it can increase its bed turnover rates and meet more of the expected increase in demand within its existing capacity.

We visited 15 VA medical centers between July 1983 and August 1984. We selected medical centers that represented a cross-section of the country. Appendix II contains a list of the medical centers and a detailed explanation of our work steps. At each hospital we interviewed such personnel as physicians, nurses, social workers, and others responsible for providing medical care to veterans. We also reviewed records and regulations concerning the medical centers' role in providing health care.

We discussed a series of patient management practices with hospital personnel to determine if these practices were being

used in the VA health care system. These practices were identified from numerous health care publications and interviews with health care professionals.

Using medical experts, we took several steps to identify opportunities to reduce lengths of stay. We hired a medical consultant -- the Washington State Professional Standards Review Organization--to review a random sample of patient records at seven of the medical centers. As a second step, our Chief Medical Advisor reviewed patients in selected medical and surgical wards at six of the seven medical centers visited by our consultant to determine if alternate ways of providing care for them were more appropriate. At three other medical centers, our Chief Medical Advisor reviewed selected patient records to determine if differences in professional and management practices existed between VA hospitals with shorter and longer lengths of Our consultant and Chief Medical Advisor then discussed their findings with the hospitals' service chiefs or their representatives to obtain agreement or disagreement on the cases. At the remaining five medical centers, we focused our discussions with hospital personnel on practices and procedures that affect the patients' length of stay.

We talked with representatives of many professional organizations about patient management programs. We discussed elements of an effective utilization review program with representatives of the American Hospital Association, the Commission on Professional and Hospital Activities, and the National Association of Quality Assurance Professionals. We discussed the basic elements of an effective surgery scheduling program with representatives of the Commission on Professional and Hospital Activities, the Association of Operating Room Nurses, and the Hospital Association of New York State.

At VA's central office, we reviewed records and interviewed personnel regarding policies and management practices that affect patient lengths of stay. We discussed the management information system, the Systematic External Review Program, and other factors affecting patients' lengths of stay at the VA hospitals.

Our review was performed in accordance with generally accepted governmental auditing standards.

CHAPTER 2

PATIENTS' STAYS IN ACUTE CARE BEDS

INCLUDE MANY AVOIDABLE DAYS

At the VA medical centers we visited with our medical consultant or our Chief Medical Advisor, we found that many patients either should not have been admitted to acute care beds or stayed too long in them. We found the following:

- --Nearly 43 percent of the total days spent in medical and surgical beds by patients discharged in fiscal year 1982 were medically avoidable. This finding was based on our medical consultant's review of a random sample of patients at seven hospitals. VA chiefs of services agreed that 86 percent of these days were not medically necessary.
- --Nearly 31 percent of another set of patients we reviewed in fiscal year 1984 did not need to be in an acute care bed, given their medical conditions at the time we conducted our review. This finding was based on our Chief Medical Advisor's review of patients in selected wards at six hospitals. VA physicians agreed that 96 percent of these patients did not need acute medical care.

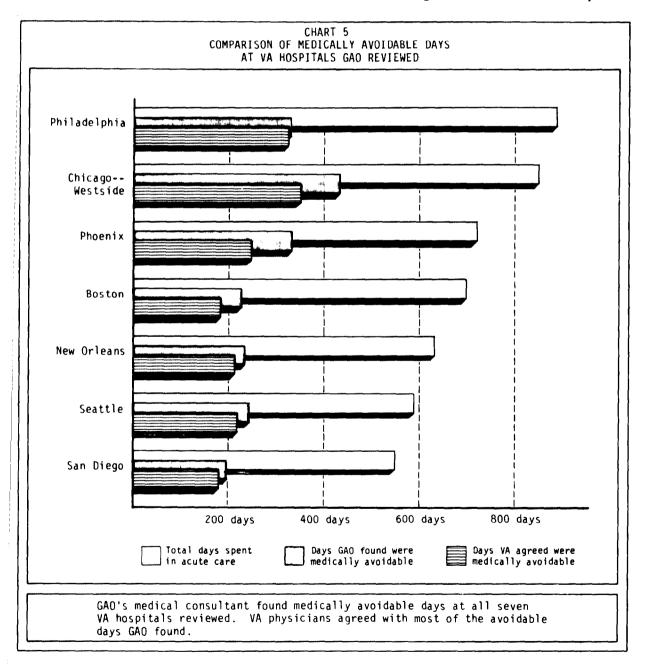
OUR CONSULTANT'S REVIEW OF PATIENT RECORDS SHOWED MANY AVOIDABLE DAYS IN ACUTE CARE BEDS

We took several steps to determine whether patients at VA medical centers were spending days that were not medically necessary in acute care settings. One of these steps was to select a sample of patient records at 7 of the 15 VA hospitals we visited. Using VA's Patient Treatment File containing fiscal year 1982 data, we randomly selected 50 records for patients discharged during that year for review at each hospital.

To review the records, we contracted with the Washington State Professional Standards Review Organization (consultant). The consultant is an independent corporation formed in 1974 to review care provided under the Medicare and Medicaid programs. The consultant's physicians evaluated the appropriateness of the use of VA hospitals' acute care services. In reviewing these records, the consultant used the Intensity of Service, Severity of Illness, and Discharge Screening (ISD) criteria as well as taking into account the patients' medical needs and such non-medical conditions as socioeconomic factors (distance from hospital to home, for example). Appendix II contains a detailed explanation of the evaluation process.

The 350 records reviewed by the consultant represented 4,935 acute care bed-days. Of these days, the consultant found that nearly 41 percent, or 2,005, could have been avoided. At the seven hospitals, the percentage of avoidable days ranged from 32.5 to 51.1 percent. Chart 5 shows the results at each hospital. The responsible VA chiefs of services agreed with our consultant on 86 percent of those days (1,728).

Our sample was randomly selected from patients discharged during fiscal year 1982 and can be projected to the population of each hospital. Thus, for the seven hospitals we visited, we



estimate that if we had reviewed all 45,219 patients discharged during fiscal year 1982, we would find that nearly 43 percent, or 255,316 days, would be medically avoidable.

OUR CHIEF MEDICAL ADVISOR'S REVIEW OF HOSPITAL WARDS SHOWED MANY PATIENTS DID NOT NEED TO BE IN ACUTE CARE BEDS

Since our consultant was evaluating information in medical charts from fiscal year 1982, we visited medical and surgical wards in six of those seven hospitals with our Chief Medical Advisor and discussed the medical condition of each of the patients then in those wards. Our purpose was to develop an understanding of each hospital's current procedures for admitting, treating, and discharging patients as well as to determine if the past problems being discovered by the consultant still were present. Although these data are not projectable because the patients were not randomly selected, they represent a sizable portion of the hospitals' patients. In all, we evaluated 44 percent of the patient populations during this phase of our hospital visits.

Hospital officials helped us choose the medical and surgical wards we visited. They assured us that the patients in the wards, as well as the practices used, fairly represented the patients and practices throughout the hospital.

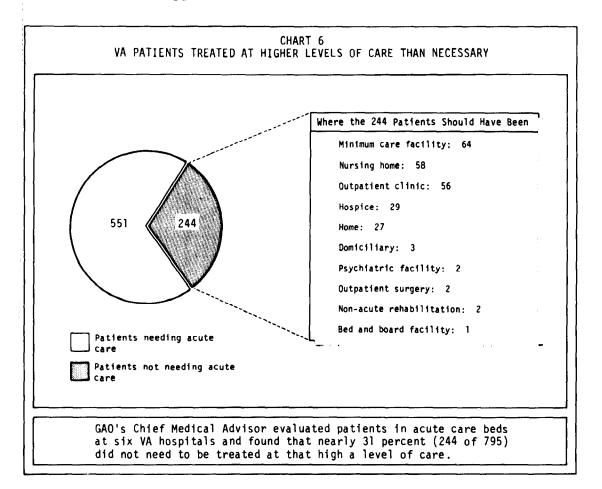
Our Chief Medical Advisor discussed the condition of each patient with the responsible VA physician and ward nurse. He determined whether the patient's condition on that day warranted occupying an acute care bed. If the patient's medical condition did not warrant using an acute care bed, he considered certain nonmedical conditions (socioeconomic factors) in determining the patient's appropriate level of care. These conditions include such factors as

- --how old the patient was;
- --whether the patient lived alone or with someone who was capable of providing assistance;
- --how far the patient lived from the treatment center (that is, was it a reasonable commuting distance); and

¹We are 95-percent confident that if we reviewed all 45,219 medical and surgical patients discharged during fiscal year 1982 at the seven hospitals, the number of avoidable days would be between 216,053 and 294,579 (255,316 ± 39,263).

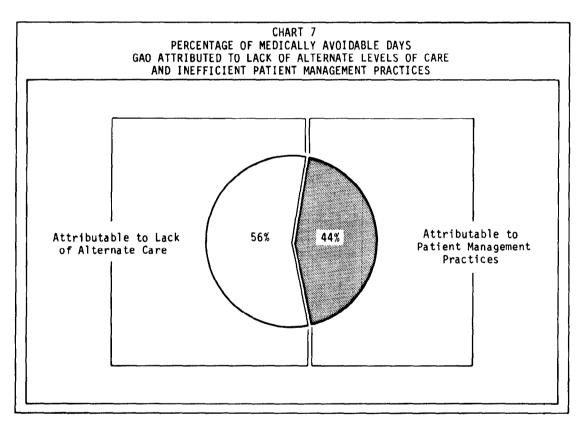
--whether the patient had another problem (either medical or nonmedical), such as alcoholism or smoking, not necessarily related to this condition but significantly affecting how the condition needed to be treated.

Our Chief Medical Advisor evaluated nearly 800 patients during our ward rounds at those six hospitals and found that 244, or about 31 percent, did not require acute care. At the six hospitals, the percentage of patients that did not require acute care ranged from 22 to 40 percent. His findings are based on the assumption that more appropriate levels of care were available. While this was not always the case, the VA physicians accompanying us agreed that this was a fair way to make our determinations. The VA physicians agreed that 96 percent (235) of the patients did not need to be in an acute care setting but also said that in many cases alternate levels of care, such as minimum care facilities and hospices, were not available. For instance, none of these hospitals had minimum care units for patients who do not require the full range of services available in an acute care bed. (App. I contains a description of the various types of care.)



USING EFFICIENT PATIENT MANAGEMENT PRACTICES AND PROVIDING ALTERNATE LEVELS OF CARE CAN SHORTEN OR ELIMINATE PATIENT STAYS

Our review showed that patient stays can be shortened or avoided by using more efficient patient management practices, such as preadmission testing, and providing less costly alternate levels of care. Our consultant categorized the 2,005 medically avoidable days it identified during the chart review at seven hospitals, according to the type of patient management practice involved. As chart 7 shows, about 44 percent of the medically avoidable days can be attributed to problems in patient management practices, and the remainder is attributable to the unavailability of alternate levels of care.

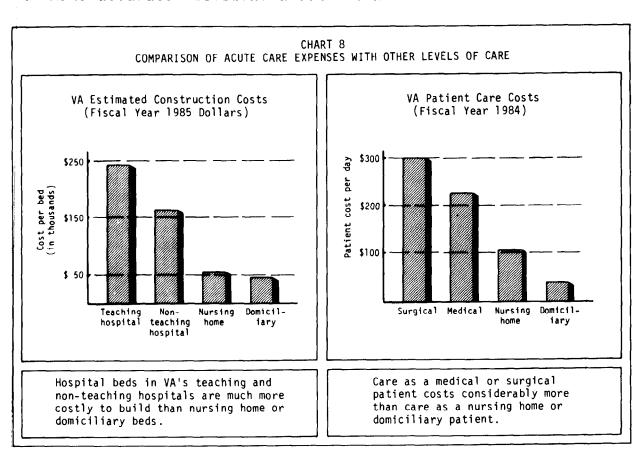


Problems with excessive lengths of stay are not limited to the hospitals where we performed detailed evaluations of patient case files. Numerous studies of the VA health care system by the VA Inspector General, the National Academy of Sciences, us, and others during the past decade have identified problems concerning medically avoidable days. Also, when we discussed with VA central office officials the VA medical centers we visited, they stated that the hospitals we visited were not unique in terms of kinds of patients or overall medical practices from other VA hospitals with medical and surgical sections.

By managing its caseload more efficiently, VA could free hospital beds to serve additional acutely ill patients. If the expected increase in demand for VA medical care occurs, VA would be in a better position to meet more of the demand with its existing supply of acute care beds. In its July 1984 report, Caring for the Older Veteran, VA pointed out that new hospital beds are estimated to cost \$245,000 per bed for affiliated (teaching) and \$163,000 per bed for nonaffiliated (nonteaching) hospitals. Therefore, each acute care bed that does not need to be built would be a significant cost avoidance for VA.

Reducing medically avoidable days also entails finding more appropriate levels of care for patients who do not need to be in medical and surgical beds. Nursing homes, outpatient clinics, and domiciliaries are examples of such alternatives. The use of such alternate levels of care rather than acute care beds also has a considerable effect on future expenditures. As chart 8 shows, it is less expensive to build alternate care beds and care for patients in them.

VA has recognized the need for long-term planning methods to make accurate decisions about the kinds of facilities it



needs. In recent years, VA has begun to use a different method to determine the appropriate mix of beds needed to best serve its patients. The two main long-term VA planning methods are the bed sizing model and the Medical District Initiated Program Planning (MEDIPP) process.

The bed sizing model is used to determine the number of beds for VA's new and replacement hospitals. Before 1977, VA's planning methods centered on its past experience on its acute care health care system. Consequently, estimates of hospital size or combinations of acute care and long-term (chronic) care beds reflected the system's past inefficiencies. The bed sizing model, in contrast, compares VA length of stay data and discharge rates with community hospital length of stay data to better define and forecast future demand for care.

MEDIPP combines all four management levels of the VA health care system--central office, regions, districts, and hospitals-into one strategic planning process. The process uses the data generated by the bed sizing model, adjusted to reflect local needs, in defining and forecasting future need. Each VA medical district then develops plans that determine the types of beds and facilities required to meet those future needs.

An analysis of these long-term planning methods is outside the scope of this report. Our work focused on possible improvements to VA's patient management practices, which can be accomplished in the shorter term.

AGENCY COMMENTS AND OUR EVALUATION

In a June 27, 1985, letter commenting on a draft of this report, the Administrator of Veterans Affairs stated that unless it can be demonstrated that alternative means of treatment existed to accommodate patients, it was not reasonable for us to conclude that patients were hospitalized inappropriately. VA pointed out that if such patients were not considered, we would have concluded that 20 percent of the patients were inappropriately hospitalized instead of 43 percent. VA said that it is likely that patients hospitalized because of the lack of appropriate alternative levels of care "would require similar resources to provide necessary care regardless of the formal label of the program in which they are placed." VA also used the same contention in questioning the methodology of our Chief Medical Advisor.

We disagree with VA's position on the significance of our finding that 23 percent of the patient days in our sample could have been avoided if alternative levels of care were available. We did not evaluate the cost of care provided to each of the

patients who, in our consultant's opinion, should have been placed in alternative levels of care because VA's accounting system does not provide detailed data on the costs to treat each of the patients in its facilities. Nevertheless, as shown in chart 8 on page 13, VA's own information showed that in fiscal year 1984 VA's average cost per patient-day to operate alternatives to acute beds was significantly less than its average daily cost to operate its medical and surgical beds. We believe VA should evaluate, on a hospital by hospital basis, whether (1) acute care beds should be converted to less costly long-term care units and (2) the hospital's staffing and support services should be adjusted accordingly.

With regard to our Chief Medical Advisor's evaluation, we considered whether a patient had a medical need to be in an acute medical or surgical bed. Because alternative levels of care may not have been available in many cases does not detract from the fact that 31 percent of the patients did not have a medical need to be in an acute care bed on that day. These data can be useful to VA in planning future bed mix strategies and should not be discounted. This evaluation also demonstrated that management problems previously identified by our consultant regarding patients treated in 1982 still were present in 1984.

VA stated that many of our recommended improvements (see ch. 5) were already being accomplished. However, our 1984 field work at VA hospitals indicated that VA had not implemented many of our recommendations for improved patient management. VA also suggested that its improvements have led to an 11 percent decrease in the length of stay in acute medicine and an 8 percent decrease in surgical length of stay from 1982 to VA further stated that since much progress had been made 1984. in reducing length of stay in acute care, it is possible that a large part of the remaining problem is caused by inadequate available alternatives to hospital care rather than poor management practices. VA officials told us that they do not know specifically what caused the decrease in average length of However, a portion of the reduction in the average length of stay could be attributable to the fact that additional alternatives to acute care beds were available in 1984. example, at the end of fiscal year 1984, VA operated about 575 more nursing home beds than it did at the end of fiscal year 1982.

CHAPTER 3

VA NEEDS TO IMPROVE ITS

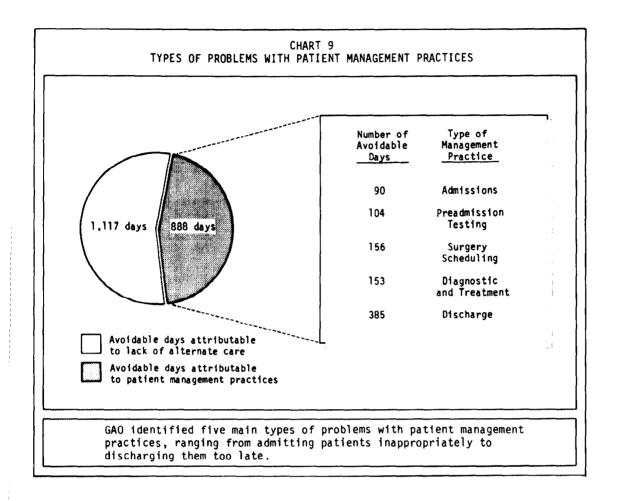
PATIENT MANAGEMENT PRACTICES

Veterans are staying too long in VA hospitals in part because hospitals are not using recognized patient management practices. To keep patients from staying longer than necessary, VA should implement

- --admission practices that ensure patients need hospital care rather than some other level of care, such as that provided in an outpatient clinic;
- --preadmission testing practices that encourage the completion of diagnostic tests before the patient is admitted;
- --surgery scheduling practices that minimize the time between admission and surgery;
- --diagnostic and treatment practices that minimize delays in performing procedures, receiving consultations with specialists such as cardiologists, and obtaining test results; and
- --discharge practices that ensure patients are released as soon as hospital care is no longer warranted and care in a more appropriate setting is available.

Based on our consultant's review of a random sample at seven hospitals, we estimate that about 20 percent (116,064) of the 595,554 days spent by patients discharged from medical and surgical beds during fiscal year 1982 were avoidable if these practices had been used. The avoidable days at individual hospitals ranged from 13 to 23 percent. Chart 9 shows the results of our sample for each patient management area.

¹We are 95-percent confident that if we reviewed the 45,219 medical and surgical patients discharged from the seven hospitals, the number of avoidable days attributable to inefficient use of recognized management practices would be between 90,362 and 141,766 (116,064 ± 25,702).



HOSPITAL ADMISSIONS

VA Circulars 10-84-144 and 10-84-26 encourage hospitals to control length of stay by ensuring that patients are not admitted if they do not need hospital care. Some patients may be more appropriately treated in other settings, such as nursing homes and outpatient clinics.

In our sample of 350 patients, we found 24 who could have been treated without being admitted to the hospital. Based on documentation in the medical charts, these patients did not have any nonmedical problems, such as living a long distance from the hospital or inadequate family support, which required hospitalization. In total, the 24 patients spent 90 avoidable days in the hospital. We found instances such as the following at all seven hospitals:

- --A 50-year-old man was admitted because he had blood in his urine. The patient, who lived within commuting distance, had several diagnostic tests performed the next day and was discharged 2 days after his admission. Our consultant determined that this patient could have been treated on an outpatient basis. The acting chief of surgery concurred. He said he could find no reason in the patient's record that justified his admission.
- --A 60-year-old woman was admitted for chest and back pain and for concern that, with a history of breast cancer, she might have a secondary malignancy. The patient, who lived with her husband and could commute to the hospital, was in no acute distress when admitted. She received a chest X-ray and bone scan the day she was admitted and returned home on a patient pass the next day. When she returned 3 days later, her symptoms had virtually disappeared. The patient also had a barium enema and other diagnostic tests during her 7-day stay. Our consultant determined that she could have been treated as an outpatient, and the chief of medicine concurred. He said the doctor was probably influenced by the patient's condition and by a study showing that malignancies reoccur 15 percent of the time.

VA doctors cited two reasons for admitting patients who should have received a different level of care. First, doctors at two hospitals said that patients admitted and discharged from the hospital on the same day were recorded as inpatients because it was the hospital's administrative practice to do so. Second, at one hospital patients with non-service-connected conditions were admitted to the hospital when nursing home placement would have been appropriate. This is contrary to VA policy, which does not permit hospitals to admit veterans with non-service-connected conditions for community nursing home placement.

Not all cases had readily identifiable explanations. Doctors at three hospitals said that five patients could have been treated in existing outpatient facilities but could not determine from the documentation why the patients were admitted.

