

GAO

Report to the Chairman, Committee on
Veterans' Affairs, House of
Representatives

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VA HEALTH CARE

VA Is Adopting Managed Care Practices to Better Manage Physician Resources



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

B-270579

July 17, 1997

The Honorable Bob Stump
Chairman, Committee on Veterans' Affairs
House of Representatives

Dear Mr. Chairman:

The Department of Veterans Affairs (VA) is one of the nation's largest employers of physicians. In fiscal year 1996, VA's Veterans Health Administration (VHA), one of the nation's largest direct health care delivery systems, operated 173 hospitals, 398 outpatient clinics, 133 nursing home units, and 40 domiciliaries.¹ That same year, VA spent \$1.7 billion in salaries and benefits for 10,102 full-time-equivalent (FTE) physicians—actually, more than 14,000 part- and full-time physicians²—to provide medical care to almost 3 million patients, or approximately 10 percent of all veterans.

In light of the pressures on the health care industry in general and on VA in particular to achieve greater efficiencies as they operate within ever-tighter budgetary constraints, you asked that we provide information on what VA is doing to manage its physician resources as well as how health maintenance organizations (HMO) manage their physician resources.

To obtain this information, we reviewed VA policies and procedures, interviewed officials at both VA and selected HMOs, and extensively reviewed the existing literature. We also visited four VA medical centers—at Houston, Texas; San Francisco, California; Spokane, Washington; and Togus, Maine. These medical centers represented a mixture of size; mission; cost per patient treated; and level of affiliation with medical schools—that is, the size of the patient case workload, the number of residents in training, and the amount of research conducted jointly with medical schools. These facilities are not, however, statistically representative of all VA medical centers. During our site visits, we interviewed a random sample of physicians and examined all relevant records, including personnel and performance records for these physicians, to determine how policies and procedures were applied. We also interviewed officials at medical schools affiliated with VA medical

¹Domiciliaries provide shelter, food, and necessary medical care on an ambulatory basis to veterans who are disabled by age or disease but not in need of skilled nursing care or hospitalization.

²These figures do not include physicians hired on a fee or contract basis, medical residents, or fellows.

centers and other health care experts. (See app. I for more detail on our scope and methodology.)

Results in Brief

VA is in the midst of making fundamental changes in its health care delivery system because of budgetary pressures and increasing competition in the health care industry. Many of these initiatives are affecting the entire VA health care delivery system; they will also affect how VA manages physician resources, including identifying the appropriate number and skill mix of physicians and monitoring productivity and quality of care provided. These initiatives involve changes in physician practice patterns and in resource allocation to help ensure effectiveness and efficiency.

VA is changing physician monitoring by emphasizing standardized productivity and clinical care outcome measures, which are increasingly being used in the private sector to monitor the efficiency and effectiveness of physician performance.³ In addition, further embracing private sector managed care practices, VA is changing the way physicians practice by assigning veterans to a primary care physician, an approach that emphasizes continuity of care, prevention, and the early diagnosis of disease and allows VA to better attribute clinical care outcomes to specific provider performance. VA expects to change physician practice patterns and improve service delivery efficiencies by distributing health care funding on the basis of workload rather than according to historic funding patterns, which perpetuated imbalances in funding, efficiency, and access to care throughout the VA health care system. VA has introduced a capitated, patient-based resource allocation system using 22 regional networks as the basic allocation unit rather than individual medical facilities, which will result in resource shifts among the networks and physician staffing reductions in some areas of the country.

VA has not developed a staffing and resource allocation model that identifies optimal physician staffing levels or the skill mix of physicians needed to provide health care to eligible veterans, and no agreed-upon physician workload standards exist either in the private sector or at VA for most physician specialties, including primary care.

VA faces unique challenges in managing its physician resources. It must balance multiple congressionally mandated missions, such as training

³Standardized performance measures include productivity indicators, such as the number of specific procedures performed, and clinical care outcome indicators, such as level of customer satisfaction and mortality rates.

health care professionals, that reduce physicians' clinical care productivity relative to that of physicians in private sector HMOs. In addition, VA performance measurement and allocation systems are hampered by incomplete and inaccurate data. For example, physician-specific information is not generally available on cost and utilization. Although VA is implementing a new cost-based data system, the system will not be fully operational until fiscal year 1998.

Moreover, accurate estimates of workload, an essential element of resource allocation, are particularly challenging with a patient population that is sicker and older than the general population and that moves in and out of the VA health care system. While HMO patients generally obtain most or all of their medical care from the HMO, more than half of VA patients receive part of their care from non-VA providers. To the extent that veterans reserve VA for their more costly health care, the success of VA's physicians in using primary care for prevention and early diagnosis of disease—key predictors of clinical care outcomes—may be hampered. Finally, physician productivity is undermined by insufficient clinical space and support staff as VA makes the transition to providing primary care on an outpatient basis.

Background

In 1930, the Congress established VA, including a system for providing for the rehabilitation and continuing care of veterans injured during wartime service. Over the past 65 years, the Congress has expanded VA's health care mission beyond direct care for service-connected injuries to include complete medical care for veterans. In the 1940s and '50s, the Congress added medical education and research missions. The purpose of the medical education mission was to strengthen the quality of care in VA facilities and to help train the nation's health care professionals. To contribute to the nation's knowledge about disease and disability, the Secretary of VA is now legislatively required to carry out a program of medical research in connection with the provision of medical care and treatment of veterans.⁴

Many VA medical centers have affiliated with medical schools since 1946, and today almost 80 percent of VA medical centers are affiliated with one or more medical schools. Approximately 70 percent of all physicians employed by VA hold faculty appointments at these medical schools, and many hold part-time positions at both VA and the affiliated medical

⁴In 1982, the Congress added another role for VA by authorizing it to serve as the primary health care backup to the Department of Defense in the event of war or national emergency.

schools. These affiliations are intended to aid in the recruitment of highly qualified staff to provide VA patient care and to meet VA's education and research goals. VA, in return, provides clinical experience at its medical centers for over 100,000 health profession students from more than 1,000 educational institutions every year. Of these 100,000 students, more than 32,000 are medical residents and about 20,000 are medical students.

