



COUNCIL ON GRADUATE MEDICAL EDUCATION

ADDENDUM
to the Second Report of the Council

•
The Financial Status of the
Department of Veterans Affairs Teaching Hospitals



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Health Resources and Services Administration

**HEALTH RESOURCES
AND SERVICES ADMINISTRATION**
“HRSA—Helping Build A Healthier Nation”

The Health Resources and Services Administration has leadership responsibility in the U.S. Public Health Service for health service and resource issues. HRSA pursues its objectives by:

- Supporting states and communities in delivering health care to underserved residents, mothers and children and other groups;
- Participating in the campaign against AIDS;
- Serving as a focal point for federal organ transplant activities;
- Providing leadership in improving health professions training;
- Tracking the supply of health professionals and monitoring their competence through operation of a nationwide data bank on malpractice claims and sanctions; and
- Monitoring developments affecting health facilities, especially those in rural areas.



COUNCIL ON GRADUATE MEDICAL EDUCATION

ADDENDUM
to the Second Report of the Council

•
The Financial Status of the
Department of Veterans Affairs Teaching Hospitals

•
August 1991

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Health Resources and Services Administration
Bureau of Health Professions
Division of Medicine
Pub. No. HRS-P-DM-91-123

The views expressed in this document are solely those
of the Council on Graduate Medical Education and do not
necessarily represent the views of the
Health Resources and Services Administration
or the U.S. Government

CHARGE TO THE COUNCIL

Title VII of the Public Health Service Act in Section 799(H), as amended by Public Law 99-272, required that the Council on Graduate Medical Education provide advice and make recommendations to the Secretary and to the Committees on Labor and Human Resources, and on Finance of the Senate and the Committees on Energy and Commerce, and on Ways and Means of the House of Representatives, with respect to:

- (A) the supply and distribution of physicians in the United States;
- (B) current and future shortages or excesses of physicians in medical and surgical specialties and subspecialties;
- (C) issues relating to foreign medical school graduates;
- (D) appropriate Federal policies with respect to the matters specified in (A), (B), and (C) above, including policies concerning changes in the financing of undergraduate and graduate medical education programs and changes in the types of medical education training in graduate medical education programs;
- (E) appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy, and accrediting bodies with respect to the matters specified in (A), (B), and (C) above, including efforts for changes in undergraduate and graduate medical education programs; and
- (F) deficiencies in, and needs for improvements in, existing data bases concerning the supply and distribution of, and postgraduate training programs for, physicians in the United States and steps that should be taken to eliminate those deficiencies. The Council is to encourage entities providing graduate medical education to conduct activities to voluntarily achieve the recommendations of this Council under paragraph (E) above.

COUNCIL ON GRADUATE MEDICAL EDUCATION

Dipali V. Apte
Medical Scholars Program
University of Illinois
College of Medicine
190 Medical Sciences Building
506 South Matthews
Urbana, Illinois 61801
(217) 333-2435 (Through 9/30/91)

Jack W. Colwill, M.D.
Chairman and Professor
Department of Family & Community Medicine
M228 Health Sciences Center
University of Missouri-Columbia
Columbia, Missouri 65212
(314) 882-2996 (Through 9/30/94)

Lawrence U. Haspel, D.O.
Executive V.P., Hospital Operations
Chicago College of Osteopathic Medicine
5200 South Ellis Avenue
Chicago, Illinois 60615
(708) 747-4000 ext. 1294
(Through 9/30/91)

William S. Hoffman, Ph.D.
Director
UAW Social Security Department
8000 East Jefferson Avenue
Detroit, Michigan 48214
(313) 926-5321 (Through 9/30/92)

Stuart J. Marylander
President and Chief Executive Officer
Triad Healthcare
4911 Van Nuys Boulevard, Suite 309
Sherman Oaks, California 91403
(818) 995-7366 (Through 9/30/94)

Pedro Ruiz, M.D.
Department of Psychiatry
Baylor University
College of Medicine
One Baylor Plaza, Room 604-D2
Houston, Texas 77030
(713) 798-4855 (Through 9/30/93)

Cecil O. Samuelson, Jr., M.D.
Senior Vice President for Medical Affairs
Intermountain Health Care Inc.
36 South State Street, 22nd Floor
Salt Lake City, Utah 84111
(801) 530-3537 (Through 9/30/91)

David Satcher, M.D., Ph.D.
President
Meharry Medical College
1005 D.B. Todd Boulevard
Nashville, Tennessee 37208
(615) 327-6605 (Through 9/30/93)

Juereta P. Smith, R.N., J.D.
Counselor
USAA, RMRHO
1855 Telstar Drive
Colorado Springs, Colorado 80920-9936
(719) 528-4918 (Through 9/30/92)