PREADMISSION TESTING

VA Circular 10-84-10 states that length of stay can be reduced by completing diagnostic tests, such as blood tests and chest X-rays, before admitting a patient who is going to have elective surgery. We recognize that it is difficult to determine from the medical chart whether a prolonged preoperative stay was due to the lack of preadmission testing or poor surgery scheduling. We made our determination based on discussions with VA doctors.

In our sample of 350 patients, we found 22 whose diagnostic tests and procedures could have been performed before hospital-ization. These patients spent 104 avoidable days in the hospital. We found instances such as the following at all seven hospitals:

- --A 48-year-old man was admitted on Friday for an operation to be done the following Tuesday. The patient, who lived within commuting distance, was admitted on Friday for preoperative diagnostic tests. He was then let out on a pass for the weekend and returned on Sunday. Our consultant determined that 2 avoidable days were spent in the hospital. The acting chief of surgery concurred and said a preadmission testing program had since been initiated to address this problem. He noted that a past barrier was that physicians could not rely on the results being in the medical chart when needed.
- --A 50-year-old man was admitted for a hernia operation. The patient lived within commuting distance and was in otherwise good health. After admission, blood tests showed a high white blood cell count. As a result, surgery was postponed. Our consultant determined that 4 days of hospital care could have been avoided if preadmission testing had been done to identify and evaluate the patient's high white blood cell count. The acting chief of surgery concurred.

Doctors at five of the seven hospitals cited the inability to have preadmission diagnostic results in patients' charts on time as the main problem that contributed to the lack of preadmission testing.

Three of the seven VA hospitals had taken steps to improve their preadmission testing in 1984. For example, at one hospital that had done no preadmission testing before May 1984, testing began for general surgical patients in part because of excessive cancellations and delays in doing surgeries. Although it was too early to document the actual impact of preadmission testing when we visited the hospital, the hospital's utilization review coordinator later estimated that the cancellation rate in the operating room had gone from 26 to 17 percent in large part because of the preadmission testing effort. Steps have been taken to avoid such problems as test results not being available. All preadmission test results are sent to the admission area, where a clerk has been assigned to file the results, to ensure all the necessary paperwork is completed, and to call the patients before the scheduled admission to remind them of the admission date.

The need for VA to establish effective preadmission testing has been documented before. Our 1973 report on patients at six hospitals showed that one-third of them spent unnecessary days in the hospital because preadmission tests were not performed. In 1977, the National Academy of Sciences recommended that patients considered for admission to the surgical service require more careful screening before admission. The Academy stated that emphasis should be placed on performing presurgical workups on an ambulatory basis with a view to reducing preoperative stay to 1 or 2 days in most cases. In 1983, VA's Inspector General found that only one of four hospitals visited had an effective preadmission testing program.

SURGERY SCHEDULING

Another means of minimizing length of stay for elective surgical patients is to keep the time between admission and the scheduled operation as short as possible. The American Hospital Association states that only one preoperative day is necessary unless the physician documents the medical necessity of additional days. VA does not have such a guideline.

In our sample of 350 patients, we found 52 who had excessive lengths of stay due to delays in surgery scheduling. These patients spent a total of 156 avoidable days in the hospital. We found instances such as the following at all seven hospitals.

--A 33-year-old man was admitted for an ear operation. He also had sinus problems. The patient lived within commuting distance and was in no acute distress. Six days after being admitted, the patient had a sinus operation. Nine days later he had an ear operation. Our consultant determined that 6 of the days before the first surgery were avoidable--1 day because of lack of preadmission testing and 5 because of a delay in surgery. The chief of surgery concurred with our consultant's determination.

²Better Use of Outpatient Services and Nursing Care Bed Facilities Could Improve Health Care Delivery to Veterans (B-167656, Apr. 11, 1973).

³National Academy of Sciences National Research Council, Study of Health Care for American Veterans, June 7, 1977.

⁴VA Inspector General, <u>Audit of Ambulatory Surgery and Preadmission Surgical Screening</u>, March 29, 1983.

--A 44-year-old man was admitted to repair a hearing deficiency in his right ear. The patient lived within commuting distance of the hospital and was in no acute distress. The patient had his operation 5 days after his admission. He remained in the hospital for 6 more days. Our consultant determined that 5 days of the preoperative period could have been avoided with better surgery scheduling and that the patient could have been discharged 3 days earlier. The chief of surgery concurred.

VA doctors cited several problems causing surgery scheduling delays. The two main ones were the overbooking of surgery rooms (cited by doctors at five of the seven hospitals) and the unavailability of test results so that the patient could be evaluated for surgery (also cited at five hospitals). Surgeons and anesthesiologists need to check certain diagnostic tests, such as blood tests, to assure that a patient's condition is acceptable for surgery. Further, at six hospitals 12 surgical patients were admitted on a Thursday, Friday, or Saturday for an operation the following week. VA doctors at four of the hospitals said that patients were admitted on weekends to make sure that preoperative tests were performed.

Our 1973 report cited earlier found that about 11 percent of the patients studied could have had shorter preoperative lengths of stay if hospital admissions had been better coordinated with the availability of surgical facilities. The VA Inspector General's 1983 report found surgery scheduling delays in about 6 percent of the cases studied.

DIAGNOSTIC AND TREATMENT PRACTICES

Untimely diagnostic and treatment practices after admission to a hospital also affect length of stay. Delays can occur because of slow turnaround time for consultations, tests, or procedures. The American Hospital Association states that the attending physician should schedule necessary tests and procedures for completion as soon after admission as possible. The physician should document the reasons the tests and procedures could not be completed on an outpatient basis. The Association states that necessary consultations should be completed within 24 hours of the request except in unusual circumstances. VA has not issued any guidelines on diagnostic and treatment practices.

Fifteen of the 350 patients in our sample spent extra days in the hospital solely because of problems with diagnostic practices. These 15 patients spent 153 avoidable days in the hospital as a result. We found instances such as the following at six of the seven hospitals:

- --An 80-year-old man was admitted for treatment of increasing jaundice. On the patient's first day in the hospital, doctors called for tests to determine if his liver ducts were swollen. Tests the next day showed this to be the case, but the ducts were not drained for 9 more days. Our consultant determined that the patient could have been discharged 9 days before his actual discharge. The chief of medicine concurred.
- --A 74-year-old man was admitted because he had passed out for 3 hours and had a growth in his lung. To evaluate his problems, tests were conducted over the next 20 days. One consultation took 9 days because X-ray results could not be located. Our consultant determined that there was also a 7-day delay in completing the consultation. The chief of surgery concurred.

VA doctors cited several reasons for delays in diagnostic and treatment practices. Doctors at three hospitals indicated that poor coordination between medical, surgical, and radiology services contributed to delays in procedures and consultations. Doctors at four hospitals attributed consultation delays to slow mail service for delivering consultation requests. Other reasons given included a patient apparently not showing up for an appointment, an error in judgment by residents to order consultations, and difficulty in recording lab results in the medical chart.

The 1983 report by VA's Inspector General also found that delays in tests and consultations contributed to excessive lengths of stay. The audit found that about 7 percent of the 355 patients studied at four hospitals could have spent 149 fewer days in the hospital if delays in consultations and diagnostic tests had not occurred.

DISCHARGE MANAGEMENT

Discharge management is a process that should ensure patients are released when hospital care is no longer needed and when care in a more appropriate setting is available. VA Circular 10-84-141 states that discharging a patient depends primarily on two conditions: (1) the patient's medical condition no longer requires inpatient care and (2) all needs for outpatient treatment, nursing home care, or home care are arranged in advance. Discharge planning is an important part of this process. The VA circular states that effective discharge planning begins at the time of admission.

In our sample of 350 patients, 71 could have been discharged earlier. They spent 385 avoidable days in the hospital. We found instances such as the following at all seven hospitals:

- --A 67-year-old man was admitted for an elective operation on his eye. He lived with his wife within commuting distance. He was discharged 5 days after the operation, following an uncomplicated postoperative period. Our consultant found that 4 of these days could have been avoided if the physician had discharged the patient after his condition had stabilized. The chief and associate chief of surgery concurred. The associate chief said he could find no reason for keeping the patient in the hospital for 4 postoperative days.
- --An 86-year-old man was admitted for multiple medical problems, including congestive heart failure, changes in mental status, anemia, and urinary problems. On the day of admission, the VA doctor noted that this patient was a probable nursing home placement candidate. Two days later, the doctor dictated the discharge summary and notified social work service personnel. Twice during the next 3 weeks, the doctor noted that the patient was stable and awaiting nursing home placement. Our consultant determined that the patient could have been discharged to a nursing home 10 days earlier than he was. The chief of medicine concurred. A social work supervisor said there were delays in the discharge planning process because of delays in typing discharge summaries and other required paperwork.

VA managers cited several reasons for delays in discharge management. For discharge planning, one hospital's chief of social work service said that a system to start discharge planning at the time of admission was not in place. At three hospitals, social workers said that the hospital had run out of funds for community nursing home placement. At one hospital, there was a 10-day turnaround time for typing, and patients could not be discharged to a nursing home until the paperwork was complete. For patients who could have been sent home, VA doctors could not cite the reasons for the delay based on documentation in the patient's chart.

Reports by VA's Inspector General have also identified problems in discharge management. A 1983 audit of one medical center found that 26 percent of the inpatients could have been

treated in community nursing homes.⁵ According to the report, nursing home placement was not accomplished because discharge planning was ineffective. Similarly, a 1982 report on another medical center found that 31 percent of the patients could have been discharged to a nursing home, a domiciliary, or their home.⁶ According to the report, the patients remained in the hospital because management did not actively attempt to outplace patients for discharge.

In our view, VA can achieve further reductions in length of stay by holding hospital managers more accountable for results. The next chapter discusses how better use of information and improved monitoring would help assure that effective patient management practices are adopted.

AGENCY COMMENTS AND OUR EVALUATION

In his June 27 letter, the Administrator stated that the percentage of patients in our sample who experienced avoidable days of hospitalization due to patient management practices seemed rather small. We found 7 percent of the patients in the sample could have been treated without hospitalization, 6 percent could have had preadmission diagnostic tests, 4 percent spent extra days because of problems with diagnostic tests, and about 20 percent could have been discharged earlier. Taken together, we believe that these percentages raise concerns about VA's ability to efficiently manage its patient workload.

VA commented that legislation which requires hospitalization before admission to more appropriate levels of care contributes to inappropriate hospital stays in selected instances. While this is true, we did not find that legislative requirements contributed significantly to inappropriate admissions of veterans. In fact, we found this situation in only two cases out of 350 patients we sampled.

VA pointed out that preadmission testing or ambulatory treatment to avoid hospitalization may be limited because some patients live long distances from hospitals or have poor family situations. As discussed in chapter 2, our consultant and Chief Medical Advisor recognized this, and, when such cases were encountered, made appropriate allowances for these factors in calculating avoidable days of care.

⁵VA Inspector General, <u>Audit of VA Medical Center</u>, <u>Bedford</u>, <u>Massachusetts</u>, June 1, 1983.

⁶VA Inspector General, Audit of VA Medical Center, Marlin, Texas, December 3, 1982.

CHAPTER 4

VA CAN REDUCE LENGTH OF STAY BY

MAKING BETTER USE OF ITS MANAGEMENT

INFORMATION AND MONITORING SYSTEMS

VA can strengthen its use of management information and monitoring systems to hold hospital managers more accountable for reducing length of stay. VA collects data on length of stay but has not used the data to develop the types of reports that will help it to better focus on potential problem areas. Its internal and external systems for monitoring length of stay at individual hospitals are not effective in identifying avoidable days of care or improving patient management practices. Recent changes in VA's system for allocating resources may, in the long run, create incentives to reduce length of stay, but better use of its management information and monitoring systems is necessary to identify problems and to make improvements.

VA NEEDS TO DEVELOP BETTER MANAGEMENT INFORMATION TO IDENTIFY POTENTIAL LENGTH OF STAY PROBLEMS

Records of all patients discharged from VA medical centers are compiled on a computerized data base called the Patient Treatment File. VA produces a number of reports from this file. However, hospital and central office managers said the information in these reports is primarily aggregate length of stay data by bed section for individual hospitals. While such information may provide some overall indication of a hospital's performance, it does not provide the specific information needed to identify weaknesses in a hospital's patient management system, such as surgery scheduling problems. VA central office and hospital managers told us that having such information would aid in their monitoring efforts.

The Patient Treatment File can be used to analyze length of stay in many ways. One relatively simple analysis we made illustrates its potential usefulness. Using data from fiscal years 1982 and 1983, we focused on patients 50 to 64 years old who had one of four commonly occurring diagnoses: inguinal hernia, unspecified cataract, heart attack (myocardial infarction), or heart failure. For all four diagnoses, we found wide

¹See appendixes III to V for the length of stay data for the 138 VA medical centers that have both medical and surgical bed sections.

variations in length of stay among VA hospitals. For example, in fiscal year 1982, patients who had a hernia operation had lengths of stay that ranged from an average of about 3 days at one hospital to 24 days at another. The preoperative period for the same condition ranged from 1 day to 16 days. The following table shows variations in length of stay among the 15 VA hospitals we visited for patients with this condition.

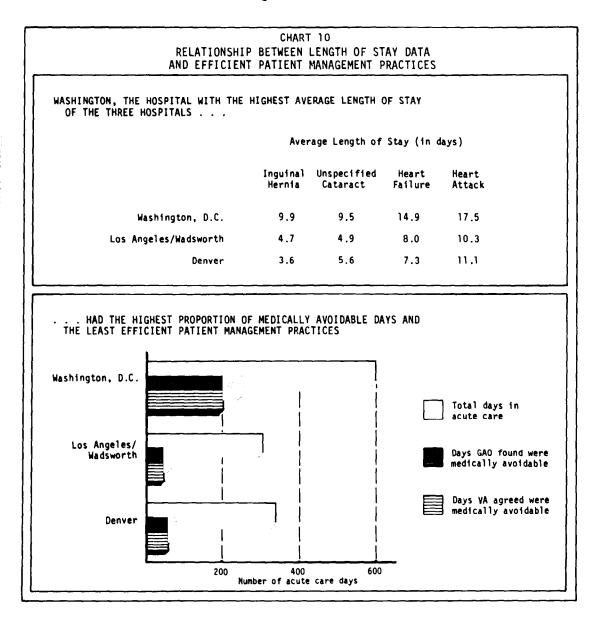
Length of Stay at VA Hospitals for Patients Ages 50-64 Who Had a Hernia Operation and Who Were Discharged in Fiscal Year 1982

<u> Hospital</u>	Number of patients	Average lengt Pre- operative	h of stay (in Post- operative	n days) Total
San Diego	42	1.1	2.0	3.1
Denver	17	1.4	2.2	3.6
San Antonio	42	1.8	2.3	4.1
L.A./Wadsworth	42	2.2	2.5	4.7
Seattle	8	1.6	3.2	4.8
Roseburg	23	2.7	3.3	6.0
Boise	9	2.6	4.4	7.0
Togus	14	3.5	3.5	7.0
Boston	7	3.5	4.2	7.7
Spokane	14	2.4	5.7	8.1
Phoenix	26	3.8	4.4	8.2
New Orleans	34	6.1	2.7	8.8
Philadelphia	26	4.2	5.7	9.9
Washington, D.C.	31	5.0	4.9	9.9
Chicago/Westside	26	6.5	3.7	10.2

To determine whether the variations reflected differences in management practices, we visited three VA hospitals—two (Los Angeles/Wadsworth and Denver) with relatively short lengths of stay for all four diagnoses, and one (Washington, D.C.) with long lengths of stay for all four. Our Chief Medical Advisor reviewed 12 randomly selected cases for patients discharged in 1982 for each of the four diagnoses, or a total of 48 cases at each hospital.²

²At Denver, we reviewed 46 cases because medical records were available for only 10 patients ages 50-64 who had a single diagnosis of unspecified cataract and a single operation.

Chart 10 shows our analysis of medically avoidable days for the cases we examined. The hospital with the longer average lengths of stay (Washington) had a much higher portion of medically avoidable days. At Washington, we estimate that for the four diagnoses we reviewed, about 45 percent of the hospital days were medically avoidable, compared to about 19 percent at the two others. VA doctors agreed with about 80 percent of the avoidable days identified by our Chief Medical Advisor.



The patient management practices at the Washington hospital were weaker than at the two others. For example, Washington had longer surgery scheduling delays in part because patients were not scheduled for their operation until after diagnostic tests were done in the hospital. In contrast, the Los Angeles/Wadsworth and Denver hospitals tentatively scheduled their patients before admission.

Our analysis demonstrates that VA can use the data it already has as a starting point to identify potential problems and begin developing solutions for them. In this case, reviews that focused on surgery scheduling would help reduce length of stay.

Our analysis of the four diagnoses showed that even hospitals with short lengths of stay could have achieved further reductions. For example, at Los Angeles/Wadsworth, a hospital that had a relatively low preoperative period for hernia patients, further reductions could have been achieved if preoperative workups had been performed on an outpatient basis. Doctors at the hospital admitted patients on a Thursday or Friday to conduct preoperative tests for hernia operations scheduled on Monday. After the tests were completed, the patients would then be given a pass for the weekend. Four of the 12 hernia patients in our sample were admitted on a Thursday or Friday for an operation on Monday. The chief of surgery said that preadmission testing does not work at the hospital because lab results are not filed in the medical chart and because a support system is not in place for preadmission testing.

VA'S SYSTEMS FOR MONITORING LENGTH OF STAY HAVE NOT BEEN EFFECTIVE

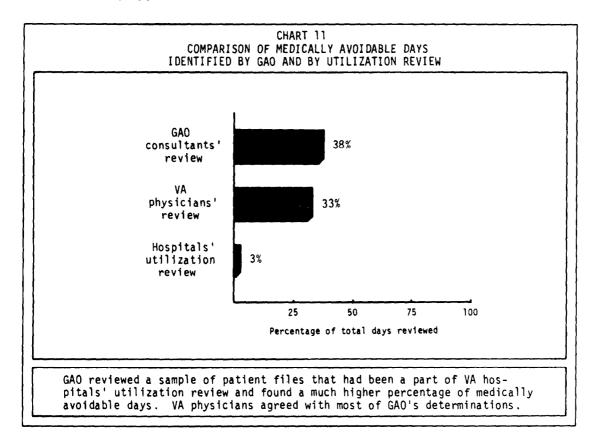
In 1974 VA established the Health Services Review Organization to identify ways to improve patient care and use resources more efficiently. Two of its important monitoring efforts are utilization review (UR) and the Systematic External Review Program (SERP). UR, which is designed to monitor patients' lengths of stay and the use of hospital resources, is conducted by individual hospitals. SERP, by contrast, is coordinated by VA's central office and conducted by a team of VA physicians and hospital managers from other VA locations.

When we compared the results of utilization reviews and SERP visits to the findings of our consultant at the seven hospitals examined, we found that neither of these monitoring programs has been effective in assuring that good patient management practices are in place or that length of stay problems are identified. None of the most recent SERP reports for these hospitals identified the extent of UR program weaknesses that we found.

Utilization review programs were not effective in identifying avoidable days of care

UR is a tool hospital managers should use to evaluate the appropriateness and efficiency of health care services provided. The Joint Commission on Accreditation of Hospitals, which reviews and accredits hospitals, requires them to demonstrate appropriate allocation of their resources through an effective UR program. VA regulations also require a periodic review of appropriateness of admissions, continued stay, and use of services.

At the seven hospitals we visited with our consultant, we found that none of the UR programs were effectively identifying patient management or length of stay problems. The UR programs at two hospitals had not identified any length of stay problems because they had not conducted reviews of the appropriateness of patients' admissions or their continued stays. Our consultant reviewed a total of 45 patient charts previously evaluated by UR personnel at the five hospitals that were conducting their own reviews. The consultant found that 269 days, or 38 percent of the total days of care, could have been avoided. The VA service chiefs agreed with 86 percent of our consultant's findings. UR personnel had identified only 3 percent of the days as avoidable in their reviews.



Utilization review programs were missing key elements

Although VA regulations (38 C.F.R. 17.509) identify the need for periodic review of the appropriateness of admissions, continued stay, and use of services, the regulations do not describe the type of review process or staff needed for an effective UR program. Further, the regulations do not require screening criteria or written policies and procedures on patient management practices.

The American Hospital Association has identified the key elements necessary for an effective UR program. These elements, explained in more detail in chart 12, include a written UR plan, qualified staff, written policies and procedures, and specific screening criteria. The American Hospital Association is consistent with the Joint Commission on Accreditation of Hospitals in requiring a written UR plan and written measurable screening criteria.

We evaluated the UR programs at all 15 VA hospitals we visited using the American Hospital Association elements as the standard. Four of the hospitals did not have an active UR program. Managers at these hospitals cited a variety of reasons, including the following:

- --Hospital construction and temporary bed closures, which they felt had kept the length of stay in existing beds low.
- -- The service chiefs' responsibility to assure their services were efficient and effective.
- --The new resource allocation system being implemented, which is designed to provide incentives to minimize avoidable days of care.
- --Other higher priorities in the hospital, which required available resources that would be needed to conduct a UR program.

The other 11 hospitals had active UR programs. However, each was missing one or more key elements identified by the American Hospital Association.