VA employs physicians under title 38 of the U.S. Code on both full- and part-time bases. For those physician services for which demand or the salary VA is able to offer is insufficient to employ a physician directly, VA contracts for physician services, often with a doctor associated with an affiliated medical school.⁵ In fiscal year 1993, the latest year for which data are available on FTE employees for contract and fee-based physician services, VHA obtained physician services equivalent to the services of about 19,400 full-time physicians, either directly, as VHA employees, or through contracts and residencies.⁶

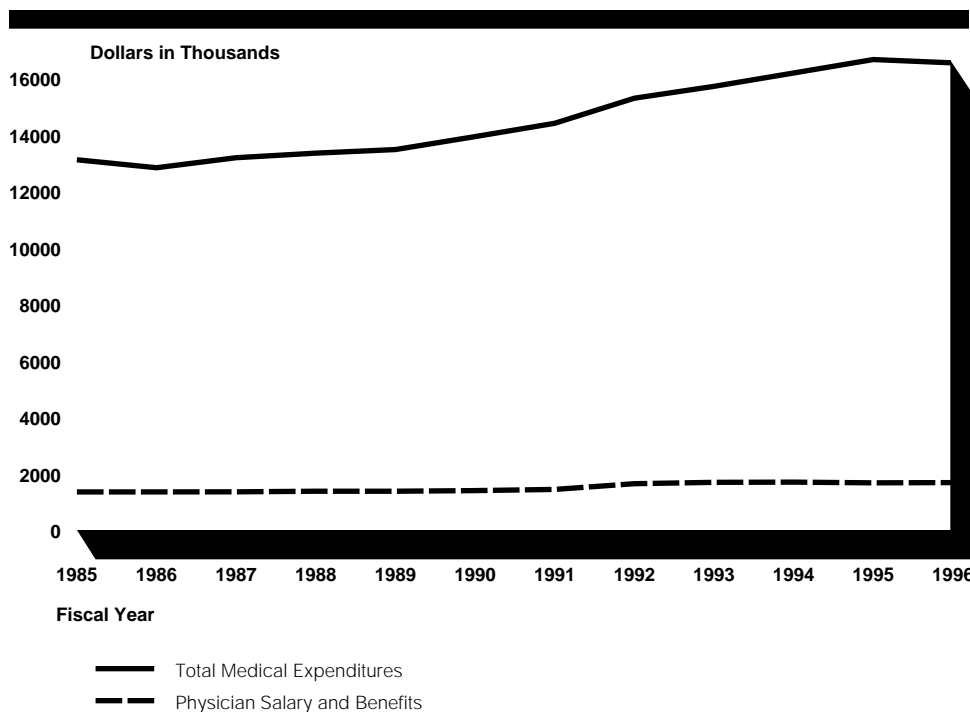
Physician salaries and benefits have consumed approximately 10 percent of VHA's total medical care expenditures since 1985, as shown in figure 1. In fiscal year 1996, VHA spent \$16.6 billion on medical care,⁷ 26 percent more than in fiscal year 1985 after adjusting for inflation, while VA physician salaries and benefits rose 25 percent over the same period.

⁵These services are acquired on either an hourly or a procedural basis.

⁶Residents are physicians who have completed medical school and are enrolled in a postgraduate medical education program leading to qualification in a medical specialty or subspecialty.

⁷Congressional authorizations for fiscal years 1997 and 1998 cap increases at 4.14 and 3.77 percent.

Figure 1: VA Medical Expenditures, Fiscal Years 1985-96



Under the Veterans’ Health Care Eligibility Reform Act of 1996, all veterans are eligible to receive comprehensive VA medical care.⁸ However, veterans’ actual receipt of such care depends on a complex priority system based on the nature of their military service, level of disability, and income, as resources permit.⁹

VA Is Changing How It Manages Physician Resources

VA is making fundamental changes in how it manages physician resources as it adopts private sector methods to ensure the efficiency and effectiveness of its physician workforce. VA, like HMOs, is developing standardized productivity and clinical care outcome measures to monitor physician performance. It is also changing the way physicians practice by moving from providing episodic, specialized care to a patient-based primary care model, long embraced by HMOs. Furthermore, VA is implementing a capitated, patient-based resource allocation system to

⁸Such medical care is discretionary to the extent that the Congress must pass an annual appropriation for VHA to expend funds.

⁹The Veterans’ Health Care Eligibility Reform Act of 1996, P. L. 104-262, which became law on Oct. 9, 1996, eliminates distinctions in eligibility criteria based on inpatient and outpatient care.

provide physicians and others with incentives for providing the most efficient and effective care. Finally, VA has not developed a staffing and resource allocation model that identifies the optimal physician staffing levels, and no agreed-upon physician workload standards exist—including for primary care—either at VA or in the private sector.

VA, Like HMOs, Is Developing Standardized Measures to Monitor Physician Performance

Both HMOs and VA are increasingly emphasizing the use of performance measures, such as productivity and clinical outcomes, to manage physician resources. Productivity measures, for example, count the number of specific procedures performed or patients treated, while clinical care outcome measures reflect the results of care, such as level of customer satisfaction or readmission and mortality rates. HMO officials told us that increased price competition has forced them to focus on physician productivity in a new way. VA officials cited budgetary pressures; hiring restrictions; the deliberations of the President's 1993 health care reform task force, which included comprehensive assessment of VHA's role in the delivery of the nation's health care; and increasing competition in the health care industry as incentives for innovation in this area.

VA and HMO officials told us that because monitoring individual physician productivity is a new issue for health care providers, few historical data or standards are available to identify acceptable productivity levels and to set standards for appropriate physician staffing. For many years, physicians have predominantly practiced in independent or small group fee-for-service practices. Physicians' individual productivity has been reflected primarily in their personal income, and data have not generally been collected on their individual productivity. Officials that we interviewed at the staff model HMOs—HMOs that employ their own physicians to provide health care to enrollees—also stated that physicians have generally not been accountable for productivity to others within their organizations. VA officials reported that they have historically emphasized holding physicians accountable for working their minimum hours of work rather than for their individual or collective performance.

VHA's 1996 publication, Prescription for Change, identifies development of a monitoring system that tracks performance and provides timely feedback to health care providers as necessary to VHA's goal of improving its effectiveness and efficiency.¹⁰ Standardization within VA will permit it to compare the performance of its facilities and regions. VA's plans echo HMO

¹⁰Kenneth W. Kizer, M.D., M.P.H., Under Secretary for Health, VA, Prescription for Change: The Guiding Principles and Strategic Objectives Underlying the Transformation of the Veterans Healthcare System (Washington, D.C.: VA, Mar. 1966).

officials' desire to emphasize performance measures that allow comparison with other national and local private sector measures. VA is also designing performance measures to allow comparison with current trends in performance evaluation supported by the Joint Commission on Accreditation of Healthcare Organizations.