	CHART 12 AMERICAN HOSPITAL ASSOCIATION'S FOUR KEY ELEMENTS OF A UTILIZATION REVIEW PROGRAM
UTILIZATION REVIEW PLAN	The plan should include a description of the program's purpose and organization. The plan should also describe the concurrent review process and other types of reviews needed to meet program goals and requirements of outside organizations. Types of reviews include: Concurrent reviews performed at specified intervals throughout patients' hospital stays to determine if hospitalization is appropriate. Retrospective reviews performed after patients have been discharged to identify utilization or patient management problems, such as unnecessary delays between admission and surgery. Focused reviews performed either concurrently or retrospectively to concentrate on those areas with the greatest potential for problems. The Joint Commission on Accreditation of Hospitals requires concurrent reviews, retrospective monitoring, and focused reviews.
STAFFING	The program should have qualified staff to carry out the review process. Specifically, it should have:Personnel to analyze data and identify utilization patterns or trendsA coordinator (usually a nurse) to coordinate and perform the reviewsA designated physician reviewer to evaluate cases that the coordinator finds do not meet the screening criteria.
WRITTEN POLICIES AND PROCEDURES	Written policies and procedures provide the program with direction and consistency. The policies and procedures should include guidelines on specific patient management practices, such as preadmission testing and timely discharge planning.
SCREENING CRITERIA	Screening criteria are predetermined specific values against which the reviewers compare patients' conditions to evaluate the quality and appropriateness of medical care provided.

Utilization review plans were often incomplete

Although 12 of the 15 hospitals had a document setting forth the UR program's purpose and organization, only 4 had plans that both required the coordinator to conduct the various types of reviews (concurrent, retrospective, and focused) and described the step-by-step process. In practice, however, two of these four hospitals carried out their plans. In addition to these two hospitals, four hospitals' programs included concurrent reviews to evaluate the appropriateness of admission and continued stay, four included retrospective reviews to identify utilization problems, and five included focused reviews.

Programs lacked one or more types of qualified staff

None of the programs had all three types of personnel identified as necessary by the American Hospital Association: a data analyst, a coordinator with a medical background, and a designated physician reviewer.

None of the programs had a data analyst who developed information on trends or comparisons of length of stay by diagnosis between hospitals. When trying to identify potential problem areas, coordinators told us they generally relied on suggestions, results of other reviews, or available data, such as lists of patients who had been in the hospital for more than 30 days. For example, one coordinator said that although information on comparative lengths of stay would be helpful, she was able to obtain only limited information, such as aggregate length of stay by bed section or lists of patients who had been in the hospital for more than 30 days.

Ten of the 15 programs did not have coordinators with medical backgrounds. According to the American Hospital Association, clinical nursing expertise is important because it helps the coordinator apply the screening criteria and make decisions quickly and accurately. A coordinator with a medical background is also familiar with terminology and medical practice and has an understanding of the effects of drugs and treatment programs on the patients' conditions. In addition, six of the programs did not have designated physician reviewers to evaluate cases that did not meet the screening criteria.

Written policies and procedures were incomplete

All of the programs were lacking written policies and procedures on such patient management practices as timely turnaround of tests, procedures, and consultations. Further, none of the programs required the UR staff to evaluate whether hospital personnel were consistently following these patient management practices.

Many programs lacked specific screening criteria

Nine of the programs did not have specific screening criteria. The program needs such criteria so that the review process can be as objective as possible. The American Hospital Association identified criteria, such as the intensity of service and severity of illness criteria used by our consultant, as advantageous because they are more objective, easier to use, and require less coordinator time.

Examples at specific hospitals illustrate the problems that occur when UR programs have deficiencies

One program we reviewed had a complete UR plan, a UR coordinator with a medical background, and specific screening criteria similar to those used by our consultant, but it lacked a designated physician reviewer and specific patient management policies. The coordinator said that she had not identified any patients inappropriately admitted to the hospital. Further, the coordinator said even though some patients did not meet the screening criteria for continued stay, she did not always question whether the stay was inappropriate, in part because she did not feel that she should challenge the practices of the medical and surgical services. The coordinator said that if she identified a problem, she tried to resolve it with the doctor or nurse involved.

Another VA hospital we visited did not have a complete UR plan, appropriate staff, or written policies and procedures. The hospital had recently hired a UR coordinator. The coordinator said that she did not have a medical background. The coordinator told us that because she was not familiar with many of the medical terms and standard medical practices, she had difficulty reviewing medical cases. In addition, she said her reviews did not include under- or overutilization of ancillary services, such as laboratory tests and X-rays, and the effect on patients' lengths of stay.

Central office has not provided specific guidance to hospitals on the key elements of a UR program

While VA requires each hospital to have a UR program, the central office has not issued guidelines outlining the four key elements of a UR program. The director of the Medical Inspector and Evaluation Office stated that in the past, the central office has not felt it needed to provide hospital staff with much guidance on how to implement or operate a UR program. If hospital personnel requested guidance, they were referred to the UR standards published by the Joint Commission on Accreditation of Hospitals, according to the director.

VA's Medical Inspector and Evaluation Office is drafting a Health Services Review Organization Manual which will include policies for UR. The policies will be mandatory for all VA hospitals. The director said that the manual changes are, in part, a response to requests from hospital personnel for more UR guidance. The manual is still in draft form subject to revision, and VA officials could not predict the final content, but indicated that they expect to issue it during fiscal year While the manual changes are being finalized, VA has issued interim UR guidelines which are more specific than current regulations in defining the elements of a good UR process. However, central office officials stated that the guidelines will not be policy and hospital compliance will not be mandatory. Hence the degree to which VA's efforts will successfully address problems with the UR process is still uncertain.

The Systematic External Review Program has not been effective in identifying length of stay problems or UR program deficiencies

The purpose of the SERP is to evaluate the quality of care and the effectiveness of each hospital's internal monitoring system, including UR. As part of the SERP effort, a multidisciplinary peer review team made up of VA health care professionals (including physicians and hospital managers) visits hospitals to evaluate services and activities. During their visit the SERP team members interview staff and review such records as committee meeting minutes, the UR program plan, and a sample of medical records. The SERP methodology involves using a set of Standards, Criteria, Evaluative Algorithms and Measuring Instruments, which describe the tasks the team should perform and the criteria against which it should measure hospital performance. Although before 1982 the SERP teams visited each hospital once every 3 years, budget constraints have reduced the visits to about once every 4 to 5 years, according to the associate director for the Medical Inspector and Evaluation Office.

We reviewed the latest SERP reports for the 10 VA hospitals where our consultant or our Chief Medical Advisor conducted their reviews. Although our consultant or Chief Medical Advisor identified opportunities to reduce length of stay at all 10 hospitals through better patient management practices, the SERP reports often did not address this issue. SERP reports for the 10 hospitals cited potential length of stay problems, focusing primarily on slow turnaround times for tests and procedures and potential discharge delays. Our consultant or Chief Medical Advisor found that in addition to those areas, problems with inappropriate admissions, preadmission testing, or surgery scheduling occurred at all 10 hospitals. By contrast, only two SERP reports identified problems that could potentially result in inappropriate admissions, none identified the need for preadmission testing, and only one identified problems resulting in surgery delays.

SERP team leaders said that time constraints prevent them from writing more detailed reports. One SERP team leader said that reports are abbreviated versions of conferences with hospital managers and that managers are aware of the problems and their potential impact even if the reports are not explicit.

We believe that reports which more completely describe the problems the SERP team found would make hospital managers more accountable for resolving the problems because they are required to respond in writing to each deficiency cited. We believe accountability is lost if SERP officials do not document each deficiency in the report, even if SERP team members and hospital officials discussed them.

Currently, VA's central office does not require the SERP team to review a sample of medical charts specifically to identify any avoidable days of care or problems with patient management practices. According to the deputy associate director of the Medical Inspector and Evaluation Office, team members review charts to evaluate such things as the quality of documentation rather than length of stay. He said that because of time constraints, team members spend little time reviewing patients' lengths of stay.

SERP also did not identify the extent of problems with the UR programs that we found. Although certain aspects of the UR programs were discussed in the SERP reports, SERP did not identify key elements missing from the hospitals' UR programs. By contrast, each of the UR programs we reviewed was missing one or more of the key program elements. A SERP team leader told us that if general statements were made identifying problems with a hospital's overall internal monitoring system, the hospital

officials understood that the UR program, as part of the internal monitoring system, also had weaknesses. However, the less specific the SERP reports, the less accountable hospital directors are for correcting deficiencies in their UR programs.

The SERP reviews did not identify all UR program deficiencies because of the way the reviews were structured and carried out. First, SERP needs policies that outline the elements of a UR program, but as stated earlier, at the time of our review VA had not issued any policies on UR. Second, the Standards, Criteria, Evaluative Algorithms, and Measuring Instruments used by SERP teams also do not identify the key UR program elements. Finally, the approach used by SERP teams does not include screening a sample of cases reviewed by UR personnel to evaluate how effective the UR program is in identifying avoidable days of care. The SERP standards require the team only to review the UR plan, screening criteria, and committee meeting minutes to determine whether the program is performing properly. As our findings show, these steps alone do not ensure that the program is operating effectively.

RECENT CHANGES IN VA'S SYSTEM FOR ALLOCATING FUNDS MAY ENCOURAGE GREATER EFFICIENCY

VA has recently adopted a new system for allocating funds to hospitals. Under the previous system, VA allocated funds to hospitals based on the previous year's budget plus an incremental increase for such items as cost-of-living raises and any new programs. According to VA, many perceived this system as relying on bed occupancy. Under the new system, however, the basic objectives include moving hospitals toward shorter lengths of stay, more cost-efficient care, greater staff productivity, and greater reliance on alternatives to hospital care.

According to VA's Resource Allocation Evaluation Study, the new system allocates funds to hospitals on the basis of the kind of treatment given. The system places each patient discharged in 1 of 470 treatment categories, such as hypertension or chest pain. These categories are called diagnosis-related groups, or DRGs. Within limits, each DRG carries a standard reimbursement that is the same regardless of how long the patient stays in the hospital. If a patient has to stay in the hospital beyond the normal limit for a particular DRG, the hospital receives some extra compensation, but in theory not enough to cover acute care costs. Thus, this system provides an incentive for a hospital to shorten lengths of stay.

The effect of DRGs will not be known for several years. According to the Assistant Director for Resource Management, about 40 percent of a hospital's budget was based on DRGs in fiscal year 1985. The Staff Director for Health Resource Management told us that VA expects to phase in the system over a 5-year period. In addition, he said that VA plans to phase in DRGs for ambulatory care, nursing home, and intermediate care starting in fiscal year 1986.

AGENCY COMMENTS AND OUR EVALUATION

In his June 27 letter, the Administrator stated that SERP reports (1) are intended for VA officials who understand the terminology, and it is therefore unnecessary to be excessively detailed and (2) include all deficiencies that affect patient care or resource utilization.

We believe that SERP reports need to document all pertinent problems with a facility's patient management practices to better assure that everyone understands the nature of the problem and to serve as a basis for holding hospital managers accountable for improving problem areas. In addition, our findings contradicted VA's comment that SERP reports cite all deficiencies. As pointed out on page 35 of the report, the SERP reports did not include key weaknesses in hospital patient management practices that we found.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS,

AND AGENCY COMMENTS

Improved patient management practices can make VA hospitals considerably more efficient. Our review at seven VA hospitals showed that more widespread use of preadmission testing, better surgery scheduling and discharge management, and more timely diagnostic tests and consultations could have eliminated 20 percent of the days that medical and surgical patients spent in VA hospitals. Within the the last 8 years other studies undertaken by us, VA, and other organizations have confirmed the absence of these patient management practices at other VA hospitals. Taken together, these findings indicate that the problem is widespread throughout VA.

The rapidly rising population of veterans 65 and older is expected to make substantial additional demands on VA's health care system. By reducing hospital stays, VA would free hospital beds to serve additional patients. If VA does not become more efficient by reducing lengths of patients' stays, it will either have to expand its capacity to a greater extent than now projected or turn away many of the veterans it expects to be seeking care.

To provide incentives for hospitals to be more efficient, VA has begun implementing a new resource allocation system which, in effect, rewards its more efficient hospitals by allocating relatively larger proportions of the budget to them. The new system is designed to penalize inefficient hospitals by giving them proportionately less. However, the success of this system in bringing about greater efficiency will not be known for several years. Even with the system in place, hospital managers will need to adopt prudent patient management practices to minimize length of stay and improve efficiency.

To hold hospital managers more accountable for more efficient patient management practices and reductions in hospital stays, we believe that VA's central office should issue specific policies on patient management practices, use its management information system to identify potential problems, and improve its monitoring of hospital lengths of stay.

RECOMMENDATIONS TO THE ADMINISTRATOR OF VETERANS AFFAIRS

We recommend that the Administrator direct the Chief Medical Director to:

- --Revise current policies to place greater emphasis on reducing surgery delays and turnaround times for diagnostic consultations, tests, and procedures. In making these revisions, the Chief Medical Director should make the current policies and goals more specific, using such guidelines as those developed by the American Hospital Association.
- --Develop reports at the VA central office and at individual hospitals to identify length of stay problems and those responsible for solving them. These reports could include such analyses as (1) a comparison of length of stay by selected diagnosis categories at each VA hospital, (2) a comparison of length of stay for each physician's patients in a particular medical or surgical specialty, and (3) a list of patients who have been in the hospital for more than 30 days.
- --Require hospitals to use explicit patient screening criteria, such as those addressing intensity of care or severity of illness, to evaluate the appropriateness of the level of treatment.
- --Require hospitals to staff their utilization review function with qualified people, including reviewers who have a medical background.
- --Require hospitals to conduct all three types of review-concurrent, retrospective, and focused--as part of their
 utilization review program. Concurrent reviews should be
 conducted shortly after a patient's admission and periodically throughout the patient's stay. Retrospective
 reviews should be conducted after patients have been
 discharged so that the hospital can ensure whether such
 patient management practices as preadmission testing and
 discharge planning were carried out. Focused reviews
 should be conducted either concurrently or retrospectively.
- --Include criteria on the key elements of utilization review in the Standards, Criteria, Evaluative Algorithms, and Measuring Instruments. The Systematic External Review Program teams should use the criteria when evaluating each hospital's utilization review program.
- --Increase the scope of the Systematic External Review Program by including evaluations of a random sample of patient case files at each hospital. These evaluations would help measure the effectiveness of hospitals' efforts to minimize lengths of stay and would also help

measure the effectiveness of hospitals' utilization review programs. To identify potential length of stay problems, the external review team can use reports and data such as those described above.

AGENCY COMMENTS AND OUR EVALUATION

In his June 27 letter, the Administrator agreed with our recommendations on the need to (1) revise current policies to place greater emphasis on reducing surgery delays and turnaround times for diagnostic consultations, tests, and procedures, (2) develop reports to better identify length of stay problems, and (3) include criteria on the key elements of utilization review in the Standards, Criteria, Evaluative Algorithms, and Measuring Instruments.

While VA concurred with our recommendation to require hospitals to use explicit patient screening criteria as part of its utilization review process, it pointed out that there are numerous methodologies available for medical centers to use. VA advocates letting each facility choose its own methodology consistent with its particular situation. VA is also considering a national education program on UR management for all medical facilities during fiscal year 1986.

We recognize that numerous screening criteria exist. While hospitals may need some flexibility in choosing alternative criteria, we believe that VA's central office should identify several acceptable alternatives and require hospitals to choose from among them. We believe that the national education program would be a good opportunity for VA to talk about acceptable screening criteria alternatives.

VA concurred, with exception, with our recommendation pertaining to the staffing of the UR function. VA said that while it strongly supports and encourages medical facilities to assign to the UR function personnel with good clinical background, it depends on medical center officials to appoint qualified people to perform these tasks. In our opinion, the issue is not who does the hiring, but rather who is hired. As stated on page 32 of our report, 10 of the 15 hospital UR programs we evaluated did not have coordinators with medical backgrounds, and 6 of the programs did not have physician reviewers assigned to the UR. We believe that VA's central office needs to be specific as to the disciplines of people that will staff the UR function and what their qualifications should be in terms of medical background and clinical experience.

VA did not concur with our recommendation to require hospitals to use all three types of review as part of their UR programs. VA said in its comments that the Joint Commission on Accreditation of Hospitals requires one type of review—concurrent review—when indicated. Further, VA contends that each facility should decide when and to what degree these various reviews should be performed.

We believe that continuation of VA's approach to utilization review would not result in any significant change from its current practice. Officials of the Joint Commission told us that the Commission's standards require the use of all three types of reviews—concurrent, retrospective, and focused. We believe the fact that none of the hospitals we evaluated had adequate UR programs points out the need for VA to tighten its controls over its facilities. We believe that VA should require its hospitals to use all three reviews, recognizing that the degree they will be used at any given time will vary depending on problems identified.

VA did not concur with our recommendation to have SERP team members examine a random sample of patient case files for potential length of stay problems at each hospital as part of their normal visits. VA cited time constraints as the principal reason for disagreeing with this recommendation and stated that its SERP teams have placed increased emphasis on a more detailed review of UR plans. Based on our consultant's experiences in examining a sample of case files, we believe that a trained physician reviewer, accustomed to using appropriate screening criteria, could review 10 to 15 patient files, which have been prescreened by a nonphysician, in about 4 hours. This number of cases, if selected randomly for a given period, should give the reviewer a good feel for a hospital's patient management practices. Since the SERP team already examines medical files for reasons other than length of stay, we believe that time constraints are not a valid reason for choosing not to review medical files for potential length of stay problems. opinion, simply reviewing UR plans will not insure that hospitals are carrying out the plans, as evidenced by the fact that we found hospitals during our review that had not carried out their stated UR plans.

VA also expressed concern that we were suggesting that implementing our recommendations will further decrease projected VA future bed needs. VA said that its future projections have already assumed the effects of the improvements we were recommending. VA contended that in its report Caring For the Older Veteran, it assumed that the decline in VA's length of stay would bottom out by 1990, although we were told earlier by the VA Director of Program Analysis and Development that VA had assumed for its report that the trend had already bottomed out.

We have not taken issue with VA's future projections. Rather, we believe that VA needs to improve patient management practices at its hospitals to lower the lengths of stay upon which its future bed projections are based. If VA's length of stay is not reduced to that of community hospitals with similar types of patients, VA's projected bed needs will not be sufficient to meet its projected demand for services, if the demand materializes as VA thinks it will.

MAJOR KINDS OF VA HEALTH CARE

VA currently offers the following types of institutional methods of health care in its system.

Inpatient medical care within the VA health care system is rendered through hospitals, nursing homes, and domiciliaries. In VA hospitals, veterans with general medical ailments are treated in the medical bed sections; veterans requiring surgery are treated in the surgical bed sections; veterans with problems related to mental illness, including alcohol and drug problems, are treated in the psychiatric bed sections; and veterans requiring a level of care between acute and long-term or extended care are treated in the intermediate bed sections.

The VA nursing home care program is designed to accommodate individuals who are not acutely ill and not in need of hospital care, but who require skilled nursing care, related medical services, supportive personnel care, and individual adjustment services (including social, diversional, recreational, and spiritual activities and opportunities).

The VA domiciliary care program is directed toward providing necessary medical care and physical, social, and psychological support services in a sheltered environment and includes a program to prepare veterans who have the potential to function more independently to return to community living.

Outpatient medical and dental care is provided to eligible veteran beneficiaries in each of the VA medical centers and independent outpatient clinics. In addition, several medical centers operate satellite clinics in areas that are geographically remote from medical center facilities but have large veteran populations.

Most of VA's outpatient care is provided by its own professional staff. However, the services of private physicians and dentists are utilized on a fee basis to provide health care for eligible beneficiaries whenever the necessary VA facilities are not geographically accessible.

The **community nursing home** care program is designed to complement the VA nursing home program by providing skilled or intermediate nursing home care, for a period not to exceed 6 months, to veterans in their home communities as a transition from hospitalization in VA medical centers. Veterans hospitalized primarily for a service-connected disability are exempt from the 6-month limitation.

VA's rehabilitation-medicine services involve the clinical application of devices and techniques for aiding the physically handicapped. Immediately after World War II, such patients primarily consisted of young veterans with war injuries. Now, however, VA rehabilitation patients primarily suffer from the kinds of non-service-connected disabilities ordinarily incurred by men, with a large proportion suffering from the effects of chronic diseases associated with aging. The types of activities or therapies provided include physical therapy, recreational therapy, occupational therapy, vocational therapy, and so forth.

The following are VA's noninstitutional alternatives to hospitalization.

VA's Community Residential Care Home Program has been in existence since 1951 and currently is the largest of the extended care programs. The programs operate at minimal expense since the only cost to VA is for administration. This program provides residential care, including room, board, personal care, and general health care supervision, to veterans who do not require hospital or nursing home care but who, because of health conditions, are not able to resume independent living and have no suitable family resources to provide the needed care. All homes are inspected by a VA multidisciplinary team before incorporation into the program and annually thereafter. Care is provided in private homes selected by VA at the veteran's own expense. Veterans receive monthly follow-up visits from VA social workers and other health care professionals and are outpatients of the local VA facilities.