The VA Under Secretary for Health has overall responsibility for monitoring physicians in VHA. VA medical center directors are responsible for monitoring physicians at the medical center level, which includes ensuring accurate time and attendance reporting. In practice, directors typically depend on the clinical service chiefs—the heads of the different specialty “departments”—to monitor physician attendance and to ensure that time cards are accurate. Service chiefs may do this themselves or they may delegate these duties to the chiefs of the services' different clinical sections.

Service chiefs told us that they were placing less emphasis on such management tools as monitoring physicians' time and attendance and emphasizing instead physicians' productivity and accomplishments during their work hours, including the outcome of the care provided. Service chiefs in all four medical centers we visited were individually creating or adapting automated performance monitoring systems because no central VA databases provided them with the information they needed. Without standardized systemwide data, service chiefs had begun individually collecting and analyzing physician-specific productivity data, such as the number of procedures performed, number of patients seen, and length of time patients had to wait for an appointment. The service chiefs generally saw their individual efforts as temporary. They were enthusiastic about VA's implementation of a new systemwide cost-based data collection system to provide both individually tailored and systemwide data on physician-specific performance.

Service chiefs were using the information they collected in multiple ways. A service chief at one medical center reported using productivity comparisons to convince the medical center leadership council of the need to move physicians from other services, or specialty areas, into his service. He also planned to use the data to encourage competition among primary care teams and to identify efficient and effective practice patterns. Many of the service chiefs we interviewed had used productivity data to identify and document physician performance problems. They provided individual physicians within their service with data on how their performance compared with that of others to encourage improved

performance. At all four medical centers we visited, management was using productivity data in personnel actions involving individual doctors.

Many service chiefs expressed frustration about their inability to identify appropriate local and national data to use as benchmarks. They had to identify benchmarks by directly contacting their counterparts in private sector organizations or by using prior experience in university or private sector hospitals for comparison purposes.

Both VA and HMO officials emphasized that productivity has to be combined with analysis of clinical outcomes to ensure the usefulness of performance measures. Service chiefs and HMO officials we interviewed were still in the process of defining and measuring productivity and had not yet developed a system to tie clinical outcomes to performance.

VA Is Shifting Its Focus From Specialty to Primary Care

Embracing managed care practices used in the private sector, VA is also changing how its physicians practice medicine, emphasizing patient-centered primary care rather than episode-specific specialty care. HMOs have long been committed to the concept of primary care, which focuses on the patient and emphasizes preventing illness and diagnosing the early onset of disease. VA, on the other hand, has historically emphasized injury- or illness-specific medical care provided by one or more specialists who treat the patient only for the condition within their specialty.

VA has now directed that the majority of its patients be assigned to a primary care physician who is responsible for coordinating all aspects of the patient's care, whether on an outpatient or inpatient basis. To ensure continuity of care, the patient returns to the primary care physician after any specialist care has been completed. Assigning veterans to the care of individual physicians allows VA to better attribute clinical care outcomes to specific provider performance because one physician has greater responsibility and control over the patient's care.¹¹ As of February 1997, VA reported that 53 percent of its patients had been assigned a primary care provider. This represents 72 percent of all the patients VA has specifically targeted for primary care: those who have had two or more clinic visits within the past year.

¹¹In 1993, we reported that assigning patients to primary care providers decreased unnecessary visits. See VA Health Care: Restructuring Ambulatory Care System Would Improve Services to Veterans (GAO/HRD-94-4, Oct. 15, 1993).

VA Struggles to Provide Primary Care With Oversupply of Specialists

VA is attempting to provide primary care with a physician workforce that is predominantly specialist. Overall, about one-quarter of VA's physicians are primary care physicians, and about three-quarters are specialists; more than half of managed care plans' physicians are typically primary care physicians.

The four medical centers we visited were using different methods of restructuring their physician groups to provide primary care using the specialist physicians currently on staff. For example, the chief of the medical service at one large facility had organized physicians into two multispecialty group practices, while at a smaller facility physicians were divided into four teams. At the large facility, each clinic had a group of staff physicians representing key specialties: one cardiologist, one renal specialist, one pulmonologist, and one ophthalmologist working side by side. Each specialist was assigned the primary care of patients whose major problem lay within his or her area of expertise. The specialist assumed responsibility for coordinating the total care of the patient, on both inpatient and outpatient bases. The multispecialty group setting provided the physician easy access to a variety of other specialists for informal consultation. The consulting specialist set up a separate appointment with the patient only when he or she believed the case warranted special treatment. The chief described the efficiencies in the following way:

"In the past, we had a cardiology, renal, and pulmonary clinic, each of which was extremely narrowly focused. All the specialists paid attention only to the problems the patient had that were in their area of expertise. For example, if you were a cardiologist you took care of only the heart. If [patients] also had diabetes you referred them to the diabetes clinic for that. These patients were scattered all over the hospital with multiple providers working without any communication among them, often providing redundant or conflicting care . . . [Now patients have] one-stop shopping."

In the smaller facility, 11 of the 13 physicians in the medical service were divided into three teams, and psychiatrists made up the fourth. Two physicians, an oncologist and a gastroenterologist, remained outside the three medical teams, practicing exclusively in their area of specialization. None of the physicians had a training focus specifically in primary care areas, such as internal medicine, gerontology, or family medicine.

Service chiefs at the medical centers we visited told us that they planned to use clinical practice guidelines in assisting the specialists' transition to primary care. VA required its regions to adopt a minimum of five nationally

developed clinical practice guidelines by the end of fiscal year 1996 to manage resource-intensive chronic diseases, such as major depressive disorder and ischemic heart disease. Clinical practice guidelines are systematically developed statements that assist practitioners in making decisions about appropriate health care for specific clinical conditions.¹²

Another means of changing the physician skill mix is to eliminate specialist positions. In March of 1996, VA gave facility management authority for the first time to reduce title 38 physician staffing levels through terminations without central office approval and without offering the physicians the opportunity to move elsewhere in the system. Some of the service chiefs told us that they anticipated using this authority to eliminate excess specialist positions, and officials at one of the regions identified specific specialist positions they planned to eliminate through the new procedure.

VA Is Attempting to Increase Physician Efficiency Through Changing the Way It Allocates Funding

VA expects to change physician practice patterns and improve service delivery efficiencies by distributing health care funding on the basis of workload rather than using historic funding patterns. VA is implementing a capitated patient-based resource allocation system designed to increase incentives for physicians and others to provide the most efficient and effective care. Changes in the allocation of VA's health care budget will have an impact on the distribution of physician resources.