VA's Hospital Based Home Care has been in existence since 1970. The program provides for selected patients, who would otherwise remain in the hospital, to return to their own homes for further care. The patient and the family are instructed in nursing procedures and in daily care under the coordinated supervision of the hospital based treatment team. The team provides medical, nursing, social, rehabilitation, and dietetic regimens as follow-up to hospital care.

VA's Adult Day Health Care provides health care services to veterans in a congregate setting, during normal working hours, and includes medical, nursing, rehabilitative, social, recreational, and educational services. The provision of these services enables veterans to be maintained at home in a supportive environment, rather than be institutionalized in a nursing home or hospital.

In addition to the above established types of care, VA has initiated the hospice concept and the self-care concept at selected VA hospitals.

The hospice concept is a program of care in which an organized interdisciplinary team systematically provides palliative care (medical relief of pain) and supportive services to patients with a terminal illness. This team also assists the patient's family in making the necessary adjustment to the patient's illness and death. The program's objective is to make the patient's remaining days as comfortable and meaningful as possible and to help the family cope with stress.

existing health care literature describes the minimum care, or self-care, concept as being based on the fact that many hospitalized patients do not require the full range of services available in an acute care bed. The patients need minimum attention and are encouraged to be up and about rather than remaining in bed. Generally, patients must be ambulatory and able to bathe, dress, and feed themselves. They must be alert, able to communicate, and relatively free of the threat of acute episodes for which emergency treatment might be needed. They must not require any treatments that confine them to bed. This level of care is particularly applicable for the many VA patients who travel long distances from their residences to VA hospitals for diagnostic tests and procedures that would normally be performed in an outpatient setting if they lived closer.

OBJECTIVES, SCOPE, AND METHODOLOGY

The number of days a patient remains in a hospital (length of stay) is an important factor affecting the type and mix of resources needed to provide appropriate health care services to the hospital's patients. We initiated this audit to

- --assess the appropriateness of veterans' lengths of stay in VA hospitals and
- --if lengths of stay were found to be too long, determine what methods and practices could be implemented to reduce veterans' stays.

We visited 15 VA medical centers and the agency's headquarters. Our review work was performed between July 1983 and August 1984. The following is a list of hospitals reviewed, the number of medical and surgical beds at each hospital, and the average length of stay for those beds as reported by VA.

Hospitals Included in Review

	duri fiscal y	ng beds ^a ng ear 1982	Average length of stay during fiscal year 1982			
VA medical center	Medical	Surgical	Medical	Surgical		
Boise, Idaho	88	38	9.7	12.3		
Boston, Mass.	354	272	11.8	13.5		
Chicago (Westside), Ill.	238	181	15.4	17.1		
Denver, Colo.	109	157	10.3	11.0		
Los Angeles (Wadsworth),						
Calif.	322	223	10.1	10.5		
New Orleans, La.	208	182	13.8	15.5		
Philadelphia, Pa.	195	183	14.6	17.5		
Phoenix, Ariz.	212	122	12.8	11.7		
Roseburg, Oreg.	85	22	10.6	9.0		
San Antonio, Tex.	286	204	7.9	13.4		
San Diego, Calif.	259	198	10.0	10.2		
Seattle, Wash.	137	97	8.9	12.5		
Spokane, Wash.	117	94	13.0	12.9		
Togus, Maine	111	68	18.2	12.8		
Washington, D.C.	327	201	16.4	18.0		
System-wide average	230	115	13.2	12.9		

aAn operating bed is an authorized, in-service bed as opposed to an out-of-service bed.

We selected a mix of medical centers to assure they represented

- --a geographical cross-section of the country;
- --shorter as well as longer average lengths of stay;
- --low, medium, and high numbers of medical and surgical beds; and
- -- affiliated and nonaffiliated hospitals.

At each hospital, we reviewed records and interviewed officials who were knowledgeable about the practices and procedures affecting VA patient length of stay. These officials generally included the medical center director, the chief of staff, chiefs of services, physicians, nurses, social workers, UR staff, and others knowledgeable about admitting, treating, and discharging practices. We discussed UR procedures for monitoring average length of stay with hospital personnel responsible for such efforts.

We also discussed patient length of stay policies and management practices with many VA central office officials. These officials represented the Department of Medicine and Surgery. Their respective department level and title are shown below.

Resource	Management	Deputy Director
Health	Resource Management	Staff Director

Management Support
Management Operations Staff Chief

Medical Inspector and Associate Director
Evaluation Office Deputy Associate Director

Health Systems Planning Service Director

Professional Services Assistant Chief Medical

Director

Deputy Assistant Chief Medical Director

Medical Service Director

Surgical Service Director

Medical Administrative Service Director

Deputy Director

Allocation Development Service Director

We also contacted the following private organizations to discuss the basic elements of UR or surgery scheduling programs:

- -- American Hospital Association.
- -- Commission on Professional and Hospital Activities.
- --National Association of Quality Assurance Professionals.
- --Association of Operating Room Nurses.
- -- Hospital Association of New York State.

REVIEW APPROACH

We used three approaches to accomplish our review objectives. We used two of the approaches to identify opportunities to reduce lengths of stay. We used the third approach to determine if differences existed in professional and management practices at hospitals with longer lengths of stay versus those with shorter lengths of stay.

Review of medical charts by Washington State Professional Standards Review Organization

The initial approach, for which we hired a consultant, was aimed at determining if the length of stay for patients in 7 of the 15 hospitals included days that were either avoidable entirely or that could have been spent at another level of care, such as a nursing home. We selected the cases to be reviewed at each hospital from the fiscal year 1982 Patient Treatment File because it contained the most current data available when we began our review.

Sampling technique

We used a simple random sampling technique in choosing 50 medical and surgical patient charts for review at each of the seven hospitals. We wanted to evaluate only typical short-term patients and therefore excluded patients discharged from VA's psychiatric, intermediate, rehabilitation, and spinal cord injury wards.

We also excluded patients whose lengths of stay exceeded 99 days and patients who died while in the hospital. These two exclusions are consistent with some of those made by the Commission on Professional and Hospital Activities in its 1981 length of stay by diagnosis statistics.

Data reliability

We assessed the reliability of the sample data in two ways. Initially, we discussed the reliability of the VA Patient Treatment File data with hospital personnel. We also validated those data for the patients sampled by comparing the original background data--such as age, diagnoses, and admission and discharge dates--in the medical chart with the Patient Treatment File information. We found a 2.2-percent error rate.

Data projections

We are 95-percent confident that if we reviewed all 45,219 medical and surgical patient records at the seven hospitals, the number of avoidable days would be between 216,053 and 294,579 (253,316 \pm 39,263). The number of avoidable days attributable to poor management practices would be between 90,362 and 141,766 days (116,064 \pm 25,702).

Qualifications of the consultant

The Washington State Professional Standards Review Organization, which we hired for this phase of our review, was an independent corporation formed in 1974 to review care provided under Medicare and Medicaid programs. Our consultant, which is now known as the Professional Review Organization for Washington, continues to hold a grant from the federal government to review Medicare patients in Washington State. The consultant also provides concurrent problem-oriented in-hospital reviews for the private sector. Such reviews assure that medical services provided by practitioners and health care institutions are necessary, of acceptable quality, and delivered in an appropriate facility.

Chart review process

Our consultant used the Intensity of Service, Severity of Illness, and Discharge Screening (ISD) criteria for utilization monitoring during its chart review at each of the seven hospitals. These criteria rely on objective clinical signs of patient illness and documentation that intensive hospital services are being provided. The use of such criteria enables a non-physician review coordinator (usually a professional, experienced nurse) to rely upon actual clinical findings and other relevant information in the medical record to determine if further review by a physician is warranted.

The consultant sent two nonphysician screeners and two board-certified physicians (one surgeon/family practitioner and one internist) to each of the seven VA hospitals with our review team. The consultant's physicians reviewed all of the sampled medical charts that had not met the screening criteria. They used the ISD Criteria to determine the appropriateness of health care utilization and quality of care based on the documentation in the medical record. Our consultant categorized the medically avoidable days into the following five broad categories of practices during the detailed chart review.

- 1. Inappropriate Admissions.
- 2. Preadmission Testing.
- 3. Surgery Scheduling.
- 4. Diagnostic and Treatment, which included:
 - -- Delays in ordering tests.
 - --Delays in ordering or performing procedures.
 - --Delays in turnaround times for tests or procedures.
 - -- Delays in obtaining consultations.
 - --Medically unnecessary tests or procedures as related to unnecessary days of care.
- 5. Discharge, which included:
 - -- Delays in starting discharge planning.
 - --Delays in physician discharge order after the patient's condition stabilized.
 - --Delays in discharge after discharge order had been given.

Our consultant also identified the appropriate level of care for patients whose charts involved avoidable days.

One of the consultant's physicians, accompanied by GAO evaluators, met with the VA hospital's chief of medicine, neurology, or surgery or a representative to discuss in detail their observations about the medical charts they had questioned. This discussion centered on the hospital's admission (including surgery scheduling), diagnostic, and discharge practices (that is, were such procedures in place and being used?).

We then categorized the avoidable days identified by our consultant according to whether they were controllable by the hospital's director. If they were, the avoidable days fell within the "patient management practices" area. The following general guidelines were used in categorizing the days. If the

avoidable days resulted from inappropriate admissions, not performing preadmission testing, delays in performing surgery, delays in diagnostic practices, or delays in discharging the patient, we tentatively considered the days controllable by the hospital director.

We examined the above categorization in light of the interview information obtained from VA service chiefs on each case as it related to the availability of alternate levels of care, such as outpatient facilities and nursing homes. If the service chiefs cited the lack of alternate levels of care or other extenuating circumstances, such as limited ancillary services, as the reason for keeping the patient in the hospital, the avoidable days were categorized as a facilities-related problem. For instance, a patient due to be discharged to a nursing home, when his condition stabilized, was kept in the hospital (initially classified as a patient management practice problem) because there were no nursing home beds readily available (finally classified as a facility problem).

Concurrent review of hospital patients by GAO Chief Medical Advisor

Since the consultant was working with fiscal year 1982 data, we were concerned that those results might not accurately reflect current hospital conditions. We therefore also evaluated some fiscal year 1984 inpatients to determine if they needed to be in an acute care bed.

Our Chief Medical Advisor visited six of the seven hospitals visited by our consultant and evaluated the patients in selected medical and surgical wards. This evaluation was to determine if (1) the patient's medical condition required hospitalization in an acute care bed on that day and (2) if not, where the health care could have been more appropriately provided. This, together with our discussions with VA hospital officials concerning patient management procedures, gave us an understanding of each hospital's procedures at the time of our Advisor's review for admitting, treating, and discharging patients. It served to confirm that problems similar to those identified by our consultant under the initial approach still existed.

Sampling techniques

We did not use a random sampling technique because that approach presented too many logistical difficulties. Most of the six hospitals operate on a "team" concept, whereby several

physicians may be responsible for the patients in a given ward. Such a concept necessitated our giving the hospitals advance notice of our visit to assure the physicians would be available. An alternative would have been to wait until our arrival at the hospital to randomly select patients to evaluate and hope the responsible physician would be available. We chose instead to identify selected wards in advance and have our Chief Medical Advisor evaluate all patients in those wards.

The medical and surgical wards we visited at each hospital were chosen with the assistance of hospital officials. The officials assured us the selection provided us with a group of patients that were representative of the hospitals' population. In addition, to be consistent with the selection process for the initial phase, we excluded the following:

- --Patients in psychiatric, rehabilitation, dialysis, or long-term units.
- --Patients already scheduled for discharge on that day.
- --Patients who had been admitted that day.

Data projections

The results of this concurrent review by our Chief Medical Advisor are not projectable. However, we did evaluate 44 percent of the total patients in the six hospitals' medical and surgical wards on the days of our visit.

Evaluation process

The responsible VA physician and ward nurse accompanied the Chief Medical Advisor and our evaluation team during the review. Our Chief Medical Advisor discussed each patient with the VA physician and the ward nurse in two distinct phases. The initial phase was solely to determine the medical necessity for the patient being in an acute care bed. Our Chief Medical Advisor relied on the VA physician's recitation of the patient's history in forming his judgment. If he determined that the patient could appropriately be treated in an alternate setting, he then discussed with the VA personnel (1) what the most appropriate alternate setting would be and (2) why the patient was not in that setting. This discussion centered on (1) the availability of the alternate setting and (2) the nonmedical conditions (or so-called socioeconomic factors) endemic with that patient. ultimate question asked by our Chief Medical Advisor was, "Could this person receive appropriate medical care at an alternate setting, presuming such setting was readily available?"

Review of specific diagnoses by GAO Chief Medical Advisor

Our third approach was aimed at determining whether differences existed in the professional and management practices used by 3 of the 15 VA hospitals we visited, and if so, whether those differences affected the patients' lengths of stay. We made our length of stay comparisons by selecting two of the more frequent acute medical diagnoses and two of the more frequent acute surgical diagnoses for patients discharged in fiscal year 1982.

Sampling technique

We used a simple random sampling technique in choosing 12 patient charts for each of the four diagnoses selected for review at two of the hospitals. However, at Denver we reviewed 46 cases because medical records were available for only 10 patients ages 50 to 64 who had a single diagnosis of unspecified cataract and a single operation. We selected the patient cases to be reviewed at each hospital from the fiscal year 1982 Patient Treatment File because it contained the most current data available at the time we began our review. We selected a single surgical diagnosis to avoid the effect of secondary diagnoses on the patients' lengths of stay. We divided the length of stay for the sample of surgical patients having one operation into preoperation and postoperation days. The sample of patients with a medical diagnosis was limited to the primary diagnosis and no operations. We believed this would assure the sample was sufficiently homogeneous to warrant comparisons of length of stay due to medical care received.

We wanted to evaluate only short-term patients and therefore made similar exclusions to those described on page 43. Finally, to further assure that we compared similar types of patients, we included only those patients whose age was within the 50 to 64 range. The VA Administrator's 1983 Annual Report showed that this patient age grouping had the highest proportion of discharges from VA hospitals.

The three hospitals we visited were selected based on their average length of stay data as reported in the Patient Treatment File. Two of the hospitals had relatively shorter lengths of stay for all four of the diagnoses, while the third hospital had longer lengths of stay.

Data reliability

We assessed the reliability of the Patient Treatment File data for the patients sampled by comparing the original background data—such as age, diagnosis, and admission and discharge dates—in the medical chart with the Patient Treatment File information. We found a 1.02-percent error rate.

Chart review process

Our Chief Medical Advisor evaluated each patient in terms of the intensity of service the patient was receiving and the severity of the patient's illness. Our Advisor based his determination on documentation in the patient's medical record. Then, our Advisor, accompanied by our evaluators, met with the chief of medicine or surgery to discuss in detail the medical charts that had been questioned. This discussion centered on the hospital's admission (including surgery scheduling), diagnostic, and discharge practices.

COMPARISON OF FISCAL YEARS 1982 AND 1983

AVERAGE LENGTH OF STAY

FOR PATIENTS AGES 50 TO 64 WITH THE

MEDICAL OR SURGICAL DIAGNOSIS SPECIFIED

The chart on the following pages provides average length of stay data for two medical diagnoses (heart failure and acute myocardial infarction) and two surgical diagnoses (inguinal hernia and unspecified cataract). The ranges of the average lengths of stay for these four diagnoses during fiscal year 1983 were:

- 1. Inguinal Hernia: 2.9 to 16.8 days
- 2. Unspecified Cataract: 1.8 to 37.0 days
- 3. Heart Failure: 5.0 to 74.0 days
- 4. Acute Myocardial Infarction: 9.1 to 36.0 days

We did not verify the accuracy of VA's computer data.

The chart uses the following abbreviations:

Dist No: VA District Number

No pts 83: Number of patients discharged in fiscal

year 1983

Pre op 82: Average preoperative stay in fiscal year 1982

Pre op 83: Average preoperative stay in fiscal year 1983

ALOS 1982: Average length of stay in fiscal year 1982

ALOS 1983: Average length of stay in fiscal year 1983

Ntch 8283: Net change between average length of stay

during fiscal years 1982 and 1983

The names of the hospitals we visited are in capital letters.

COMPARISON OF FISCAL YEARS 1982 AND 1983 AVERAGE LENGTH OF STAY FOR PATTENTS AGES 50 TO 64 WITH THE MEDICAL OR SURGICAL DIAGNOSIS SPECIFIED

															ACUTE MYOCARDIAL						
		INCUINAL HERNIA					UNSPECIFIED CATARACT							HEART	FAILUR	E	INFARCTION				
		No					ALOS	No					ALOS	No			ALOS	No			ALOS
	Dist	pts	Pre	Pre	ALOS	ALOS	Ntch	<u>pts</u> 83	Pre	Pre	ALOS	ALOS	NtCh	pts	ALOS	ALOS	NtCh	pts	ALOS	ALOS	Ntch
Hospital name	No	83	op82	op83	1982	1983	8283	83	op82	op83	1982	1983	8283	pts 83	1982	1983	8283	pts 83	1982	1983	8283
Manchester	1	4	1.2	1.0	4.0	3.2	(8.0)	1	1.5	1.0	3.0	3.0	0.0	21	14.5	15.0	0.5	17	17.3	11.9	(5.4)
TOCUS	1	19	3.5	1.1	7.0	5.1	(1.9)	1	3.4	3.0	9.0	7.0	(2.0)	2	15.0	32.0	17.0	11	19.8	18.3	(1.5)
West Roxbury	1	13	2.3	1.6	5.3	5.9	0.6	0	.0	.0	0.0	0.0	0.0	12	10.8	8.3	(2.5)	10	11.8	12.2	0.4
White River	1	13	1.6	1.6	5.8	6.6	0.8	0	.0	.0	.0	0.0	0.0	17	17.1	9.4	(7.7)	22	12.0	14.7	2.7
Providence	1	5	2.2	4.2	6.8	7.8	1.0	0	.0	.0	.0	0.0	0.0	27	12.0	13.1	1.1	37	14.6	17.6	3.0
HOSTON	1	5	3.5	5.6	7.7	10.4	2.7	2	2.3	5.5	6.3	8.5	2.2	36	10.3	9.3	(1.0)	36	16.0	13.8	(2.2)
Buffalo	2	21	3.2	1.9	7.4	5.9	(1.5)	22	3.6	3.4	6.8	6.6	(0.2)	42	16.4	13.7	(2.7)	45	18.9	15.5	(3.4)
Albany	2	9	1.8	2.3	6.4	6.3	(0.1)	0	.0	•0	.0	0.0	0.0	35	15.1	14.1	(1.0)	32	11.6	15.9	4.3
Batavia	2	1	2.0	2.0	9.0	8.0	(1.0)	0	.0	.0	•0	0.0	0.0	1	16.0	5.0	(11.0)	9	16.2	27.5	11.3
Syracuse	2	22	2.3	5.0	5.8	10.2	4.4	4	1.6	1.7	3.6	4.4	0.8	45	11.8	14.5	2.7	33	15.1	14.3	(0.8)
Newington	3	12	2.1	2.4	7.2	6.4	(0.8)	5	2.0	2.0	7.0	8.6	1.6	10	20.6	9.2	(11.4)	12	13.1	11.0	(2.1)
San Juan	3	36	4.5	3.9	7.7	7.3	(0.4)	5	5.6	2.0	11.2	8.0	(3.2)	55	14.5	11.5	(3.0)	 55	17.5	15.8	(1.7)
West Haven	3	10	3.8	4.2	8.6	8.1	(0.5)	8	4.1	3.5	8.8	7.1	(1.7)	31	10.7	11.2	0.5	23	11.4	14.1	2.7
Northport	3	17	7.6	4.8	11.8	8.2	(3.6)	15	3.2	2.8	5.9	4.8	(1.1)	40	11.9	14.3	2.4	30	14.3	15.5	1.2
New York	3	49	4.7	3.1	10.1	9.4	(0.7)	35	2.4	3.5	9.2	10.5	1.3	31	15.1	12.3	(2.8)	30	13.1	14.0	0.9
Brooklyn, NY	3	28	5.4	6.3	10.9	11.0	0.1	7	3.5	3.0	13.6	11.5	(2.1)	61	14.6	14.0	(0.6)	45	21.5	15.7	(5.8)
Bronk, NY	3	20	4.0	5.3	10.4	11.0	0.6	13	4.4	3.5	8.3	6.2	(2.1)	46	16.1	14.2	(1.9)	38	19.7	16.6	(3.1)
Castle Point	3	2	16.0	4.5	24.0	11.5	(12.5)	0	.0	.0	•0	0.0	0.0	21	8.2	12.2	4.0	5	23.2	18.4	(4.8)
Lyons	4	0	7.0	0.0	12.0	0.0	(12.0)	0	.0	0.0	.0	0.0	0.0	4	29.2	33.5	4.3	1	19.0	36.0	17.0
Wilmington	4	7	3.0	3.4	8.6	8.2	(0.4)	6	2.8	2.0	5.9	4.1	(1.8)	9	15.8	19.6	3.8	15	21.8	10.8	(11.0)
PHILADELPHIA	4	25	4.2	2.1	9.9	7.1	(2.8)	20	3.0	1.8	9.7	4.1	(5.6)	46	11.3	11.8	0.5	32	12.2	14.7	2.5
East Orange	4	28	5.6	6.2	10.7	10.7	0.0	6	2.8	2.6	5.3	5.2	(0.1)	73	12.1	11.7	(0.4)	25	19.5	14.6	(4.9)
Wilkes Barre	4	8	5.8	5.3	13.6	12.8	(0.8)	1	6.2	31.0	16.4	37.0	20.6	10	19.6	18.3	(1.3)	13	16.2	20.6	4.4
Lebanon	4	2	3.0	6.5	11.0	13.5	2.5	3	2.3	2.6	6.6	4-2	(2.4)	5	10.0	14.0	4.0	5	15.0	12.4	(2.6)
- -		_						_			3.0	702	1/	_	1000	1440	4.0	,	10.0	14.4	(2.0)

				INGUIN	al her	NIA			UN	SPECIE	TIED CA	TARACT			HEART	FAILUR	E			MYDCARD ARCTION	IAL
	N	No	D	D	AT 00	47.00	ALOS	No	_	_			ALOS	No			ALOS	No			ALOS
Hospital name	Dist No	pts 83	Pre op82	Pre op83	ALOS 1982	ALOS 1983	Ntch 8283	pts 83	Pre op82	Pre op83	ALOS 1982	ALOS 1983	NtCh 8283	pts 83	ALOS 1982	ALOS 1983	NtCh 8283	pts 83	ALOS 1982	ALOS 1983	NtCh 8283
Erie	5	5	.0	1.0	•0	5.2	5.2	0	.0	.0	.0	0.0	0.0	5	15.0	28.0	13.0	2	10.0	25.5	15.5
Clarksburg	5	12	2.5	1.6	9.0	5.9	(3.1)	0	.0	.0	.0	0.0	0.0	14	10.7	10.5	(0.2)	17	15.7	16.1	0.4
Pittsburgh/U	5	13	3.0	3.1	8.8	7.7	(1.1)	21	2.0	3.0	4.3	7.0	2.7	41	10.1	11.6	1.5	27	12.3	15.0	2.7
Altoona	5	6	6.3	3.8	10.8	8.9	(1.9)	4	4.5	3.7	8.5	7.7	(8.0)	8	12.4	11.3	(1.1)	12	19.0	20.3	1.3
Baltimore	6	18	1.8	1.8	6.2	5.5	(0.7)	31	1.3	1.0	3.3	4.4	1.1	37	10.2	8.0	(2.2)	23	13.9	13.3	(0.6)
Martinsburg	6	13	2.0	2.0	8.4	8.9	0.5	2	2.3	3.5	5.1	10.5	5.4	20	15.2	23.9	8.7	23	18.2	27.0	8.8
WASHINGTON, D.C.	6	24	5.0	5.6	9.9	10.5	0.6	4	3.3	13.0	9.5	25.2	15.7	54	14.9	11.1	(3.8)	24	17.5	17.2	(0.3)
Huntington	7	11	5.6	2.6	9.2	5.0	(4.2)	0	•0	.0	.0	0.0	0.0	39	12.0	9.1	(2.9)	34	9.9	10.2	0.3
Salem	7	20	2.2	1.8	5.7	5.3	(0.4)	5	6.1	1.0	9.5	3.4	(6.1)	22	10.9	18.6	7.7	42	16.7	15.3	(1.4)
Richmond	7	34	2.6	3.1	6.5	6.5	0.0	12	4.4	4.5	9.7	7.7	(2.0)	38	9.0	11.3	2.3	24	11.0	11.0	0.0
Beckley	7	1	2.5	3.0	9.5	8.0	(1.5)	0	.0	.0	.0	0.0	0.0	15	18.4	21.8	3.4	22	18.9	15.5	(3.4)
Hampton	7	12	3.3	6.1	8.0	13.2	5.2	3	.9	1.0	2.8	3.0	0.2	10	13.6	9.2	(4.4)	22	18.2	20.0	1.8
Salisbury	8	6	2.1	1.5	6.2	5.1	(1.1)	0	.0	.0	.0	0.0	0.0	24	13.1	15.6	2.5	13	17.7	16.5	(1.2)
Asheville	8	11	1.3	1.0	8.8	5.7	(3.1)	0	1.6	.0	4.9	0.0	(4.9)	31	13.8	13.8	0.0	49	14.2	16.1	1.9
Durham	8	22	3.1	4.6	6.1	8.4	2.3	11	2.8	4.4	6.1	6.8	0.7	17	12.2	12.7	0.5	40	12.5	11.0	(1.5)
Fayetteville	8	14	2.5	3.0	7.2	9.5	2.3	0	•0	.0	.0	0.0	0.0	34	19.1	17.8	(1.3)	41	18.1	17.6	(0.5)
Mountain Home	8	21	5.8	5.9	11.6	12.3	0.7	11	1.0	1.0	3.2	2.9	(0.3)	38	12.8	10.9	(1.9)	26	13.9	11.8	(2.1)
Charleston	9	17	5.0	1.7	8.3	4.5	(3.8)	4	1.1	1.0	5.5	3.2	(2.3)	36	11.7	8.3	(3.4)	48	11.2	14.6	3.4
Columbia	9	23	4.2	3.1	9.2	6.8	(2.4)	19	1.4	1.6	3.9	3.7	(0.2)	14	13.6	7.7	(5.9)	55	14.1	11.1	(3.0)
Dublin	9	11	2.0	2.3	8-2	7.6	(0.6)	0	.0	•0	•0	0.0	0.0	7	20.5	10.1	(10.4)	20	19.0	18.3	(0.7)
Augusta	9	12	4.2	6.9	6.8	10.7	3.9	23	4.7	5.4	8.2	8.8	0.6	26	11.5	11.8	0.3	43	16.5	17.2	0.7
Atlanta	9	39	7.4	8.9	12.6	14.0	1.4	17	2.8	3.5	5.4	7.9	2.5	26	10.5	6.6	(3.9)	75	12.0	10.3	(1.7)

ACUTE MICCARDIAL

				NILLINI	al her	AIA			UN	SPECIF	IED CAI	CARACT			HEART	FAILURE	3		INF/	NCTION	
		No					ALOS	No					ALOS	No			ALOS	No			ALOS
	Dist	pts	Pre	Pre	ALOS	ALOS	Ntch	pts	Pre	Pre	ALOS	ALOS	NtCh	pts 83	ALOS 1982	ALOS	NtCh	pts	ALOS	ALOS	NtCh
Hospital name	No	83	op82	op83	1982	1983	8283	<u>pts</u> 83	op82	op83	1982	1983	8283	83	1982	1983	8283	83	1982	1983	8283
								_	_	_	_			_							- 0
Tuekegee	10	0	4.0	•0	14.0	0.0	(14.0)	0	.0	.0	.0	0.0	0.0	6	7.2	6.1	(1.1)	1	11.2	17.0	5.8
Biloxi	10	19	2.8	1.8	5.8	4.0	(1.8)	9	1.0	1.2	2.3	2.9	0.6	9	16.3	19.4	3.1	20	21.9	27.5	5.6
Birmingham	10	27	3.8	2.6	7.9	6.6	(1.3)	4	2.4	3.0	4.9	6.5	1.6	55 35	12.9	10.4	(2.5)	47	13.7	12.8	(0.9)
Jackson	10	30	2.9	6.2	4.6	8.1	3.5	0	1.0	.0	4.5	0.0	(4.5)	35	12.3	8.8	(3.5)	39	18.1	11.0	(7.1)
Montgomery	10	1	1.2	1.0	5.8	9.0	3.2	0	.0	•0	•0	0.0	0.0	8	6.0	17.2	11.2	12	14.7	15.8	1.1
Lexington ¹	11	13	1.5	2.0	4.3	5.0	0.7	0	0.0	.0	.0	0.0	0.0	60	11.3	11.3	0.0	65	12.5	16.5	4.0
Louisville	11	23	3.5	4.1	7.7	9.1	1.4	6	2.9	1.8	5.6	3.9	(1.7)	65	9.8	10.2	0.4	45	12.8	16.2	3.4
Memphis	11	36	5.9	6.5	10.0	9.6	(0.4)	2	2.0	8.5	4.2	9.5	5.3	68	10.4	10.7	0.3	57	15.7	13.2	(2.5)
Nashville	11	27	4.1	8.7	8.2	14.8	6.6	28	1.3	1.8	4.5	6.0	1.5	39	11.0	14.9	3.9	74	11.0	10.9	(0.1)
																					(0.0)
Gainesville	12	28	2.2	2.1	5.4	6.0	0.6	32	1.3	2.0	4.9	4.6	(0.3)	30	6.7	9.2	2.5	31	13.6	11.4	(2.2)
Bay Pines	12	22	4.3	2.8	11.0	7.3	(3.7)	0	.0	.0	.0	0.0	0.0	17	11.8	14.0	2.2	26	14.2	13.5	(0.7)
Tampa	12	32	2.7	5.4	5.9	8.4	2.5	11	1.2	1.4	2.8	3.1	0.3	59 16	9.8	8.7	(1.1)	52	11.9	10.8	(1.1)
Lake City	12	17	4.0	4.5	10.2	10.4	0.2	0	2.5	.0	10.0	0.0 5.7	(10.0)	14	15.9 9.2	11.8 8.0	(4.1)	11 52	19.5 11.4	14.5	(5.0) 1.7
Miami	12	33	4.4	7.0	8.7	10.7	2.0	55	2.3	2.8	5.8	3.7	(0.1)	75	7.2	0.0	(1.2)	32	11.4	13.1	1./
Cincinnati	13	23	3.2	2.1	7.0	5.8	(1.2)	7	3.4	4.0	6.1	6.1	0.0	28	11.1	10.5	(0.6)	14	20.5	14.1	(6.4)
Cleveland	13	25	2.5	2.0	6.7	6.4	(0.3)	4	2.7	5.5	7.2	10.0	2.8	28	11.6	9.6	(2.0)	28	11.9	9.1	(2.8)
Dayton	13	15	5.2	4.6	10.6	9.9	(0.7)	5	3.2	2.4	6.3	3.4	(2.9)	35	12.0	11.4	(0.6)	23	15.6	14.5	(1.1)
													/a a\		10.6		(5.0)	•	•••	٥.	(0.1)
Ann Arbor	14	8	2.9	2.8	6.1	4.6	(1.5)		1.1	1.5	5.4	3.2	(2.2)		13.6	8.4	(5.2)		11.6	9.5	(2.1)
Saginaw	14	14	4.9	2.2	10.4	6.4	(4.0)		.0	.0	.0	0.0	0.0	22	9.8	13.4	3.6	13	12.8	14.9	2.1
Allen Park	14	12	3.0	4.6	6.3	7.8	1.5	1	1.3	1.0	6.1	4.0	(2.1)	32	10.8	8.2	(2.6)	14	13.1	15.4	2.3
Danville	15	11	3.3	1.8	6.7	5.5	(1.2)	0	1.3	.0	6.6	0.0	(6.6)		10.7	10.1	(0.6)	12	15.4	14.5	(0.9)
Indianapolis	15	23	2.2	2.2	5.7	5.6	(0.1)	13	1.0	1.0	4.8	3.6	(1.2)	44	11.1	10.7	(0.4)	55	14.4	15.2	0.8
Fort Wayne	15	7	4.0	2.5	10.2	11.0	0.8	3	4.7	4.3	9.2	8.6	(0.6)	5	12.9	15.0	2.1	16	17.4	24.3	6.9

¹ Cooper Drive.

58

				INCUIN	al heri	AIA			UN	SPECIE	TED CA	TARACT			HEART	FAILLE	₹.			MOCARDI ARCTION	ial.
		No					ALOS	No					ALOS	No			ALOS	No			ALOS
	Dist	pts	Pre	Pre	ALOS	ALOS	Ntch	pts	Pre	Pre	ALOS	ALOS	NtCh	pts 83	ALOS	ALOS	NtCh	No pts 83	ALOS	ALOS	NtCh
Hospital name	No	83	op62	op63	1982	1983	8283	<u>83</u>	op82	op83	1982	1983	8283	83	1982	1983	8283	83	1982	1983	8283
Madison	16	9	3.3	2.3	5.8	6.0	0.2	,	1 (5 0	0.0		2.0		0.5		(0.0)	_			
Wood	16	27	2.4	3.4	6.0	6.8	0.2	7	1.6	5.0 1.8	8.0 6.1	11.0 4.5	3.0	17	9.5	9.2	(0.3)	8	13.6	9.8	(3.8)
Iron Mountain	16	11	2.0	2.9	6.5	8.9	2.4	ó	2.0	•0			(1.6)	33	19.6	18.3	(1.3)	37	16.2	20.6	4.4
Iron montain	10	11	2.0	2.7	0.5	0.7	2.4	U	2.0	•0	8.0	0.0	(8.0)	7	10.8	9.5	(1.3)	13	12.3	14.9	2.6
Chicago/Lakesid	e 17	27	5.3	3.2	11.4	7.9	(3.5)	8	2.2	1.1	5.8	3.4	(2.4)	44	14.1	16.5	2.4	38	16.1	17.9	1.8
Hines	17	37	5.7	40	11.0	8.1	(2.9)	17	7.4	4.9	11.7	8.7	(3.0)	134	13.5	12.2	(1.3)	13	13.2	12.3	(0.9)
North Chicago	17	3	8.6	3.0	13.1	9.0	(4.1)	3	2.0	2.3	3.5	4.9	1.4	18	16.5	11.2	(5.3)	13	13.2	12.0	(1.2)
CHICAGO/WESTSID	E 17	33	6.5	7.3	10.2	11.3	1.1	5	4.7	1.6	10.2	6.4	(3.8)	13	16.1	15.0		14	24.0	21.9	(2.1)
												•	()				(1)				(2-1)
Minneapolis	18	23	3.3	3.0	7.3	6-2	(1.1)	0	3.6	.0	6.9	0.0	(6.9)	53	9.1	9.5	0.4	70	11.2	13.0	1.8
Fargo	18	8	2.8	3.2	8.4	7.5	(0.9)	1	.0	2.0	•0	11.0	11.0	9	6.2	15.3	9.1	9	14.5	13.7	(0.8)
Sioux Falls	18	17	5.8	6.8	11.8	12.9	1.1	12	3.6	3.7	11.1	9.2	(1.9)	21	16.5	11.9	(4.6)	20	15.3	14.5	(0.8)
No. Little Rock		0	•0	0.0	•0	0.0	0.0	0	•0	•0	•0	0.0	0.0	1	.0	74.0	74.0	0	.0	0.0	0.0
Shreveport	19	15	4.3	3.6	7.5	6.9	(0.6)	13	2.0	1.4	4.1	2.7	(1.4)	40	9.6	11.7	2.1	68	13.7	12.1	(1.6)
Little Rock	19	46	5.2	5.2	8.4	8.4	0.0	18	4.7	3.9	8.1	7.1	(1.0)	44	10.2	9.2	(1.0)	101	11.0	11.3	0.3
NEW ORLEANS	19	32	6.1	6.1	8.8	8.9	0.1	6	5.8	3.0	8.8	5.8	(3.0)	50	13.7	13.0	(0.7)	65	13.2	16.4	3.2
Alexandria	19	21	3.5	5.0	6.8	9.1	2.3	14	2.0	1.9	5.1	6.9	1.8	15	9.0	10.0	1.0	6	19.4	14.3	(5.1)
Fayetteville	19	7	6.3	5.0	12.3	9.5	(2.8)	0	.0	•0	•0	0.0	0.0	16	11.6	11.1	(0.5)	28	17.5	18.0	0.5
SAN ANTONIO	20	48	1.8	3.0	4.1	5.4	1.3	24	2.8	2.4	4.1	3.7	(0.4)	63	9.5	11.7	2.2	97	15.2	12.4	(2.0)
Dallas	20	51	4.1	3.0	7.4	5.7	(1.7)	3	1.6	2.3	5.6	8.3	2.7	56	11.2	9.9	(1.3)	58	14.8	12.9	(2.8)
Temple	20	42	3.0	2.9	7.4	6.5	(0.9)	33	2.2	1.8	5.2	4.6	(0.6)	16	9.5	11.5	2.0	ж 33			(1.9)
Oklahoma	20	41	4.2	3.4	8.6	7.7	(0.9)	48	2.3	2.3	4.8	4.3	(0.5)	28	8.7	9.7	1.0	33 29	17.8	16.8	(1.0)
Muskogee	20	15	2.7	2.8	7.7	8.9	1.2	0	.0	•0	.0	0.0	0.0	33	12.2	9.8	(2.4)		8.5	10.1	1.6
Houston	20	41	3.4	5.1	6.4	8.1	1.7	7	2.5	3.5	4.8	5.3	0.5	33 50	11.1	9.3		25 75	12.6	11.4	(1.2)
Kerrville	20	11	4.0	3.3	11.5	8.7		ó	.0	•0	.0	0.0	0.0	30 4			(1.8)	75 12	14.4	14.3	(0.1)
Bonham	20	7	2.6	2.0	10.2	12.5	(2.8) 2.3	0	.0					4	13.4	24.2	10.8	12	26.0	20.7	(5.3)
IAAR KAU	20	,	2.0	2.0	10.2	12.5	2.3	U	.0	•0	.0	0.0	0.0	1	7.5	7.0	(0.5)	9	15.6	20.3	4.7

				INCUIN	AL HER	VIA			UN	SPECIF	TED CA	EARACT			HEART	FAILUR	E			MOCARD ARCITION	[AL
Hospital name	Dist No	No pts 83	Pre op82	Pre op83	ALOS 1982	ALOS 1983	ALOS Ntch 8283	No pts 83	Pre op82	Pre op63	ALOS 1982	ALOS 1983	NtCh 8283	No pts 83	ALOS 1982	ALOS 1983	ALOS NtCh 8283	No pts 83	ALOS 1982	ALOS 1983	ALOS NtCh 8283
Columbia	21	18	2.6	2.2	6.3	5.9	(0.4)	18	1.3	1.0	4.2	2.9	(1.3)	42	15.3	9.9	(5-4)	68	11.9	12.3	0.4
St. Louis	21	22	3.0	2.5	7.0	6.9	(0.1)	10	1.0	2.0	3.9	3.8	(0.1)	33	10.0	11.5	1.5	36	13.0	13.1	0.1
Poplar Bluff	21	4	3.3	2.7	9.5	8.2	(1.3)	0	.0	.0	•0	0.0	0.0	18	14.2	12.3	(1.9)	38	19.6	17.3	(2.3)
Marion	21	9	2.6	2.6	8.7	8.2	(0.5)	0	4.0	.0	8.0	0.0	(8.0)	18	14.4	7.6	(6.8)	18	14.7	13.0	(1.7)
Topeka	22	4	1.2	1.2	6.4	5.9	(0.5)	0	.0	.0	•0	0.0	0.0	11	13.7	12.0	(1.7)	13	12.4	13.8	1.4
Wichita	22	10	1.3	3.0	4.3	6.5	2.2	2	3.0	3.0	7.0	7.0	0.0	17	14.0	12.9	(1.1)	14	15.0	12.2	(2.8)
Leavenworth	22	1	4	1.0	12.4	8.0	(4.4)	2	.0	1.0	.0	3.0	3.0	7	16.4	18.2	1.8	10	18.6	34.9	16.3
Kansas City	22	16	5	5.5	8.6	9.4	0.8	8	2.5	3.0	6.4	5-2	(1.2)	41	11.4	10.7	(0.7)	32	15.4	14.4	(1.0)
Fort Meade	23	5	3.1)	2.0	7.8	6.2	(1.6)	0	•0	.0	•0	0.0	0.0	6	11.3	11.5	0.2	11	13.8	12.1	(1.7)
Lincoln	23	8	3.1	2.8	7.6	6.4	(1.2)	1	1.0	1.0	4.6	4.0	(0.6)	8	11.6	13.7	2.1		14.0	15.8	1.8
Iowa City	23	11	2• ó	2.5	7.1	6.4	(0.7)	10	1.7	1.9	4.7	3.8	(0.9)	26	12.2	8.8	(3.4)		11.6	12.5	0.9
Hot Springs	23	3	4.0	2.3	10.0	6.6	(3.4)	0	.0	.0	.0	0.0	0.0	2	35.0	35.5	0.5		16.0	23.9	7.9
Des Moines	23	4	4.0	2.5	8.0	7.7	(0.3)	0	.0	.0	.0	0.0	0.0	16	12.0	10.4	1.6	21	11.5	11.8	0.3
Grand Island	23	4	1.0	3.2	4.0	9.2	5.2	0	4.0	.0	6.0	0.0	(6.0)	12	15.4	13.2	2.2	11	18.2	19.7	1.5
Omaha	23	5	4.)	6.4	9.0	10.4	1.4	2	1.7	1.0	5.4	3.5	(1.9)	42	10.8	17.6	6.8	35	14.9	16.8	1.9
DENVER	24	14	1.4	1.9	3.6	4.1	0.5	7	1.9	1.4	5.6	7.1	1.5	24	7.3	13.0	5.7	46	11.1	9.6	(1.5)
Grand Junction	24	9	1.2	1.4	6.4	4.6	(1.8)	ó	•0	.0	.0	0.0	0.0	8	13.2	12.8	(0.4)	22	14.4	16.1	1.7
Salt Lake City	24	21	3.2	2.9	6.9	5.4	(1.5)	ŏ	2.0	.0	4.0	0.0	(4.0)	49	16.0	13.6	(2.4)	47	11.1	11.2	0.1
Miles City	24	6	3. l	1.8	7.5	6.6	(0.9)	Ö	2.8	.0	9.2	0.0	(9.2)	8	17.2	16.5	(0.7)	6	15.0	19.5	4.5
Fort Harrison	24	2	3.)	2.0	6.5	8.5	2.0	Ö	•0	.0	•0	0.0	0.0	10	9.6	12.3	2.7	11	16.1	12.0	(4.1)
	24	12	2.4	3.2	7.8	8.9	1.1	2	2.2	2.0	11.9	19.5	7.6	6	22.0	9.1	(12.9)	16	16.6	10.6	(6.0)
Cheyenne	24	12	۷٠٠	3.2	7.0	0.7	1+1	2	۷•۷	2.00	11.7	13.3	7.0	O	22.0	7-1	(12.9)	10	10.0	10-0	(0.0)