In spite of previous attempts to link funding to the work performed and the cost to perform it, VA's distribution of resources has remained almost exclusively related to the amount that each facility received in the past.¹³ The Resource Allocation Methodology (RAM) system, begun in 1985, was discontinued in 1989 because of concerns that it provided facilities with inappropriate incentives to expand workload beyond resource constraints.¹⁴ The Resource Planning and Management (RPM) system, begun in 1994, defined workload as patients served rather than procedures performed and was, therefore, less susceptible to attempts to gain resources through inappropriate performance or recording of workload. The RPM system did not, however, encourage cooperation among facilities.

¹²For information on how managed care plans use practice guidelines, see Practice Guidelines: Managed Care Plans Customize Guidelines to Meet Local Interests (GAO/HEHS-96-95, May 30, 1996).

¹³See Veterans' Health Care: Facilities' Resource Allocations Could Be More Equitable (GAO/HEHS-96-48, Feb. 7, 1996) and VA Health Care: Resource Allocation Methodology Has Little Impact on Medical Centers' Budgets (GAO/HRD-89-93, Aug. 18, 1989).

¹⁴For example, under RAM, a facility could get more workload credit for hospitalizing a patient than if the same care was provided on an outpatient basis.

In addition, VHA officials told us the RAM and RPM systems were too complex, requiring so many computer algorithms that few VHA officials understood how the allocation systems worked. The RPM system was used to make only minimal changes to facility budgets, on average less than 1 percent.

In order to encourage decisions affecting the delivery of patient care services to be based on collaboration among VA facilities rather than on the interests of the individual facility, VA decided to distribute funds on a regional rather than a medical facility basis. By June 1996, VA had incorporated its 159 independent medical centers into 22 veterans integrated service networks (VISN) that report directly to the Office of the Under Secretary for Health.¹⁵ These networks are designed to replace the individual facilities as both the basic planning and budgetary units. According to the Under Secretary for Health:

“The hospital will remain an important, albeit less central, component of a larger, more coordinated community-based network of care The basic concept of an integrated health care organization is that it is one that will be accountable for providing a coordinated range of physician, hospital, and other medical care services for a defined population, and generally for a fixed amount. The assumption is that it will be easier and more efficient to provide for all the needs of the population if all the pieces of the health care system needed to provide the care are integrated into, and under the control of, a single entity Under the VISN model, health care will be provided through strategic alliances among VA medical centers, clinics and other sites; contractual arrangements with private providers; sharing agreements with other government providers; and other such relationships.”¹⁶

This restructuring was also intended to change the relationship between the central office and the regions. In recognition of regional differences in practice patterns, patient characteristics, and geography, VA is moving more of the daily operational decisions and oversight to networks, leaving the central office to focus more on policy development and leadership. Each network will determine how funds are distributed to the medical facilities within its geographic region. Individual business plans drafted by the 22 networks propose a wide variety of distribution strategies.

¹⁵Until this reorganization, all 173 VA hospitals and most outpatient clinics, nursing homes, and domiciliaries were part of one of the 159 medical centers. Facilities within the medical centers may have been spread over a wide geographic area, but they were still managed by the medical center director.

¹⁶See Kenneth W. Kizer, M.D., M.P.H., Under Secretary for Health, VA, Vision for Change: A Plan to Restructure the Veterans Health Administration (Washington, D.C.: VA, Mar. 1995).

Although the networks were not fully operational until June 1996, during our May 1996 visit to one small medical center, we were told about a strategic alliance between medical centers in that network that was intended to increase efficient and effective use of physician resources. This network covers an unusually large and geographically rugged area with harsh winters, which prevents travel among some of its medical facilities, except by air. The network had initiated a pilot program to test the feasibility of flying a cardiologist from a large medical center to a small medical center to provide pre- and postoperative care for patients needing heart surgery, which was not available at the smaller facility. Importing a cardiologist eliminated the need for VA to fly veterans back and forth several times for preoperative consultation and follow-up care. As a result, VA officials saw potential cost savings, increased physician productivity at the smaller medical center by eliminating administrative tasks associated with moving sick veterans, and improved quality of care. Allocating resources to the network rather than to the individual medical facilities provides incentive for changes of this nature.

In April 1997, VA began implementing a capitated, patient-based resource allocation process, the Veterans Equitable Resource Allocation system for distributing funds to the networks. Capitation is a risk-sharing reimbursement method used in the private sector whereby providers in a plan's network receive fixed periodic payments for health services provided to plan members. Capitated fees are set by contract between prepaid managed care plans (typically HMOs) and providers to be paid on a per-person basis, usually with adjustments for age, sex, and family size, regardless of the amount of services provided or costs incurred.

Under the new allocation system, each network will be able to allocate funds to its facilities as it deems appropriate, which is expected to result in physician staffing reductions in some areas of the country. Moreover, in anticipation of potential funding reductions, some networks have already begun to reduce their physician workforce by eliminating part-time and temporary physicians, voluntary separations, and terminating some full-time physicians. These networks expect still further reductions within the next few years.

VA Has Not Developed a Way to Identify Optimal Physician Staffing Levels

VA has not developed a staffing and resource allocation model that identifies optimal physician staffing levels or the skill mix of physicians needed to provide health care to eligible veterans, and no agreed-upon physician workload standards exist within either the private sector or VA

for most physician specialties, including primary care. VA and the staff model HMOs we visited are struggling to determine suitable physician staffing levels and to distribute their physician resources efficiently, effectively, and equitably given the diversity of health care facility missions, patients, and community resources. HMO officials reported that they had not yet successfully identified a method for staffing physicians but did not believe that a purely quantitative approach was appropriate. Officials of accreditation bodies stated that physician workload standards were not used because there were none that were appropriate for the variety of medical care providers and settings.

In 1987, VA contracted with the Institute of Medicine (IOM), an arm of the National Academy of Sciences, to create a mathematical/statistical model to estimate the appropriate physician staffing levels for individual VA medical centers. VA officials told us that they did not adopt the IOM model, published in 1991, because it was too complicated for physicians and managers to understand. In addition, they did not trust the reliability of the data the model required.¹⁷ IOM noted that VA had published staffing guidelines for most nonphysician health care provider categories. IOM acknowledged, however, that complexities such as clinical, economic, statistical, administrative, and political issues prevented VA from establishing similar guidelines for physicians.

VA Faces Unique Challenges in Managing Physician Resources

As it moves toward managed care, VA differs from private sector managed care organizations in ways that present unique challenges—particularly in managing physician resources. First, managing physician workload is complicated by the need to balance VA's primary patient care mission with its education and research missions. In addition, automated performance management and resource allocation systems that could assist in managing the physician workload lack complete and accurate data. Third, providing health care to an older and sicker patient population that moves in and out of the system complicates estimation of physician workload. Finally, VA physician productivity is undermined by insufficient support staff and clinical space.