				INCUIN	al her	AIA			UN	SPECIF	TED CA	EARACT			HEART	FAILUR	E .			MYOCARD: ARCTION	IAL
Hospital name	Dist No	No pts 83	Pre op82	Pre op83	ALOS 1982	ALOS 1983	Ntch 8283	No pts 83	Pre op82	Pre op83	ALOS 1982	ALOS 1983	NtCh 8283	No pts 83	ALOS 1982	ALOS 1983	ALOS NtCh 8283	No pts 83	ALOS 1982	ALOS 1983	ALOS NtCh 8283
Tucson Big Spring Albuquerque PHOENIX Amarillo Prescott San Diego LONG BEACH	25 25 25 25 25 25 25 26 26	19 6 12 34 11 10	1.6 2.2 1.5 3.8 5.1 1.8	1.9 2.0 2.3 5.0 4.8 12.0	4.3 6.7 4.7 8.2 10.2 7.0 3.1 4.4	4.1 5.6 6.4 7.5 10.5 16.8	(0.2) (1.1) 1.7 (0.7) 0.3 9.8 (0.2) (0.5)	7 16 14 5 0 0	3.3 2.3 1.2 1.1 .0 3.0	2.7 2.6 3.3 .9 .0 .0	6.5 6.4 3.6 2.8 .0 7.5	5.8 5.4 5.1 1.8 0.0 0.0	(0.7) (1.0) 1.5 (1.0) 0.0 (7.5)	35 2 27 41 24 17	11.1 13.1 11.1 12.2 13.9 14.6	9.5 15.0 8.5 11.3 11.9 11.9	(1.6) 1.9 (2.6) (0.9) (2.0) (2.7) 1.7 0.6	46 10 42 60 16 17 90 79	14.8 11.6 11.8 12.0 11.1 16.7	13.1 10.7 14.1 13.1 12.4 15.7	(1.7) (0.9) 2.3 1.1 1.3 (1.0)
Loma Linda Sepulveda LOS ANGELES/ WADSWORTH	26 26 26 26	39 29 37	2.1 4.1 2.2	2.0 2.8 4.7	5.5 6.6 4.7	4.4 5.1 7.1	(1.1) (1.5) 2.4	1 0 10	1.0 2.2 2.8	1.0 .0 3.0	2.7 4.2 4.9	3.0 0.0 5.0	0.3 (4.2) 0.1	25 28 86	12.6 6.1 8.0	10.8 9.3 9.4	(1.8) 3.2 1.4	43 23 65	17.1 12.5 12.3 10.3	12.8 12.6 12.0	(1.0) 0.3 0.3 1.7
Palo Alto San Francisco Fresno Livermore Martinez Reno	27 27 27 27 27 27	14 40 13 6 33 19	2.6 1.5 3.1 2.3 2.9 3.1	1.5 1.3 1.7 1.1 3.0 4.0	4.8 5.7 6.6 7.3 6.4 7.5	4.0 4.4 4.6 4.7 6.0 8.4	(0.8) (1.3) (2.0) (2.6) (0.4) 0.9	1 38 4 0 15 1	2.0 2.7 1.0 .0 2.3 2.0	3.0 2.2 1.0 .0 3.8 2.0	6.5 5.9 2.0 .0 7.8 6.0	8.0 4.8 3.0 0.0 9.4 6.0	1.5 (1.1) 1.0 0.0 1.6 0.0	26 31 29 12 30 10	10.0 10.1 8.4 14.6 18.5 9.1	10.3 10.2 6.8 17.0 18.2 10.3	0.3 0.1 (1.6) 2.4 (0.3) 1.2	24 23 25 14 22 36	13.0 13.1 13.4 13.6 20.3 15.2	9.0 10.6 13.9 14.6 18.8 10.9	(4.0) (2.5) 0.5 1.0 (1.5) (4.3)
Vancouver Walla Walla BOISE ROSEBURG SEATILE SPOKANE Portland	28 28 28 28 28 28 28 28	0 8 12 13 19 13 38	4.2 1.1 2.6 2.7 1.6 2.4 2.4	0.0 1.0 1.2 2.2 3.5 2.3 2.2	10.5 4.1 7.0 6.0 4.8 8.1 5.3	0.0 5.0 6.0 6.5 7.1 7.7 4.6	(10.5) 0.9 (1.0) 0.5 2.3 (0.4) (0.7)	0 0 3 0 4 0 6	.0 2.0 .0 1.5 .0 6.8	0.0 .0 3.6 .0 1.2 .0 5.6	0.0 .0 3.5 .0 3.5 .0 9.3	0.0 0.0 4.6 0.0 4.7 0.0 9.6	0.0 0.0 1.1 0.0 1.2 0.0 0.3	5 4 8 8 33 2 59	14.0 22.2 15.8 11.2 6.6 22.0 10.5	13.8 17.5 7.5 6.7 9.3 21.5 8.6	(0.2) (4.7) (8.3) (4.5) 2.7 (0.5) (1.9)	11 9 27 13 23 14 50	15.2 12.2 13.2 10.0 10.2 14.1 14.5	11.3 14.3 13.6 14.1 14.9 13.7 12.5	(3.9) 2.1 0.4 4.1 4.7 (0.4) (2.0)

61

COMPARISON OF FISCAL YEARS 1982 AND 1983

SURGICAL AVERAGE LENGTH OF STAY AND

1-DAY SURGICAL STAYS IN VA HOSPITALS

The chart on the following pages provides data on the average length of stay (ALOS) and percentage of 1-day stays for surgical sections in VA hospitals during fiscal years 1982 and 1983. The chart also shows the net changes from fiscal year 1982 to fiscal year 1983 for each of these categories. The range of these data for fiscal year 1983 is as follows:

- 1. Average Length of Stay: 7.5 to 47.5 days
- 2. 1-day stays: 1.1 to 35.2 percent

The data for average length of stay are for patients discharged from a surgical bed during fiscal years 1982 and 1983. The average length of stay figures exclude patients whose stays exceeded 99 days.

We did not verify the accuracy of VA's computer data.

The chart uses the following abbreviations:

Dist No.: VA District number

Aff: Affiliation (1=affiliated, 0=nonaffiliated)

Total bed83: Total average number of medical and surgi-

cal beds operating for 1983, excluding intermediate and spinal cord injury beds

Surg Bed83: Total surgical beds for 1983

Occup rate83: Surgical occupancy rate for 1983

ALOS 82surg: Average length of stay 1982

ALOS 83surg: Average length of stay 1983

NtCh 8283: Net change between 1982 and 1983

1-day Surg82: Percentage of patients discharged that are

1-day surgical stays for 1982

APPENDIX IV APPENDIX IV

Percentage of patients discharged that are 1-day surgical stays for 1983 1-day Surg83:

Intermediate Care Ward in 1983 (1=yes, Int Care83:

0=no)

The names of the hospitals we visited are in capital letters.

COMPARISON OF 1982 AND 1983 VA HOSPITAL DATA ON SURGICAL ALOS AND 1-DAY STAYS

							AVERAGE GIH OF S	TAY	1-0	PERCENT MY SURGIO	CAL	
	Dist.		Total	Surg	Occup	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83	rate83	82 surg	83surg	8283	surg82	Surg83	8283	Care83
West Roxbury	1	1	159	73	91.8	10.7	10.5	(0.20)	28.8	27.7	(1.10)	0
White River	1	1	168	79	68.4	11.4	11.4	0.00	7.6	5.8	(1.80)	0
Manchester	1	1	1.34	45	68.9	12.5	12.4	(0.10)	8.7	7.4	(1.30)	0
TOGUS	1	0	177	67	80.6	12.8	14.5	1.70	19.3	18.2	(1.10)	1
BOSTON	1	1	646	279	74.6	13.5	13.4	(0.10)	16.6	17.4	0.80	0
Providence	1	1	261	83	84.3	17.6	15.9	(1.70)	8.3	7.8	(0.50)	0
Syracuse	2	1	270	131	71.8	10.7	10.3	(0.40)	22.7	26.7	4.00	0
Albany	2	1	377	169	78. 7	13.5	13.8	0.30	13.1	18.0	4.90	1
Buffalo	2	1	548	196	83.2	16.6	15.3	(1.30)	9.2	11.9	2 .7 0	1
Batavia	2	1	153	3 0	66.7	17.2	16.8	(0.40)	8.3	8.4	0.10	1
West Haven	3	1	385	135	59.3	10.7	9.7	(1.00)	26.5	33.4	6.90	1
Castle Point	3	0	196	70	85.7	11.5	11.4	(0.10)	24.4	26.6	2.20	0
San Juan	3	1	432	173	82.7	14.2	14.5	0.30	4.4	4.7	0.30	0
Northport	3	1	326	160	81.3	14.4	12.8	(1.60)	16.0	21.1	5.10	1
Newington	3	1	151	82	78.0	14.6	14.3	(0.30)	6.3	8.8	2.50	0
New York	3	1	669	297	74.4	16.2	16.8	0.60	6.4	5.6	(0.80)	0
Bronx, NY	3	1	504	233	84.1	16.5	17.3	0.80	8.6	5.6	(3.00)	0
Brooklyn, NY	3	1	669	213	76.1	17.2	16.9	(0.30)	8.9	9.2	0.30	1
Lebanon	4	0	122	29	82.8	14.3	13.3	(1.00)	8.0	9.5	1.50	1
Lyons ¹	4	1	177	0	0.0	17.4	0.0	(17.40)	6.3	0.0	(6.30)	1
PHILADELPHIA	4	1	370	185	83.8	17.5	15.8	(1.70)	4.5	6.0	1.50	0
Wilmington	4	1	317	150	60.7	18.0	14.1	(3.90)	11.1	18.3	7.20	0
East Orange	4	1	646	222	85.6	18.2	19.7	1.50	3.1	2.6	(0.50)	1
Wilkes Barre	4	1	314	121	80.2	19.9	18.5	(1.40)	9.6	19.8	10.20	1
Erie	5	0	135	39	84.6	10.5	9.8	(0.70)	26.0	29.5	3.50	0
Altoona	5	0	137	31	61.3	11.9	11.0	(0.90)	24.0	26.5	2.50	0
Pittsburgh/Univ	5	1	450	183	77.6	14.1	13.2	(0.90)	9.3	9.1	(0.20)	1
Clarksburg	5	1	179	66	74.2	14.6	13.9	(0.70)	12.4	10.0	(2.40)	0

 $^{^{1}\}mathrm{The}$ surgical section at Lyons was closed during fiscal year 1983.

						LEN	AVERAGE GIH OF S	ľay	1-1	PERCENT MAY SURGIO	CAL	
	Dist.		Total	Surg	Occup	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83	rate83	82 surg	83surg	8283	surg82	surg83	8283	Care83
						·						
Baltimore	6	1	251	109	81.7	11.1	11.8	0.70	16.7	11.6	(5.10)	0
Martinsburg	6	1	392	60	86.7	13.5	12.1	(1.40)	12.1	15.0	2.90	0
WASHINGTON, D.C.	6	1	528	201	77.1	18.0	19.3	1.30	2.9	3.5	0.60	0
,												
Beckley	7	1	174	60	71.7	12.5	12.7	0.20	12.0	12.2	0.20	0
Salem	7	1	178	76	76.3	12.7	10.8	(1.90)	8.0	10.0	2.00	1
Huntington	7	1	176	65	67.7	12.9	9.8	(3.10)	12.5	19.0	6.50	0
Richmond	7	1	424	175	83.4	14.4	14.2	(0.20)	7.9	7.0	(0.90)	1
Hampton	7	1	236	94	78.7	14.6	14.7	0.10	6.7	7.6	0.90	1
	•	_	221	٠,	0				10.0	14.0	(* 00)	
Fayetteville	8	1	224	74	81.1	11.4	12.5	1.10	18.2	16.9	(1.30)	1
Asheville	8	1	375	145	69.7	14.6	14.1	(0.50)	4.2	4.4	0.20	1
Durtham	8	1	359	178	83.7	15.4	15.1	(0.30)	3.6	3.6	0.00	0
Salisbury	8	0	158	40	87.5	16.0	15.8	(0.20)	6.0	6.1	0.10	1
Mountain Home	8	1	308	141	82.3	17.4	17.7	0.30	6.0	6.4	0.40	1
Charleston	9	1	184	81	82.7	10.4	10.4	0.00	16.5	18.1	1.60	0
Dublin	9	ō	186	36	80.6	11.9	10.9	(1.00)	13.7	14.7	1.00	1
Columbia	9	1	400	168	62.5	12.0	12.0	0.00	13.8	12.8	(1.00)	0
Augusta	9	1	32 0	150	76.0	13.3	14.8	1.50	6.4	7.8	1.40	1
Atlanta	9	1	393	192	79.7	13.7	14.5	0.80	9.0	7.4	(1.60)	0
Jackson	10	1	378	164	78.0	9.4	10.1	0.70	26.8	22.9	(3.90)	0
Biloxi	10	1	231	60	76.7	9.6	10.2	0.60	21.5	14.3	(7.20)	1
Montgomery	10	1	126	28	67.9	10.7	9.6	(1.10)	10.7	13.5	2.80	1
Birmingham	10	1	409	206	65.0	11.0	10.4	(0.60)	19.7	21.2	1.50	0
Tuskegee	10	1	290	79	82.3	14.5	13.0	(1.50)	7.3	10.4	3.10	1
2												
Lexington ²	11	1	306	130	75.4	10.4	9.6	(0.80)	16.3	17.0	0.70	1
Memphis	11	1	517	203	76.8	12.6	13.1	0.50	7.0	6.2	(0.80)	1
Louisville	11	1	300	148	71.6	13.7	13.1	(0.60)	8.4	8.9	0.50	0
Nashville	11	1	438	205	70.2	14.6	14.8	0.20	6.0	6.0	0.00	0

²Cooper Drive.

							AVERAGE		_	PERCENT		
				_	_		CIH OF S			Y SURCIC		_
	Dist.		Total	Surg	0ccrib	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83	rate83	82 surg	83surg	8283	surg62	surg83	8283	Care83
Gainesville	12	1	373	215	78.6	10.1	10.7	0.60	26.8	24.4	(2.40)	0
Bay Pines	12	ō	443	151	77.5	10.6	10.7	0.10	31.1	28.8	(2.30)	i
Lake City	12	0	326	75	78.7	11.3	10.7	(0.60)	19.1	22.2	3.10	0
Miami	12	1	446	209	75.6	11.8	13.9	2.10	18.2	18.9	0.70	1
Tampa	12	1	488	237	72.2	12.9	12.3	(0.60)	17.7	18.4	0.70	0
Cincinnati	13	1	262	130	72.3	12.1	11.5	(0.60)	4.4	4.4	0.00	0
Cleveland	13	1	509	252	65.1	16.4	16.7	0.30	5.6	5.5	(0.10)	1
Dayton	13	1	325	159	67.9	16.6	16.9	0.30	3.6	3.8	0.20	1
Ann Arbor	14	1	230	104	85.6	9.4	9.3	(0.1)	14.4	19.6	5.20	0
Saginaw	14	1	158	43	58.1	11.0	9.1	(1.9)	16.2	19.3	3.10	0
Allen Park	14	1	329	150	74.0	12.5	11.1	(1.4)	15.5	19.5	4.00	1
Danville	15	1	168	73	65.8	11.6	9.9	(1.7)	14.2	21.2	7.00	1
Indianapolis	15	1	371	151	77.5	11.6	11.8	0.2	13.9	13.8	(0.10)	0
Fort Wayne	15	0	176	44	63.6	11.9	12.2	0.3	11.3	12.2	0.90	0
Madison	16	1	312	147	62.6	12.8	12.1	(0.7)	5.5	5.5	0.00	0
Iron Mountain	16	0	199	81	55.6	14.4	12.9	(1.5)	12.7	12.6	(0.10)	0
Wood	16	1	461	239	79.9	16.9	15.2	(1.7)	7.1	6.4	(0.70)	1
Chicago/Lakeside	17	1	412	146	69.2	16.8	14.1	(2.7)	5.0	11.5	6.50	0
CHICAGO/WEST SIDE	17	1	400	173	84.4	17.1	16.2	(0.9)	3.9	4.6	0.70	0
Hines	17	1	821	273	64.5	18.3	15.8	(2.5)	3.0	3.2	0.20	0
North Chicago	17	1	271	85	55.3	20.9	14.2	(6.7)	5.0	8.2	3.20	1
Minneapolis	18	1	639	308	66.9	11.9	12.0	0.1	17.9	16.4	(1.50)	0
Fargo	18	1	207	66	62.1	12.1	12.7	0.6	16.3	12.5	(3.80)	0
Sioux Falls	18	1	210	93	68.8	13.5	14.4	0.9	4.1	12.2	8.10	0
Shreveport	19	1	306	114	83.3	9.8	9.8	0.0	11.8	10.9	(0.90)	0
Little Rock	19	1	4413	2463		10.4	10.0	(0.4)	10.0	11.9	1.90	0
Fayetteville	19	0	180	65	78.5	11.6	12.0	0.4	10.1	11.4	1.30	0

 $^{^3}$ The number of total beds and surgical beds were the average for fiscal year 1983 according to North Little Rock Hospital Medical Administration Service.

							AVERAGE GIH OF S	FAY	1-0	PERCENT MY SURGIO	CAI.	
	Dist.		Total	Surg	Occup	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83		82surg	83surg	8283	surg82	surg83	8283	Care83
Alexandria	19	1	244	94	76.6	11.9	11.6	(0.3)	11.9	12.3	0.40	1
NEW ORLEANS	19	1	38 4,	181,	85.1	15.5	16.4	0.9	4.0	3.8	(0.20)	0
No. Little Rock	19	1	96 ⁴	50 ⁴	90.0	42.3	42.5	0.2	0.3	0.5	0.2	1
Bonham	20	0	63	15	86.7	10.4	8.9	(1.50)	27.5	19.1	(8.40)	0
Oklahoma.	20	1	326	157	63.1	11.2	10.7	(0.50)	9.0	8.4	(0.60)	0
Dallas	20	1	525	239	77.0	12.7	12.4	(0.30)	13.1	12.2	(0.90)	0
Houston	20	1	644	203	83.3	13.2	12.5	(0.70)	5.0	5.8	0.80	0
SAN ANTONIO	20	1	490	204	87.3	13.4	13.6	0.20	5.1	6.8	1.70	0
Muskogee	20	1	200	102	62.7	14.1	15.0	0.90	6.9	6.8	(0.10)	0
Kerrville	20	0	252	40	57.5	14.4	11.6	(2.80)	10.1	16.6	6.50	0
Temple	20	1	492	195	71.3	14.8	13.8	(1.00)	5.1	6.0	0.90	0
Columbia	21	1	278	131	73.3	9.9	9.7	(0.20)	9.7	10.1	0.40	0
Marion	21	1	171	38	76.3	11.0	11.4	0.40	12.8	10.8	(2.00)	0
Poplar Bluff	21	0	166	43	65.1	11.2	10.8	(0.40)	6.8	9.9	3.10	0
St. Louis	21	1	566	194	79.4	13.1	11.8	(1.30)	15.2	19.9	4.70	0
Topeka	22	1	238	57	80.7	11.0	11.2	0.20	21.0	27.5	6.50	1
Kansas City	22	1	296	1 3 5	81.5	12.6	12.3	(0.30)	14.6	13.3	(1.30)	Ō
Wichita	22	1	173	73	69.9	12.7	13.5	0.80	10.2	9.4	(0.80)	0
Leavenworth	22	1	204	49	59.2	14.1	12.8	(1.30)	9.9	11.7	1.80	1
Fort Meade	23	1	79	25	84.0	10.4	10.0	(0.40)	6.1	11.5	5.40	1
Hot Springs	23	1	141	36	80.6	10.9	9.9	(1.00)	17.1	17.4	0.30	1
Iowa City	23	1	269	131	81.7	11.1	11.1	0.00	10.4	8.1	(2.30)	ō
Lincoln	23	1	117	52	67.3	11.3	10.9	(0.40)	19.5	22.1	2.60	Ō
Des Moines	23	1	269	129	69.0	13.3	12.1	(1.20)	6.4	6.8	0.40	Ö
Grand Island	23	0	147	34	70.6	13.8	12.5	(1.30)	8.7	9.9	1.20	Ö
Omaha	23	1	298	120	75.0	14.4	13.8	(0.60)	7.9	6.3	(1.60)	0
Miles City	24	0	88	18	72.2	8.4	7.5	(0.90)	25.1	23.7	(1.40)	0
DENVER	24	1	253	140	85.7	11.0	11.4	0.40	23.9	24.3	0.40	Ö
Grand Junction	24	0	87	26	69.2	11.5	10.4	(1.10)	16.8	16.7	(0.10)	Ö

⁴See note 3 on page 65.