The changes VA is making may improve the efficiency of VA physicians, but they may also, in the short term, increase the total workload. One VA medical center service chief noted the following:

¹⁷The VA Inspector General reported in September 1995 that VA medical centers still do not have a physician staffing methodology that would help them determine the number and type of physician resources needed. See VA Inspector General, *Audit of VHA Resource Allocation Issues: Physician Staffing Levels*, 5R8-A19-113 (Washington, D.C.: VA, Sept. 29, 1995).

“There are efficiencies in these changes, particularly to the extent that primary care physicians can reduce the number of clinic visits required for individual patients and to the extent that expanded outpatient services can more efficiently provide care that was previously administered on the hospital wards. It is not at all clear, however, that workload will decrease because VA will now provide a service, comprehensive care, that was previously not available to most veterans. Moreover, to the extent that this service attracts more veterans to VA, efficiencies in the care of individual patients will be offset by a rise in the total number of patients. Also, patients who currently receive part of their care outside VA, about 40 percent of veterans who come to VA, may increase their care at VA, especially as charges elsewhere rise.”

VA Faces Difficulty Balancing Multiple Missions

Unlike HMOs, VA faces the difficult task of balancing its primary focus, providing clinical care, with its congressional mandate to contribute to the education of the nation’s health care practitioners and perform medical research. In particular, VA’s attempts to hold physicians accountable for productivity and to move specialists into primary care have raised concerns among VA physicians that their research and teaching activities may be compromised.

In Prescription for Change, VA’s Under Secretary for Health set forth 32 guiding principles for changing VA, including the idea that “education and research activities should be held accountable to, and managed with, performance expectations and outcome measures in the same manner as clinical care.”¹⁸ However, VA medical center officials told us that they are struggling with the specifics of how to accomplish this. Significantly more effort has been made by both the public and private sectors to measure productivity and outcomes for patient care than for teaching and research. One result is that VA medical centers and physicians who perform a significant amount of research or teaching may not compare favorably with the private sector on patient care productivity measures, such as number of patients seen or cost per patient.

Medical center officials told us that VA’s central office had established a guideline that a maximum of 25 percent of VA physician resources be devoted to research. Officials at the medical centers and networks, however, told us that they were uncertain as to how to interpret the guideline. As a result, they interpreted the guideline in different ways. For example, one of the two highly affiliated centers—that is, one of the centers with a large patient caseload, a large number of residents in training, and significant research activity—interpreted the guideline to

¹⁸Kizer, Prescription for Change, pp. 7-56.

mean 25 percent of physician resources overall, while the other applied the guideline to each individual physician.

Applying this guideline is further complicated by the difficulty of separating teaching and research activities from patient care. For example, at the two medical centers discussed, both service chiefs and individual physicians provided detailed information about their professional activities that demonstrated that the majority of the physicians' patient care time was spent with medical or other health care students. Many of the physicians involved in research reported a similar phenomenon. For example, as part of his participation in acquired immunodeficiency syndrome (AIDS) research, a specialist in infectious disease reported that most patient encounters were included as part of his participation in clinical trials undertaken for pharmaceutical companies or the National Institutes of Health. He was not able to estimate the extent to which research requirements reduced his clinical productivity. He did, however, assert that participation in the research allowed him to provide veterans infected with the human immunodeficiency virus (HIV) with the latest drugs, which were not yet available on the market. He estimated the drug savings alone at thousands of dollars per year, per patient.

The chief of the medical service at one affiliated medical center stated that:

“Our success in expanding outpatient services has come partly at the expense of our academic mission, particularly in the subspecialties . . . Medical service . . . has adopted the policy that faculty who commit a substantial portion of their time to research should be paid in part by VA and in part by grant support. This increases the direct clinical productivity per FTE employee, but it threatens the research mission . . . Some of our best physician-scientists, therefore, are leaving or actively looking elsewhere.”

Individual physicians reported that their primary care responsibilities and the increased emphasis on patient care productivity were limiting their ability to invest in the time-consuming process of obtaining research grants. Some physicians told us that concerns about cutbacks in research undermined their commitment to VA, because they had accepted lower salaries than those offered in the private sector for the unique opportunity to pursue both research and patient care. For example, one physician stated that he came to VA from Harvard Medical School so he could do research.

The chief of medicine of another medical center cited as a casualty of this emphasis the departure of a physician within the past year who had spent 5 years as a clinical investigator:

“In part because we are not able to provide him with a [full-time position], he is leaving to assume a position at . . . , taking with him not only his own expertise but also that of four junior faculty, all of whom are paid in full by their research support and all of whom have significant clinical duties. He also takes over half a million dollars in research support”

Service chiefs expressed the same concerns about maintaining their teaching mission. For example, a service chief at a highly affiliated facility reported that the service is no longer accepting medical students because of severe staff shortages.

While managing physician resources for multiple missions was not a key issue for the HMOs we visited, officials at the two affiliated medical schools we visited reported struggles similar to those reported by VA. School officials emphasized the increased price pressure from managed care as driving a new emphasis on physician productivity in all missions. In response to this pressure, one of the schools had developed an outcome-based system for managing physician resources that included both teaching and research, which it planned to market as the first of its kind.

VA Lacks Appropriate Data Necessary to Manage Physician Workload

VA’s automated performance measurement and resource allocation systems lack complete and accurate data. According to health care experts, comparing the costs of providing health care requires data that incorporate severity of illness and quality of care. In April 1995, we reported that VA management information systems were not able to produce reliable cost and utilization data.¹⁹ Without this type of data, VA cannot determine when to contract for services rather than provide them directly or set prices for services sold to other health plans that are adequate to recover its costs. Major improvements in both the quality of VA’s services and the efficiency with which they are provided depend on the ability of VA managers to obtain the right information at the right time. The medical director of one medical center we visited stated that:

“VA has experienced problems with its information system. The existing information system is good for the use of the past but it is not good for measuring productivity. For example, managers cannot know how productive a program or its employees are These data sets

¹⁹Barriers to VA Managed Care (GAO/HEHS-95-84R, Apr. 20, 1995).

can be produced separately from the system, but the two [number of procedures and physicians] cannot be merged for managers to use in measuring productivity.”

The chief of medical services at a medical center said that:

“VA does not capture a variety of procedures performed, such as cardiac catheterization, so I collect this information myself. VA does not capture this information in any significant way In the past, this procedural information was collected, recorded, and sent to be coded but many procedures were missed. Some of the data is incredibly inaccurate, such as inpatient procedures.”

VA is in the process of implementing a cost-based medical information system—the Decision Support System (DSS)—which is currently in use in the private sector. DSS has provided hospitals in the private sector with improved data on patterns of patient care and the cost of providing health care services. Such information is equivalent to data describing the clinical services that are billed to insurance companies in the private sector. However, we previously found that the VA service-specific and cost-related information that DSS requires to compute the service cost per patient was incomplete, inaccurate, or inconsistent.²⁰

DSS has the potential to provide VA with provider-specific clinical cost and productivity information not currently available on a systemwide basis. In using DSS to combine clinical and financial information from the billing and accounting systems, VA could, among other things, compare costs incurred for the services of different physicians and for surgery performed at different locations; evaluate patient outcomes; and perform analyses on ways to increase the quality of service, reduce costs, or appropriately price excess resources offered for sale. DSS can also facilitate a comparison of patient care with predefined health care standards.

The four medical centers we visited were in different phases of DSS implementation, from the planning phase to the data analysis phase. Although VA currently estimates that DSS will not be fully implemented until fiscal year 1998, one of the medical centers we visited had recently used the system to make a resource allocation decision. Using cost data, it had projected dollar savings from purchasing a piece of equipment rather than hiring an additional physician.

Service chiefs at the facilities we visited told us that successful implementation of DSS is essential for the appropriate management of

²⁰See VA Health Care Delivery: Top Management Leadership Critical to Success of Decision Support System (GAO/AIMD-95-182, Sept. 29, 1995).

physician resources. For example, the chief of psychiatry at one facility stated that:

“I would like to have the data system generate information more easily. For example, when I ask for a breakdown of all the night and weekend calls for ultrasound, [computerized tomography] and [magnetic resonance], the chief technician is counting cases and generating this information manually. This information is not generated automatically and [the task] is labor intensive because information is pulled from the [Decentralized Hospital Computer Program] system. DSS will provide this information.”

Another service chief stated that:

“The VA system created 20 years ago is not sufficient . . . now. Improvement to the data in the reporting system is in process, but it is slow. The implementation of DSS will be great; but it is going to take about 3 years to get it up and running. However, once this system is working, it will make a difference in getting reports.”

While DSS can provide data on patterns of care and patient outcomes as well as their resource and cost implications, the ultimate usefulness of the system will depend not on the software but on the completeness and accuracy of the data going into the system.

VA Patient Eligibility Rules and Patient Mix Create Difficulty in Estimating Physician Workload

Estimating workload is much more difficult in the VA system than in the private sector because eligibility for VA care is based on circumstances that may change, while a person’s eligibility under a private health insurance policy is secure for the duration of the policy. Eligibility for VA health care is determined by factors such as veterans’ income, the existence or degree of service-connected disability, and the availability of resources at individual VA facilities. As a result, a veteran may be eligible for care from a VA facility at one time but be denied care at another time because of a change in the veteran’s income, the veteran’s disability status, or the availability of resources in the geographic area where the veteran seeks care.

Under the new Veterans’ Health Care Eligibility Reform Act, all veterans have basic eligibility for comprehensive care. Veterans with service-connected disabilities rated at 50 percent or higher—approximately 465,000, or fewer than 2 percent of all veterans—are automatically eligible for a complete continuum of care. All veterans are eligible for treatment of service-connected illnesses and injuries. As of October 1, 1998, veterans with less than 50-percent

service-connected disability will be eligible for the full continuum of care only if enrolled in VA's health care delivery system. Veterans will be enrolled on the basis of the availability of resources and a complex priority system that considers level of disability, income, and the nature of military service.

Prior to the passage of the Veterans' Health Care Eligibility Reform Act, veterans' eligibility for comprehensive outpatient care—the focus of managed care—was more restrictive than for inpatient care. The new law eliminated the distinctions between inpatient and outpatient care while requiring VA to establish a patient enrollment system. Enrollment is permitted on the basis of legislative priorities up to the number of veterans VA can accommodate within authorized appropriations.

It is not clear how much VA's new enrollment system will clarify veterans' eligibility for care and, hence, facilitate estimating physicians' workload. Veterans' priority for enrollment can still change as level of disability and income change, and their eligibility can vary with changes in the definitions and diagnoses of service-connected disabilities. In addition, conditions may still be treated in isolation for those patients who do not enroll but who have service-connected conditions, a circumstance that could limit treatment effectiveness. VA officials told us that veterans who enroll in one network will be able to obtain care in all networks, but officials have yet to determine how they will shift resources to accommodate patient shifts among networks.

VA's new enrollment system will enable VA to more accurately track the veterans it serves. However, translating veterans served into estimates of physician workload will be complicated by the fact that many veterans receive a significant amount of their care at non-VA facilities. A 1992 VA survey of veterans showed that almost half the veterans who received care in VA facilities also received care elsewhere. Once in the VA system, veterans are generally offered a broader range of services with fewer limitations and less cost sharing than are available under other public or private health benefit programs. This suggests that out-of-pocket costs may influence veterans' decisions to use VA for health care services even when they have other options. The extent to which veterans continue to choose VA facilities for their care may be affected by changes in the economy or in the health care environment.

VA Has Insufficient Outpatient Clinic Space and Support Staff to Effectively Use Physician Resources

VA physician efficiency in providing primary and outpatient care is hampered by space and resource limitations. Although some VA hospitals are relatively new and some have been updated, many present structural barriers, such as inadequate clinic space, to the patient care changes VA is initiating. At the VA primary care clinics we visited, physicians expressed concern that limited space significantly reduced the number of patients they could see. Some of the clinics had only one examination room for each doctor, while managed care organizations require three to four rooms per physician. The physicians also expressed concern about the inadequate number of support staff, such as nurses, nursing assistants, and secretaries, who could provide valuable assistance in the areas of patient triage, patient preparation, and record retrieval. Without sufficient support staff, physicians must perform these tasks themselves, which limits their effectiveness and efficiency in providing care. Several of the service chiefs at the two highly affiliated medical centers we visited commented on this issue. One stated:

“Physician productivity is affected by the quality of the staff that supports the doctor. For example, VA has not always had the ability to hire well-qualified secretaries because of the limited pay. In addition, most doctors would be more efficient if they had more nurses to prepare patients in the clinic area. Many of the VA patients are disabled and need assistance to dress and undress and get to the examining room. The doctors end up assisting with that when there are not enough nurses.”

Another service chief commented:

“Waiting time in the outpatient service would improve if there were more support services, such as nurses, technicians, and medical clerks. Because of personnel shortages, physicians spend time doing tasks other than direct patient care, such as answering telephones An increase in support resources could reduce the turnaround time for laboratory and other tests.”