							AVERACE			PERCENT		
							CIH OF S	<u> </u>	1-D4	Y SURGIC	AL	
	Dist.		Total	Surg	Occup	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83	rate83	surg82	surg83	8283	surg82	surg83	8283	care83
Fort Harrison	24	0	155	44	77.3	11.7	11 /	(0.20)	10.0	10.0	(0.10)	•
Salt Lake City	24 24	1	278	109	76.1		11.4	(0.30)	10.3	10.2	(0.10)	0
_	24 24	0	129			11.9	10.8	(1.10)	6.5	12.8	6.30	1
Cheyenne	24	U	129	35	48.6	12.6	12.0	(0.60)	16.9	10.3	(6.60)	0
Tucson	25	1	277	120	77.5	9.1	9.1	0.00	29.4	29.8	0.40	0
Prescott	25	0	187	49	49.0	9.3	9.4	0.10	13.9	13.4	(0.50)	Ö
Rig Spring	25	1	139	60	58.3	10.5	10.1	(0.40)	8.1	7.7	(0.40)	ì
PHOENIX	25	1	334	124	80.6	11.7	10.2	(1.50)	19.8	25.8	6.00	Ō
Albuquerque	25	1	303	139	72.7	12.3	12.6	0.30	5.1	5.2	0.10	Ö
Amarillo	25	1	113	56	89.3	12.9	11.4	(1.50)	10.0	10.8	0.80	Ö
SAN DIEGO	26	1	472	204	56.4	10.2	10.3	0.10	13.6	12.6	(1.00)	0
LOS ANGELES/WADS	26	1	575	223	66.8	10.5	10.9	0.40	12.7	9.2	(3.50)	1
Sepulveda	26	1	340	94	68.1	12.0	11.3	(0.70)	7.4	7.7	0.30	1
Loma Linda	26	1	361	155	69.0	12.6	11.5	(1.10)	6.0	6.5	0.50	0
Long Beach	26	1	768	228	80.3	12.8	13.4	0.60	7.9	8.1	0.20	0
Reno	27	1	158	70	72.9	8.5	8.6	0.10	24.7	27.5	2.80	0
San Francisco	27	1	307	173	77.5	9.6	10.5	0.90	21.7	21.1	(0.60)	0
Martinez	27	1	329	119	88.2	12.0	10.5	(1.50)	20.8	28.9	8.10	Ö
Fresno	27	1	185	75	72.0	12.2	10.0	(2.20)	27.2	29.9	2.70	0
Palo Alto	27	ī	290	125	73.6	13.4	12.7	(0.70)	9.5	10.9	1.40	1
Livermore	27	0	171	67	58.2	14.0	13.0	(1.00)	8.2	13.2	5.00	Ō
ROSEBURG	28	0	117	22_	72.7	9.0	7.6	(1.40)	18.0	35.2	17.20	1
Portland	28	0	378 ⁵	191 ⁵	61.3	11.1	10.1	(1.00)	13.9	16.3	2.40	0
BOISE	28	1	131	43	81.4	12.3	12.4	0.10	6.9	7.2	0.30	0
SEATTLE	2 8	1	234	97	90.7	12.5	12.6	0.10	7.1	5.9	(1.20)	0
SPOKANE	28	0	211	85	64.7	12.9	13.2	0.30	14.4	14.8	0.40	0
Walla Walla	28	0	112_	26_	65•4	13.5	12.5	(1.00)	13.3	13.6	0.30	0
Vancouver	28	0	1485	15 ⁵	67.0	16.3	47.5	31.20	16.2	1.1	(15.10)	0

⁵The number of the total beds and the surgical beds are as of September 1983 and are not averages, according to Portland's medical data clerk.

COMPARISON OF FISCAL YEARS 1982 AND 1983

MEDICAL AVERAGE LENGTH OF STAY AND

1-DAY MEDICAL STAYS IN VA HOSPITALS

The chart on the following pages provides data on the average length of stay (ALOS) and percentage of 1-day stays for medical sections in VA hospitals during fiscal years 1982 and 1983. The chart also shows the net changes for each of these categories from fiscal year 1982 to fiscal year 1983. The range of these data for fiscal year 1983 is as follows:

1. Average Length of Stay: 7.5 to 22.0 days

2. 1-day stays: 2.6 to 39.9 percent

The data for average length of stay are for patients discharged from a medical bed during fiscal years 1982 and 1983. The average length of stay figures exclude patients discharged from intermediate, rehabilitation, or spinal cord injury bed sections and patients with stays exceeding 99 days.

We did not verify the accuracy of VA's computer data.

The chart uses the following abbreviations:

Dist No.: VA District number

Aff: Affiliation (1=affiliated, 0=nonaffiliated)

Total bed83: Total average number of medical and surgi-

cal beds operating for 1983, excluding intermediate and spinal cord injury beds

Med Bed83: Total average number of medical beds oper-

ating for 1983, excluding intermediate and

spinal cord injury beds

Occup rate83: Medical occupancy rate for 1983

ALOS 82med: Average length of stay 1982

ALOS 83med: Average length of stay 1983

NtCh 8283: Net change between 1982 and 1983

Percentage of patients discharged that are 1-day medical stays for 1982 1-day Med82:

Percentage of patients discharged that are 1-day medical stays for 1983 1-day Med83:

Intermediate Care Ward on 1983 (1=yes, Int Care83:

0=no)

The names of the hospitals we visited are in capital letters.

COMPARISON OF 1982 TO 1983 VA HOSPITAL DATA ON MEDICAL ALOS AND 1-DAY STAYS

						LE	AVERAGE NGTH OF S	STAY	1-0	PERCENT MY MEDIC	CAL	
	Dist.	1	Total	Med	Occup	ALOS	ALOS	NtCh	1-day	l-day	NtCh	Int
Hospital name	No.	<u>Aff</u>	bed83	bed83	rate83	82med	83med	8283	med82	med83	8283	Care83
West Roxbury	1	1	159	86	64.0	8.1	10.1	2.00	41.2	14.0	(27.20)	0
White River	1	1	168	89	80.9	12.1	10.5	(1.60)	17.8	17.8	0.00	0
Manchester	1	1	134	89	92.1	14.2	13.7	(0.50)	5 .9	6.9	1.00	0
TOGUS	1	0	177	110	90.9	18.2	19.1	0.90	5.3	5.4	0.10	1
BOSTON	1	1	646	367	73.8	11.8	11.7	(0.10)	8.2	12.0	3.80	1
Providence	1	1	261	178	73.0	8.9	8.7	(0.20)	43.6	39.9	(3.70)	0
Syracuse	2	1	270	139	79.9	10.3	9.9	(0.40)	21.8	22.9	1.10	0
Albany	2	1	377	208	81.7	13.4	13.5	0.10	9.8	7.3	(2.50)	1
Buffalo	2	1	548	352	90.1	15.7	14.7	(1.00)	4.9	3.8	(1.10)	1
Batavia	2	1	153	123	80.5	17.6	18.9	1.30	5.8	6.8	1.00	1
West Haven	3	1	385	250	64.4	10.0	8.6	(1.40)	24.4	31.9	7.50	1
Castle Point	3	0	196	126	75.8	12.1	12.4	0.30	7.4	7.1	(0.30)	0
San Juan	3	1	432	259	87.8	16.3	14.1	(2.20)	4.6	5.1	0.50	0
Northport	3	1	326	166	84.3	12.1	12.5	0.40	6.2	6.9	0.70	1
Newington	3	1	151	69	76.8	11.4	10.3	(1.10)	13.1	14.8	1.70	0
New York	3	1	669	372	89.2	13.7	13.3	(0.40)	11.9	11.6	(0.30)	0
Bronx, NY	3	1	504	271	78.1	16.7	14.5	(2.20)	8.4	9.3	0.90	0
Brooklyn, NY	3	1	669	456	77.9	13.2	11.9	(1.30)	გ•2	8.6	0.10	1
Lebanon	4	0	122	93	90.3	17.6	16.4	(1.20)	9.4	9.6	0.20	1
Lyons	4	1	177	177	72.9	22.8	22.0	(0.80)	6.0	6.3	0.30	1
PHILADELPHIA	4	1	370	185	86.5	14.6	15.0	0.40	5.1	4.7	(0.40)	0
Wilmington	4	1	317	167	70.7	15.3	18.0	(0.7 0)	8.0	14.8	6.80	0
East Orange	4	1	646	424	78.0	14.0	12.6	(1.40)	5.6	6.1	0.50	1
Wilkes Barre	4	1	314	193	87.0	16.7	16.7	0.00	3.6	4.0	0.40	1
Erie	5	0	135	96	91.7	15.2	14.7	(0.50)	6.5	6.9	0.40	0
Altoona	5	0	137	106	70.8	16.2	14.4	(1.80)	11.2	9.5	(1.70)	0
Pittsburgh/Univ	5	1	450	267	71.2	11.6	11.9	0.30	9.7	6.4	(3.30)	1
Clarksburg	5	1	179	113	85.8	12.0	12.5	0.50	6.3	7.8	1.50	0

								AVERAGE			PERCENT		
Baltimore 6													
Baltimore 6 1 251 142 76.8 9.2 10.5 1.30 13.5 12.4 (1.10) Martinsburg 6 1 392 332 89.8 15.7 15.4 (0.30) 11.8 13.3 1.50 WASHINTON, D.C. 6 1 528 327 86.2 16.4 16.1 (0.30) 3.9 3.2 (0.70) Beckley 7 1 174 114 79.8 12.0 11.8 (0.20) 6.7 7.1 0.40 Salem 7 1 178 102 77.5 10.8 9.9 (0.90) 9.2 12.3 3.10 Huntington 7 1 176 111 87.4 11.7 12.0 0.30 9.8 9.1 (0.70) Richmond 7 1 424 249 81.0 10.8 10.6 (0.20) 11.8 13.9 2.10 Hampton 7 1 236 142 79.5 13.8 14.6 0.80 9.0 10.2 1.20 Fayetteville 8 1 224 150 90.0 13.4 13.2 (0.20) 6.3 5.3 (1.00) Asheville 8 1 375 230 86.5 14.7 13.6 (1.10) 3.2 5.3 2.10 Durham 8 1 359 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Olumbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Billoxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 (0.20) 4.5 6.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 11 1 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)			4.55										Int on
Martinsburg 6 1 392 332 89.8 15.7 15.4 (0.30) 11.8 13.3 1.50 WASHINGTON, D.C. 6 1 528 327 86.2 16.4 16.1 (0.30) 3.9 3.2 (0.70) Beckley 7 1 174 114 79.8 12.0 11.8 (0.20) 6.7 7.1 0.40 Salem 7 1 176 111 87.4 11.7 12.0 0.30 9.8 9.1 (0.70) Richmond 7 1 424 249 81.0 10.8 19.9 (0.90) 9.2 12.3 3.10 Hampton 7 1 424 249 81.0 10.8 10.90 13.4 13.2 (0.20) 11.8 13.99 2.10 Hampton 7 1 224 150 90.0 13.4 13.2 (0.20) 6.3 5.3 (1.00) Asheville<	Hospital name	No.	Att.	bediss	bedas	ratess	82med	8.5med	8283	medióz	menios	8283	Care83
Beckley	Baltimore	6	1	251	142	76.8	9.2	10.5	1.30	1 3. 5	12.4	(1.10)	0
Beckley 7 1 174 114 79.8 12.0 11.8 (0.20) 6.7 7.1 0.40 Salem 7 1 178 102 77.5 10.8 9.9 (0.90) 9.2 12.3 3.10 Huntington 7 1 176 111 87.4 11.7 12.0 0.30 9.8 9.1 (0.70) Richmond 7 1 424 249 81.0 10.8 10.6 (0.20) 11.8 13.9 2.10 Hampton 7 1 236 142 79.5 13.8 14.6 0.80 9.0 10.2 1.20 Fayetteville 8 1 224 150 90.0 13.4 13.2 (0.20) 6.3 5.3 (1.00) Asheville 8 1 375 230 86.5 14.7 13.6 (1.10) 3.2 5.3 2.10 Durham 8 1 379 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.5 (0.20) 9.2 8.1 (1.10) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montguery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Firmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Excitogran 1 1 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Hemphis 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Martinsburg	6	1	392	332	89.8	15.7	15.4	(0.30)	11.8	13.3	1.50	0
Salem 7 1 178 102 77.5 10.8 9.9 (0.90) 9.2 12.3 3.10 Huntington 7 1 176 111 87.4 11.7 12.0 0.30 9.8 9.1 (0.70) Richmond 7 1 424 249 81.0 10.6 (0.20) 11.8 13.9 2.10 Hampton 7 1 226 142 79.5 13.8 14.6 0.80 9.0 10.2 1.20 Fayetteville 8 1 224 150 90.0 13.4 13.2 (0.20) 6.3 5.3 (1.00) Asheville 8 1 375 230 86.5 14.7 13.6 (1.10) 3.2 5.3 2.10 Durham 8 1 359 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Balisbury 8 0 158	WASHINGTON, D.C.	6	1	528	327	86.2	16.4	16.1	(0.30)	3.9	3.2	(0.70)	0
Huntington 7 1 176 111 87.4 11.7 12.0 0.30 9.8 9.1 (0.70) Richmond 7 1 424 249 81.0 10.8 10.6 (0.20) 11.8 13.9 2.10 Hampton 7 1 236 142 79.5 13.8 14.6 0.80 9.0 10.2 1.20 Fayetteville 8 1 224 150 90.0 13.4 13.2 (0.20) 6.3 5.3 (1.00) Asheville 8 1 375 230 86.5 14.7 13.6 (1.10) 3.2 5.3 2.10 Durham 8 1 359 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Hontgomery 10 1 26 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 11 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Beckley	7	1	174	114	79.8	12.0	11.8	(0.20)	6.7	7.1	0.40	0
Richmond 7 1 424 249 81.0 10.8 10.6 (0.20) 11.8 13.9 2.10 Hampton 7 1 236 142 79.5 13.8 14.6 0.80 9.0 10.2 1.20 Fayetteville 8 1 224 150 90.0 13.4 13.2 (0.20) 6.3 5.3 (1.00) Asheville 8 1 375 230 86.5 14.7 13.6 (1.10) 3.2 5.3 2.10 Durham 8 1 359 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 11 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 12.2 0.00 5.8 4.2 (1.60)	Salem	7	1	178	102	77.5	10.8	9.9	(0.90)	9.2	12.3	3.10	1
Richmond 7	Huntington	7	1	176	111	87.4	11.7	12.0	0.30	9.8	9.1	(0.70)	0
Fayetteville 8 1 224 150 90.0 13.4 13.2 (0.20) 6.3 5.3 (1.00) Asheville 8 1 375 230 86.5 14.7 13.6 (1.10) 3.2 5.3 2.10 Durham 8 1 359 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Billoxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 11 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)		7	1	424	249	81.0	10.8	10.6	(0.20)	11.8	13.9	2.10	1
Asheville 8 1 375 230 86.5 14.7 13.6 (1.10) 3.2 5.3 2.10 Durham 8 1 359 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Arlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 1 1 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 44.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Hampton	7	1	236	142	79.5	13.8	14.6	0.80	9.0	10.2	1.20	1
Durham 8 1 359 181 79.0 12.9 12.6 (0.30) 4.6 3.0 (1.60) Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1	Fayetteville	8	1	224	150	90.0	13.4	13.2	(0.20)	6.3	5 .3	(1.00)	1
Salisbury 8 0 158 118 89.0 15.5 17.2 1.70 2.7 2.6 (0.10) Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Billoxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 26 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 1 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Asheville	8	1	375	230	86.5	14.7	13.6	(1.10)	3.2	5.3	2.10	1
Mountain Home 8 1 308 167 81.4 15.1 13.3 (1.80) 5.6 6.6 1.00 Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Arlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1	Durham	8	1	359	181	79.0	12.9	12.6	(0.30)	4.6	3.0	(1.60)	0
Charleston 9 1 184 103 82.5 10.7 10.5 (0.20) 9.2 8.1 (1.10) Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Billoxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Salisbury	8	0	158	118	89.0	15.5	17.2	1.70	2.7	2.6	(0.10)	1
Dublin 9 0 186 150 80.7 11.7 10.8 (0.90) 6.4 6.9 0.50 Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 </td <td>Mountain Home</td> <td>8</td> <td>1</td> <td>308</td> <td>167</td> <td>81.4</td> <td>15.1</td> <td>13.3</td> <td>(1.80)</td> <td>5.6</td> <td>6.6</td> <td>1.00</td> <td>1</td>	Mountain Home	8	1	308	167	81.4	15.1	13.3	(1.80)	5 . 6	6.6	1.00	1
Columbia 9 1 400 232 78.9 12.8 12.7 (0.10) 15.5 10.5 (5.00) Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 1 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Charleston	9	1	184	103	82.5	10.7	10.5	(0.20)	9.2	8.1	(1.10)	0
Augusta 9 1 320 170 76.1 13.3 12.2 (1.10) 3.4 3.8 0.40 Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 1 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Dublin	9	0	186	150	80.7	11.7	10.8	(0.90)	6.4	6.9	0.50	1
Atlanta 9 1 393 201 82.6 9.8 9.9 0.10 8.1 10.7 2.60 Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 1 1 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Columbia		1		232	78.9			•			•	0
Jackson 10 1 378 214 84.6 11.3 9.7 (1.60) 7.4 7.4 0.00 Bi loxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington ¹ 11 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1	Augusta	9	1	320	170	76.1	13.3		(1.10)	3.4		0.40	1
Biloxi 10 1 231 171 87.7 18.5 16.0 (2.50) 2.1 4.0 1.90 Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington ¹ 11 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Atlanta	9	1	393	201	82.6	9.8	9.9	0.10	8.1	10.7	2.60	0
Montgomery 10 1 126 98 80.6 10.0 10.6 0.60 10.5 8.8 (1.70) Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington ¹ 11 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Jackson	10	1	378	214	84.6	11.3	9.7	(1.60)		7.4		0
Birmingham 10 1 409 203 77.8 11.2 11.3 0.10 10.6 7.8 (2.80) Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 1 11 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Biloxi	10	1	231		87.7	18.5						1
Tuskegee 10 1 290 211 79.6 16.0 15.0 (1.00) 7.2 7.6 0.40 Lexington 1 11 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Montgomery	10	1									•	1
Lexington 1 11 1 306 176 84.1 11.5 11.3 (0.20) 4.5 16.5 12.00 Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Birmingham												0
Memphis 11 1 517 314 82.5 12.2 12.6 0.40 4.5 3.9 (0.60) Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)	Tuskegee	10	1	290	211	79.6	16.0	15.0	(1.00)	7.2	7.6	0.40	1
Louisville 11 1 300 152 78.9 12.2 12.2 0.00 5.8 4.2 (1.60)													1
	Memphis		1									•	1
Nashville 11 1 438 233 82.8 11.4 11.3 (0.10) 5.0 5.0 0.00			1									•	0
	Nashville	11	1	438	233	82.8	11.4	11.3	(0.10)	5•0	5.0	0.00	0

¹Cooper Drive.

	· · · · · · · · · · · · · · · · · · ·						AVERAGE					
						LENGTH OF STAY			1-1			
	Dist.		total	med	occup	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83	rate83	med82	med83	8283	med82	med83	8283	Care83
	-											
Gainesville	12	1	373	158	85.4	8.6	9.1	0.50	25.6	21.4	(4.20)	0
Bay Pines	12	0	443	29 2	74.3	13.0	14.4	1.40	14.4	14.9	0.50	1
Lake City	12	O	326	251	87.3	12.5	13.1	0.60	7.9	7.3	(0.60)	0
Miami	12	1	446	237	85.3	8.3	8.0	(0.30)	29.1	31.8	2.70	1
Tampa	12	1	488	251	85.0	7.3	7.7	0.40	37.3	37.7	0.40	0
Cincinnati	13	1	262	132	82.6	10.6	10.6	0.00	5.4	7.1	1.70	0
Cleveland	13	1	50 9	257	71.5	10.6	10.6	0.00	7.1	5 .9	(1.20)	1
Dayton	13	1	325	166	77.1	14.4	14.9	0.50	4.1	3.8	(0.30)	1
Ann Arbor	14	1	230	126	83.3	8.3	7.5	(0.80)	25.3	28.9	3.60	0
Saginaw	14	1	158	115	78.3	11.0	10.3	(0.70)	10.3	9.2	(1.10)	
Allen Park	14	1	329	179	81.6	8.8	9.4	0.60	20.0	13.4	(6.60)	
Danville	15	1	168	95	78.9	10.0	10.3	0.30	10.0	10.0	0.00	1
Indianapolis	15	1	371	220	73.2	11.6	10.7	(0.90)	5.4	5.3	(0.10)	0
Fort Wayne	15	0	176	132	79.5	12.0	12.9	0.90	9.2	7.7	(1.50)	
Madison	16	1	312	165	71.5	9.0	8.9	(0.10)	10.3	9.7	(0.60)	1
Iron Mountain	16	0	199	118	75.4	10.3	9.7	(0.60)	10.1	10.2	0.10	ō
Wood	16	1	461	222	84.9	13.8	12.2	(1.60)	3.8	3.9	0.10	1
Chicago/Lakeside	17	1	412	266	83.5	13.4	11.7	(1.70)	8.6	18.3	9.70	0
CHICAGO/WEST SIDE	17	ī	400	227	91.2	15.4	17.5	2.10	16.6	8.3	(8.30)	0
Hines	17	ī	821	548	85.8	17.0	16.5	(0.50)	3.5	3.1	(0.40)	
North Chicago	17	1	271	186	72.0	10.8	9.5	(1.30)	15.5	17.2	1.70	1
Minneapolis	18	1	639	331	85.5	9.9	9.7	(0.20)	5.1	10.8	5.70	0
Fargo	18	1	207	141	84.4	10.5	12.0	1.50	14.2	9.3	(4.90)	
Sioux Falls	18	1	210	117	68.4	13.5	11.9	(1.60)	5.8	5.7	(0.10)	
Shreveport	19	1	306	192	82.3	10.7	10.8	0.10	7.6	7.3	(0.30)	0
Little Rock	19	1	4412	1952	80.5	9.7	9.7	0.00	6.0	4.7	(1.30)	
Fayetteville	19	0	180	115	86.1	13.7	12.8	(0.90)	5.4	6.4	1.00	0

 $^{^2}$ The number of total beds and medical beds were the average for fiscal year 1983 according to North Little Rock Hospital Medical Administration Service.