Another chief stated:

“I see the need for more support staff because physicians spend time pulling records while trying to see patients. There are not enough staff in medical administration service to help physicians get the information they need.”

Another key to effective use of primary care physician resources is overcoming barriers to patient access. VA lacks the outpatient primary care network common in private sector managed care plans that is needed to maximize the potential for primary care to increase physician efficiency

and effectiveness. VA does not provide veterans access to outpatient care that is comparable to the access they would have under other public or private health benefit programs. The geographic inaccessibility of VA facilities for many veterans may prevent them from seeking care or keeping clinic appointments before a medical crisis occurs. Frequently, veterans must travel long distances for outpatient care, while beneficiaries under other public and private programs generally have access to a broad range of providers within a few miles of their homes. Forty-four percent of veterans who use VA live more than 25 miles from the facilities providing acute medical and surgical care, and 32 percent live more than 25 miles from outpatient clinics that provide such services. Veterans' use of VA health care services declines significantly as distance between veterans and VA facilities increases.²¹

In February 1995, VA began encouraging its hospitals to consider establishing community-based outpatient clinics, which may be VA-operated clinics or VA-funded or -reimbursed private clinics. VHA established a general goal of providing access points within 30 minutes of veterans' residences.

All four medical centers we visited were taking additional steps to improve patients' access to physicians. For example, medical centers were assigning physicians to evening and weekend clinics, sending physicians in mobile clinics to treat veterans as far as 200 miles from VA medical centers, using physician assistants for telephone triage and consultation programs, and experimenting with telemedicine. One of the medical centers we visited was exploring the use of videoconferencing to enable medical center specialists such as psychiatrists to more easily reach patients at remote clinics. Another facility was using telemedicine to allow radiologists to read films from other clinics and medical facilities in their areas.

Conclusion

VA is in the midst of fundamental systemwide changes in both administration of funds and delivery of care that, when completed, will have the potential to improve the efficiency and effectiveness of VA's use of its physicians. Success will depend on VA's implementation of a resource allocation system that links resources to workload while recognizing regional and facility differences, such as geography and mission. Performance measures must reflect the full range of physician

²¹See VA Health Care: Improving Veterans' Access Poses Financial and Mission-Related Challenges (GAO/HEHS-97-7, Oct. 25, 1996).

activities and VA's service to a unique patient population. The resource allocation and performance measurement systems will require standardized and accurate data not currently available.

As VA adopts managed care practices like those of private sector HMOs, it must balance increased clinical productivity with quality of care. For example, the quality of primary care provided by physicians trained and experienced in other specialties must be closely monitored. Unlike HMOs, VA must also maintain equity of access and fulfill its congressionally mandated education and research missions. In addition, VA serves a population with different health care needs and access to care requirements that complicate VA's efforts to manage care and to use private sector HMOs as a model. Although VA's new allocation system will result in a shift of health care resources from one network to another, the distribution of resources within the networks will have the greatest impact on physician staffing levels. Refinement of VA data systems will be critical for all networks to determine the appropriate number and skill mix of physicians needed to deliver health care to eligible veterans.

Agency Comments and Our Evaluation

VA's Under Secretary for Health, the head of VHA, reviewed a draft of this report and said that it was generally a fair and balanced presentation of the issues influencing management of physician resources in both VA and private sector HMOs. In addition, he noted that the report accurately characterized the challenges VA faces as it attempts to satisfy congressionally mandated requirements while moving from a hospital-based specialty care system to a managed care system emphasizing primary, outpatient-based care.

The Under Secretary for Health also stated that we should include more specific descriptions of VA's specialist retraining programs and trends in private sector HMOs to address the ratio imbalance between primary care and specialist clinicians. Our report presents the views of medical center officials we met with during our review regarding their plans to address the imbalance between primary care and specialist clinicians in their locations. However, when we asked for more specific information regarding specialist retraining programs, VA provided only two other locations where such retraining had been initiated.

The Under Secretary also suggested that we consider including information on studies VA has under way on the trending and analysis of the results of treatment protocols using DSS cost and workload data. While

such a discussion would provide an indication of the specific type of information VA is developing, we believe that we have adequately discussed VA's efforts to implement DSS and the various potential uses of this information.

In addition, VA's Under Secretary offered technical comments on our draft report, which we incorporated as appropriate. The complete text of VA's comments appears in appendix II.

We are sending copies of this report to the appropriate congressional committees and other interested parties. We will also make copies available to others upon request.

This work was performed under the direction of George Poindexter, Assistant Director, who may be reached at (202) 512-7213 if you or your staff have questions concerning this report. Other major contributors include Leonard Hamilton, Lise Levie, and Janice Raynor.

Sincerely yours,

A handwritten signature in black ink that reads "Stephen P. Backhus". The signature is written in a cursive style with a large, prominent "S" at the beginning.

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

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Abbreviations

AIDS	acquired immunodeficiency syndrome
DSS	Decision Support System
FTE	full-time-equivalent
HIV	human immunodeficiency virus
HMO	health maintenance organization
IOM	Institute of Medicine
RAM	resource allocation methodology
RPM	resource planning and management
VA	Department of Veterans Affairs
VHA	Veterans Health Administration
VISN	veterans integrated service network

Scope and Methodology

To obtain information on what VA is doing to manage its physician resources, we interviewed VA central office and field officials and representatives of VA’s physician association, reviewed VA documentation on physician staffing, and conducted a literature search on this issue. We interviewed VA officials in the offices of the Under Secretary for Health, Academic Affiliations, Policy, Planning and Performance, Research and Development, and Patient Care Services as well as officials in the Seattle and Chicago offices of the Inspector General. We also interviewed VA staffing experts at the Boston Development Center and the Management Science Group in the Boston, Massachusetts, area. In addition, we discussed physician staffing issues with the staff at medical centers in San Francisco, California; Togus, Maine; Houston, Texas; and Spokane, Washington, along with the network officials associated with the selected medical centers’ networks. We selected these four medical centers on the bases of level of affiliation with a medical school and cost per patient treated.²² We also considered geographic diversity in making our selections. Table I.1 shows how the medical centers we selected met our criteria.

Table I.1: Selection Criteria for the Medical Centers We Visited

Level of affiliation	High cost per patient treated	Low cost per patient treated
High	San Francisco, California	Houston, Texas
Limited or none	Togus, Maine	Spokane, Washington

At the medical centers, we discussed with officials their methods of determining staffing needs and reallocating staff on the basis of those needs as well as their system to monitor physician performance and account for physicians’ time. We also looked at medical center personnel documentation on selected physicians. Our visits to these sites resulted in interviews with about 100 VA staff and private sector officials. But, because of the limited number of VA sites visited and the unique characteristics of each, we could not generalize their individual experiences to VA as a whole.

To determine what HMOs are doing to manage physician resources, we talked with officials of staff and group model HMOs,²³ officials at VA medical centers affiliated with medical schools, and experts on VA and private

²²These factors were identified and the medical centers categorized in Office of the Inspector General, VA, Audit of Veterans Health Administration Resource Allocation Issues: Physician Staffing Levels, report no. 5R8-A19-113 (Washington, D.C.: VA, Sept. 29, 1995).

²³Staff model HMOs employ their own physicians to provide health care to enrollees; group model HMOs contract with a group of physicians to provide health care services.

sector health care. We interviewed officials with the Group Health Cooperative of Puget Sound in Seattle, Washington; Harvard Pilgrim (formerly Harvard Community) in Boston, Massachusetts; and Unified Medical Group Association and MedPartners Mullikin in Long Beach, California. We also interviewed officials at the Baylor College of Medicine in Houston, Texas, and the University of California at San Francisco as well as health care experts at the Joint Commission on Accreditation of Healthcare Organizations in Chicago, Illinois.

In addition, we interviewed officials at the National Institutes of Health in Bethesda, Maryland, to better understand VA's research mission as it relates to the missions of patient care and teaching. We did our work between March 1996 and February 1997 in accordance with generally accepted government auditing standards.

Comments From the Department of Veterans Affairs



DEPARTMENT OF VETERANS AFFAIRS
Veterans Health Administration
Washington DC 20420

MAY 9 1997

In Reply Refer To: 10/105E

Mr. Stephen P. Backhus
Director, Veterans' Affairs
and Military Health Care Issues
United States
General Accounting Office
Washington, D. C. 20548

Dear Mr. Backhus:

We have reviewed your draft report, *VA HEALTH CARE: VA Adopts Managed Care Practices to Better Manage Physician Resources*, Report No. GAO/HEHS-97-87, and we find it to be a generally fair and balanced presentation of the issues influencing management of physician resources in both VA and private sector health maintenance organizations (HMOs). We are particularly pleased with your acknowledgment that neither VA nor the private sector has an empirical model for determining optimal physician staffing, and that such models are considered inadequate for managing physician resources, especially by the private sector. Your discussion of VA and HMOs' efforts to develop valid methods of measuring and monitoring physician performance to ensure quality of care, changes in practice patterns and behavior, and to facilitate resource allocation decisions is accurately presented and explains well the advantages of developing such measures over an empirical model.

Further, the report acknowledges how VA's multiple missions (especially in research and education), case mix, staffing mix and infrastructure make comparison with private sector productivity standards and outcome monitors difficult without extensive qualification. You also accurately characterize the challenges for VA as we attempt to continue to satisfy our congressionally mandated requirements while moving from a hospital based specialty care system to a managed care system emphasizing effective and efficient primary, outpatient based care that is geographically accessible to our users.

As part of the discussion of this transition, you note the imbalance of VA's primary care/specialist clinician ratio as compared to the private sector, and the potential difficulties for VA in utilizing specialists in providing primary care. We believe more specific descriptions of specialist retraining programs being used by VA to improve this ratio should be included in the report. In addition, discussion of the trend in some HMOs to move from the primary care gatekeeper

**Appendix II
Comments From the Department of
Veterans Affairs**

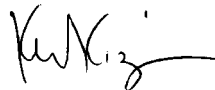
2. Mr. Stephen P. Backhus

model to the incentivized specialists model (which allows cost effective self-referral by patients) and an assessment of the potential for application of this model in VA to address the primary care/clinician specialist ratio, would be valuable. We believe you should also elaborate on the financial incentives used in the private sector to encourage cost efficiency and quality outcomes for their clinicians and how those may apply to VA salaried clinicians, given the precedent of specialty pay.

Your discussion of VA's need for reliable cost and utilization information systems addresses the critical nature of these systems to VA's success in making the transition to managed care. You may wish to consider including information on studies underway in VA on the trending and analysis of the results of treatment protocols using the Decision Support System cost and workload data by similar diagnoses for resources used by clinicians. This would provide the Committee on Veterans' Affairs, House of Representatives with an indication of the type of information VA is developing.

In addition to the above comments, enclosed are some technical comments on the draft report. Thank you for the opportunity to review the draft report. If you have any questions on our comments, please contact Paul C. Gibert, Director, Reports Review and Analysis Service (105E), Office of Policy, Planning and Performance, at 273.8355.

Sincerely,



Kenneth W. Kizer, M.D., M.P.H.
Under Secretary for Health

Enclosure

Related GAO Products

VA Health Care: Improving Veterans' Access Poses Financial and Mission-Related Challenges ([GAO/HEHS-97-7](#), Oct. 25, 1996).

VA Health Care: Issues Affecting Eligibility Reform Efforts ([GAO/HEHS-96-160](#), Sept. 11, 1996).

Veterans' Health Care: Challenges for the Future ([GAO/T-HEHS-96-172](#), June 27, 1996).

Practice Guidelines: Managed Care Plans Customize Guidelines to Meet Local Interests ([GAO/HEHS-96-95](#), May 30, 1996).

VA Health Care: Opportunities to Increase Efficiency and Reduce Resource Needs ([GAO/T-HEHS-96-99](#), Mar. 8, 1996).

Veterans' Health Care: Facilities' Resource Allocations Could Be More Equitable ([GAO/HEHS-96-48](#), Feb. 7, 1996).

VA Health Care: Exploring Options to Improve Veterans' Access to VA Facilities ([GAO/HEHS-96-52](#), Feb. 6, 1996).

VA Health Care: How Distance From VA Facilities Affects Veterans' Use of VA Services ([GAO/HEHS-96-31](#), Dec. 20, 1995).

VA Health Care Delivery: Top Management Leadership Critical to Success of Decision Support System ([GAO/AIMD-95-182](#), Sept. 29, 1995).

VA Health Care: Challenges and Options for the Future ([GAO/T-HEHS-95-147](#), May 9, 1995).

Barriers to VA Managed Care ([GAO/HEHS-95-84R](#), Apr. 20, 1995).

Veterans' Health Care: Efforts to Make VA Competitive May Create Significant Risks ([GAO/T-HEHS-94-197](#), June 29, 1994).

VA Health Care: Restructuring Ambulatory Care System Would Improve Services to Veterans ([GAO/HRD-94-4](#), Oct. 15, 1993).

VA Health Care: Resource Allocation Methodology Has Little Impact on Medical Centers' Budgets ([GAO/HRD-89-93](#), Aug. 18, 1989).

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