							AVERAGE					
						LENGIH OF STAY			1-DAY MEDICAL			
	Dist.		Total	Med	Occup	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83	rate83	82med	83med	<u>8283</u>	med82	med83	8283	Care83
					•	·						
Alexandria	19	1	244	150	84.0	12.5	12.0	(0.50)	5.2	3.7	(1.50)	1
NEW ORLEANS	19	1	384	203	86.7	13.8	14.1	0.30	3.4	3.2	(0.20)	0
No. Little Rock	19	1	963	463	91.3	44.1	36.4	(7.70)	0.6	0.7	0.10	1
Bonham	20	0	63	48	97.9	12.5	13.9	1.4	7.6	9.9	2.30	0
Oklahoma	20	1	326	169	82.2	9.2	10.2	1.0	5.7	4.2	(1.50)	0
Dallas	20	1	525	286	78.3	10.5	10.3	(0.2)	6.1	6.6	0.50	0
Houston	20	1	644	441	86.4	14.1	15.2	1.1	5.2	4.4	(0.80)	0
SAN ANTONIO	20	1	490	286	85.0	7.9	7.7	(0.2)	25.5	23.0	(2.50)	0
Muskogee	20	1	200	98	77.6	11.1	11.2	0.1	6.4	6.0	(0.40)	0
Kerrville	20	0	252	212	80.2	14.1	13.9	(0.2)	8.7	9.9	1.20	0
Temple	20	1	492	297	76.8	14.7	13.8	(0.9)	6.6	8.2	1.60	1
Columbia	21	1	278	147	83.0	12.0	11.6	(0.40)	4.5	4.8	0.30	0
Marion	21	1	171	133	77.4	11.6	10.6	(1.00)	7.2	7.2	0.00	0
Poplar Bluff	21	0	166	123	76.4	12.8	12.6	(0.20)	3.5	4.0	0.50	0
St. Louis	21	1	566	372	84.4	9.8	9.3	(0.50)	30.0	26.8	(3.20)	0
Topeka	22	1	238	181	60.2	11.6	11.2	(0.40)	8.1	13.5	5.40	1
Kansas City	22	1	296	161	87.0	11.4	12.4	1.00	15.2	4.8	(10.40)	0
Wichita	22	1	173	100	75.0	12.7	11.6	(1.10)	12.5	16.2	3.70	0
Leavenworth	22	1	204	155	71.0	13.9	13.5	(0.40)	8.1	7.8	(0.30)	1
Fort Meade	23	1	79	54	57.4	13.3	11.7	(1.60)	8.0	10.0	2.00	1
Hot Springs	23	1	141	105	75.2	10.7	10.7	0.00	11.9	11.6	(0.30)	1
Iowa City	23	1	269	138	70.3	9.9	10.2	0.30	10.3	9.5	(0.80)	0
Lincoln	23	1	117	65	80.0	15.0	13.9	(1.10)	6.1	5.1	(1.00)	0
Des Moines	23	1	269	140	67.9	10.5	10.0	(0.50)	8.4	7.8	(0.60)	0
Grand Island	23	0	147	113	75.2	14.3	14.4	0.10	4.5	4.6	0.10	0
Omaha	23	1	298	178	81.5	12.4	12.4	0.00	6.2	6.3	0.10	0
Miles City	24	0	88	70	60.0	9.6	9.0	(0.60)	9.8	16.3	6.50	0
DENVER	24	1	253	113	84.1	10.3	10.3	0.00	10.3	8.6	(1.70)	0
Grand Junction	24	0	87	61	73.8	10.7	9.9	(0.80)	14.2	14.3	0.10	0
								•				

³See note 2 on page 72.

							AVERAGE PERCENT					
						LENGIH OF STAY			1-DAY MEDICAL			
	Dist.		Total	Med	Occup	ALOS	ALOS	NtCh	1-day	1-day	NtCh	Int
Hospital name	No.	Aff.	bed83	bed83	rate83	med82	med83	8283	medi82	med83	8283	care83
Fort Harrison	24	0	155	111	80.2	11.1	12.7	1.60	9.4	7.8	(1.60)	0
Salt Lake City	24	1	278	169	74.0	10.2	9.9	(0.30)	6.3	9.5	3.20	1
Cheyenne	24	0	129	94	77.7	12.2	11.7	(0.50)	13.6	11.6	(2.00)	0
Tucson	25	1	277	157	81.5	11.3	11.8	0.50	7.8	7.1	(0.70)	0
Prescott	25	0	187	138	65.2	11.4	11.1	(0.30)	12.6	10.4	(2.20)	0
Big Spring	25	1	139	79	49.4	11.6	11.7	0.10	3.1	3.4	0.30	0
PHOENIX	25	1	334	210	85.2	12.8	12.7	(0.10)	4.8	5.5	0.70	0
Albuquerque	25	1	3 03	164	75.0	10.9	11.2	0.30	7 . 9	7.4	(0.50)	0
Amarillo	25	1	113	57	89.5	9.5	8.8	(0.70)	25.0	25.0	0.00	0
SAN DIEGO	2 6	1	472	268	66.4	10.0	10.2	0.20	8.5	8.1	(0.40)	0
LOS ANGELES/WADS	26	1	575	352	75.6	10.1	9.4	(0.70)	15.1	14.8	(0.30)	1
Sepulveda	26	1	340	246	69.9	12.4	11.8	(0.60)	9.4	10.0	0.60	1
Loma Linda	26	1	361	206	89.3	12.9	11.3	(1.60)	6.5	8.6	2.10	0
Long Beach	26	1	768	540	78.6	14.7	14.2	(0.50)	6.5	6.3	(0.20)	0
Reno	27	1	158	88	72.7	10.9	10.4	(0.50)	13.4	18.3	4.90	0
San Francisco	27	1	307	134	61.2	8.0	8.7	0.70	18.1	17.8	(0.30)	0
Martinez	27	1	329	210	73.8	15.0	13.6	(1.40)	9.5	10.7	1.20	0
Fresno	27	1	185	110	72.7	9.9	9.8	(0.10)	10.8	13.3	2.50	0
Palo Alto	27	1	290	165	77.4	10.2	9.0	(1.20)	17.5	23.0	5.50	1
Livermore	27	0	171	104	85.6	15.3	17.1	1.80	7.1	6.1	(1.00)	0
ROSEBURG	28	0	117,	95,	81.1	10.6	10.3	(0.30)	11.8	12.2	0.40	1
Portland	28	0	378 ⁴	187 ⁴	80.2	11.4	9.5	(1.90)	10.2	16.1	5.90	0
BOISE	28	1	131	88	61.4	9.7	8.8	(0.90)	9.2	12.0	2.80	0
SEATTLE	28	1	234	137	75.9	8.9	9.4	0.50	10.4	9.3	(1.10)	0
SPOKANE	28	0	211	126	77.8	13.0	13.2	0.20	7.6	6.5	(1.10)	0
Walla Walla	28	0	112	86,	65.1	15.6	13.4	(2.20)	4.6	6.6	2.00	0
Vancouver	28	0	148 ⁴	133 ⁴	68.4	14.5	19.0	4.50	7.0	4.4	(2.60)	0

⁴The number of the total beds and the medical beds are as of September 1983 and are not averages, according to Portland's medical data clerk.

75

Office of the Administrator of Veterans Affairs

Washington DC 20420



JUN 27 1985

Mr. Richard L. Fogel
Director, Human Resources Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Fogel:

Your May 3, 1985 draft report "Better Patient Management Practices Could Reduce Length of Stay in VA Hospitals" has been reviewed.

Comments on the recommendations as well as general comments on the report are enclosed.

Thank you for the opportunity to review the report.

Sincerely,

HARRY N. WALTERS

Administrator

Enclosure

VETERANS ADMINISTRATION RESPONSE TO THE MAY 3, 1985 GAO DRAFT REPORT "BETTER PATIENT MANAGEMENT PRACTICES COULD REDUCE LENGTH OF STAY IN VA HOSPITALS"

The General Accounting Office (GAO) recommends that I direct the Chief Medical Director to:

-Revise current policies to place greater emphasis on reducing surgery delays and turnaround times for diagnostic consultations, tests, and procedures. In making these revisions, the Chief Medical Director should make the current policies and goals more specific, using such guidelines as those developed by the American Hospital Association.

I concur. The Department of Medicine and Surgery (DM&S) plans to revise current policies to place greater emphasis on reducing surgery delays and turnaround times for diagnostic consultations, tests, and procedures. DM&S Circular 10-84-10 "Preadmission Surgical Screening" encourages preadmission screening of elective surgical patients. This circular is being revised to make current policies and goals more specific. It should be published by the fourth quarter of Fiscal Year 1985. Better administrative guidelines will be issued to assist in reducing turnaround times in transcription services and filing patients' records. The installation of the Decentralized Hospital Computer Program (DHCP) laboratory software within the next year (1985-1986) will improve the problem of laboratory test results not being available in the chart when needed and will allow for the publication of more specific test turnaround time guidelines. Efforts to optimize laboratory productivity have been underway and will be continued.

-Develop reports at the VA Central Office and at individual hospitals to identify length of stay problems and those responsible for solving them. These reports could include such analyses as the following: (1) a comparison of length of stay by selected diagnosis categories at each VA hospital, (2) a comparison of length of stay for each physician's patients in a particular medical or surgical specialty, and (3) a list of patients who have been in the hospital for more than 30 days.

I concur. The implementation of the DHCP will greatly expand the potential for identifying length of stay problems. Software has been developed to assist facility management in identifying patients "at risk," in tracking patients to anticipate potential discharge problems, and in accessing available community resources. Reports generated from Patient Treatment File (PTF) sources currently compare specific diagnoses (e.g. cataracts and hernias). A new report has been developed to assist field facilities in identifying lengths of stay that may seem to be out of line. This report will be distributed to each medical center by the last quarter of Fiscal Year 1985. Program officials are also conducting studies to determine actions to be taken regarding length of stay issues.

-Require hospitals to use explicit patient screening criteria, such as those addressing intensity of care or severity of illness, to evaluate the appropriateness of the level of treatment.

I concur. The Joint Commission on Accreditation of Hospitals (JCAH), through the development of continuous monitors which are based on both implicit and explicit criteria, requires that all clinical services identify the major aspects of care within their services and review and evaluate the quality and appropriateness of care provided. This is in addition to the hospitalwide, criteria-based utilization review (UR) activities. GAO has placed great emphasis on the cyclic review system using the Intensity of Services, Severity of Illness, and Discharge Screening Criteria (ISD). There are other methodologies available for the medical centers to use. Although the ISD approach is considered very complex and not necessarily suitable for all of our facilities, we strongly agree that screening criteria to validate findings must be used during the review process. Our emphasis, therefore, will be to assist the facilities in developing a sound UR program with the flexibility of choosing their own methodologies. We are considering a national education program on UR management for all medical facilities during Fiscal Year 1986.

-Require hospitals to staff their utilization review function with qualified people, including reviewers who have a medical background.

I concur, with exception. DM&S strongly supports and encourages medical facilities to assign personnel with good clinical background to review and collect resource utilization information from the medical charts and other pertinent data sources. It views registered nurses to be appropriate for this position. A UR coordinator should possess a working knowledge of the operations of both clinical and administrative services. A physician advisor is available for guidance and direction. The medical staff is responsible for developing and approving the criteria to be used in data collection. The UR Committee, consisting of clinical and administrative services, will evaluate the findings and make recommendations to the Clinical or Administrative Executive Boards. We support the development of a team of qualified people to carry out UR activities; however, we depend on medical center officials to appoint qualified people to perform these tasks.

Require hospitals to conduct all three types of review—concurrent, retrospective, and focused—as part of their utilization review program. Concurrent review should be conducted shortly after a patient's admission and periodically throughout the patient's stay. Retrospective reviews should be conducted after patients have been discharged so that the hospital can ensure whether such patient management practices as preadmission testing and discharge planning were carried out. Focused reviews should be conducted either concurrently or retrospectively.

Although I recognize the importance of the three types of reviews stated, I do not concur in this recommendation. JCAH requires concurrent review in their UR standard, when indicated. DM&S contends that each medical facility should decide when and to what degree these various reviews should be performed. The Health System Review Organization (HSRO) manual will address the use of all three types of reviews but will allow the medical facility to decide which will be performed.

-Include criteria on the key elements of utilization review in the Standards, Criteria, Evaluative Algorithms, and Measuring Instruments. The Systematic External Review Program (SERP) teams should use the criteria when evaluating each hospital's utilization review program.

I concur. A Standards, Criteria, Evaluation Algorithms and Measuring Instruments (SCEM) is being developed for the HSRO program to replace the existing HSRO survey worksheet used by the SERP team leader. The SCEM, expected to be completed by the fourth quarter of Fiscal Year 1985, will include a specific section on UR's.

—Increase the scope of the Systematic External Review Program by including evaluations of a random sample of patient case files at each hospital. These evaluations would help measure the effectiveness of hospitals' efforts to minimize lengths of stay and would also help measure the effectiveness of hospitals' utilization review programs. To identify potential length of stay problems, the external review team can use reports and data such as those described above.

I do not concur in this recommendation. Physician surveyors review medical records to assess the quality and appropriateness of patient care through the evaluation of diagnosis and treatment, etc., and may observe a questionable length of stay. Time constraints preclude the review of a sufficient number of records to make this a viable method of addressing length of stay issues. We have placed increased emphasis on a more detailed review of UR plans. This includes the review of data collected and analyzed by the facility, committee monitoring activities, problems identified, and plans for corrective and follow-up action. We believe this is a more practical approach to addressing UR issues.

The following general comments are offered to improve portions of the report which appear to be misleading or inaccurate.

- a. The problem of inadequate available alternatives to hospital care remains a major, universal issue that needs to be addressed. Unless it can be demonstrated that alternate treatment facilities actually existed and could have accommodated patients, it does not seem reasonable for GAO to conclude that patients are hospitalized inappropriately. It is likely that such patients would require similar resources to provide necessary care regardless of the formal label of the program in which they are placed. Therefore, there may be little or no net savings by redefining bed units or outplacing some categories of patients. If such patients were not considered in determining the percentage of inappropriately hospitalized VA patients, the percent would be estimated as 20 instead of 43 as stated by GAO.
- b. In many cases, preadmission testing or ambulatory treatment to prevent hospitalization may be limited because of the distance of the medical center from some patients' homes or because of the patients' poor home situations. Longer periods of hospitalization are sometimes necessary because of the same reasons as well as the patients' advanced state of disease or multiple diseases, advanced age, and/or debility.

c. The GAO study concludes that only about seven percent of VA patients sampled could have been treated without hospitalization. Moreover, the GAO findings suggest that complicated eligibility rules contribute to inappropriate admission. Only about six percent of VA patients in their sample could have had preadmission diagnostic tests and procedures performed while only about four percent of their sample were found to have spent extra days in the hospital solely as a result of problems with diagnostic practices. About 20 percent of VA patients sampled could have been discharged earlier according to the GAO study. Although actions to minimize such occurrences obviously are worthwhile, the percentages cited above seem rather small.

d. Page 20: GAO states that an analysis of long term planning methods such as bed sizing model and Medical District Initiated Planning Process (MEDIPP) is outside the scope of this report. Yet, in the introduction to the report, pages 3 through 6, the projections of future needs made by both the VA and the Congressional Budget Office are discussed with the implication that the VA projected needs could be reduced by implementing the recommendations of this report.

GAO does not recognize that the VA's future projections have already assumed that these efficiencies would be effected during the balance of this decade and that the VA, through application of its bed sizing model, has reduced future projections accordingly. This is done by adjusting VA's future acute bed requirements to reflect community length of stay standards, and discounting patients improperly assigned to hospital beds in computing VA's overall hospital beds in the future. Therefore, it is of great concern that GAO is suggesting that its recommendations will further decrease projected future needs. The adjustments have already been made in VA's planning projections.

- e. Page 5: The Director of Program Analysis and Development is quoted in the report as saying that while the average length of stay has declined, the VA believes that the trend has "bottomed out." This statement refers to a bottoming out expected by 1990, and not between now and 1990. In the report Caring For The Older Veteran it was assumed that the decline in lengths of stay would bottom out by 1990. All VA planning has assumed a continual decline in length of stay between now and 1990. Therefore, the effects of the improvements GAO is recommending on length of stay have already been taken into account through the bed sizing model and MEDIPP planning, and Resource Allocation Methodology.
- f. Data between 1982, the year GAO did its analysis of medical files, and 1984 clearly indicate the progress VA is making in reducing length of stay. For example, in acute medicine there was an 11 percent decrease in length of stay over that period of time and an 8 percent decrease in surgical length of stay. This suggests that many of the improvements recommended by GAO are already being accomplished.
- g. Since much progress has been made in reducing length of stay in acute care, it is possible that a large part of the remaining problem is caused by inadequate available alternatives to hospital care. When reviewing 350 medical files of patients discharged during Fiscal Year 1982, GAO found that well over half

APPENDIX III APPENDIX III

of medically avoidable days were attributable to the unavailability of alternate levels of care. However, later when GAO's Chief Medical Advisor evaluated nearly 800 patients during ward rounds, he found that about 31 percent did not require acute care. This finding is based on the assumption that more appropriate levels of care were available. This is a crucial and incorrect assumption. The VA's physicians involved pointed this out and GAO's own 1982 analysis makes clear that the availability of alternative levels of care is a major factor in reducing hospital stays.

- h. Legislative requirements contribute to inappropriate hospital stays in selected instances. Admission to some more appropriate levels of care currently require VA hospitalization first. We believe that pending legislation (H.R. 505) can facilitate appropriate placement by eliminating barriers for admission to alternative levels of care.
- i. Page 45, Paragraph 1: DM&S is in the process of updating the HSRO policy manual (M-6). This manual, expected to be issued during Fiscal Year 1986, will include specific requirements for UR activities and will address the major aspects of the HSRO program, maintaining some flexibility for the field. In a recent newsletter, the Office of Quality Assurance sent information to the field concerning UR management. This will serve as interim guidance until the changes in M-6 are finalized and approved. We view UR as an integral part of the Quality Assurance program at medical facilities and are addressing UR requirements through the HSRO program manual and UR deficiencies by the SERP survey, through the use of a criteria-based HSRO program SCEM that is being developed.
- j. Page 46: The report states that the SERP reports often did not address the need for better patient management practices to reduce length of stay. SERP reports are internal documents providing medical center management and Central Office program officials sufficient, detailed information on the efficiency of medical services provided. Because SERP reports are intended for informed officials who understand the terminology, it is unnecessary for SERP reports to be excessively detailed. However, all deficiencies that impact on patient care or resource utilization are cited in SERP reports.
- k. Page 56: In defining the major VA health care programs, GAO discusses the Residential Care Program. This program is now called the Community Residential Care Program (CRCP).
- l. I suggest that Adult Day Health Care be defined as follows instead of the way it is presented on pages 56 and 57:
 - "Adult Day Health Care provides health care services to veterans in a congregate setting, during normal working hours, and includes medical, nursing, rehabilitative, social, recreational, and educational services. The provision of these services enables veterans to be maintained at home in a supportive environment rather than be institutionalized in a nursing home or hospital."

m. On pages 57-58, GAO appears to equate minimum or self-care in a hospital with the Community Residential Care Program. It may be worthwhile to state that patients who are considered minimum or self-care patients must have valid reasons for being hospitalized; otherwise they would be in a Community Residential Care Program.

(401934)

.

AN EQUAL OPPORTUNITY EMPLOYER

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

OFFICAL BUSINESS
PENALTY FOR PRIVATE USE \$300

BULK RATE
POSTAGE & FEES PAID
GAO
PERMIT No. G100