Margaret T. Stanley, M.H.A.
Administrator
Washington State Health Care Authority
4505 Woodview Drive SE, QF 31
Olympia, Washington 98504
(206) 438-7979 (Through 9/30/92)

Robert L. Summitt, M.D.
Executive Vice Chancellor and Provost
Dean, College of Medicine
University of Tennessee, Memphis
Health Science Center
62 South Dunlap, Suite 400
Memphis, Tennessee 38163
(901) 528-5529 (Through 9/30/94)

Neal A. Vanselow, M.D.
Chancellor
Tulane University Medical Center
1430 Tulane Avenue
New Orleans, Louisiana 70112
(504) 588-5295 (Through 9/30/91)

Charles E. Windsor
President and Chief Executive Officer
St. Mary's Hospital
129 North 8th Street
East St. Louis, Illinois 62201
(618) 274-1900 (Through 9/30/93)

George D. Zuidema, M.D.
Vice Provost for Medical Affairs
The University of Michigan
4100 Medical Science Bldg. 1,
C-Wing, 0608
1301 Catherine Road
Ann Arbor, Michigan 48109-0608
(313) 764-2104 (Through 9/30/92)

James O. Mason, M.D., Dr.P.H.
Assistant Secretary for Health
Department of Health & Human Services
Public Health Service
Hubert H. Humphrey Bldg., Room 716G
200 Independence Avenue, S.W.
Washington, D.C. 20201
(202) 245-7694

Gail R. Wilensky, Ph.D.
Administrator, Health Care
Financing Administration
Department of Health & Human Services
Hubert H. Humphrey Bldg., Room 314G
200 Independence Avenue, S.W.
Washington, D.C. 20201
(202) 245-6726

James W. Holsinger, Jr., M.D.
Chief Medical Director
Department of Veterans Affairs
810 Vermont Avenue, N.W.
Washington, D.C. 20420
(202) 233-2596

Designee of the Assistant
Secretary for Health

Robert G. Harmon, M.D.
Administrator
Health Resources and Services
Administration
Public Health Service
Parklawn Building, Room 14-05
5600 Fishers Lane
Rockville, Maryland 20857
(301) 443-2216

Designee of the Health Care
Financing Administration

Robert G. Eaton
Associate Administrator for
Program Development
Health Care Financing Administration
Hubert H. Humphrey Bldg., Room 325H
200 Independence Avenue, S.W.
Washington, D.C. 20201
(202) 245-7063

Designee of the Department of
Veterans Affairs

Peter F. Regan, M.D.
Assistant Chief Medical Director
for Academic Affairs
Department of Veterans Affairs
810 Vermont Avenue, N.W., Room 874
Washington, D.C. 20420
(202) 233-5093

Executive Secretary

Carol S. Gleich, Ph.D.
Division of Medicine
Bureau of Health Professions
Health Resources and Services
Administration
5600 Fishers Lane, Room 4C-25
Rockville, Maryland 20857
(301) 443-3626

Deputy Executive Secretary

F. Lawrence Clare, M.D., M.P.H.
Division of Medicine
Bureau of Health Professions
Health Resources and Services
Administration
5600 Fishers Lane, Room 4C-25
Rockville, Maryland 20857
(301) 443-6326

FORMER MEMBERS THROUGH SEPTEMBER 1989

Harry L. Metcalf, M.D.
President
Highgate Medical Group, P.C.
Williamsville, New York

James A. Pittman, Jr., M.D.
Dean
University of Alabama
School of Medicine
Birmingham, Alabama

ACKNOWLEDGEMENT

The preparation of this Addendum to the Second Report of the Council on Graduate Medical Education (COGME) was assisted greatly by staff in the Department of Veterans Affairs (VA) and the Health Resources and Services Administration (HRSA). While the Council accepts all responsibility for this report, the following professional staff members of the VA were essential and key to the development of the Addendum: Evert Molander and Elizabeth M. Short. In addition, former Executive Secretary to the Council, Marilyn H. Gaston, M.D. and current Executive Secretary, Carol S. Gleich, Ph.D., F. Lawrence Clare, M.D., M.P.H. and Debbie M. Jackson, M.A., of the Division of Medicine, HRSA, were helpful in finalizing the Addendum. Particular acknowledgement is given to fine administrative support provided by John Heyob, Donna Breslyn, and William B. Hill. Excellent secretarial assistance was provided by Ira L. Crittenden of the VA .

COUNCIL ON GRADUATE MEDICAL EDUCATION SUBCOMMITTEES

Neal A. Vanselow, M.D.
Chairperson

David Satcher, M.D., Ph.D.
Vice-Chairperson

Carol S. Gleich, Ph.D.
Executive Secretary

Physician Manpower

George D. Zuidema, M.D., Chairperson
Jack W. Colwill, M.D.
Robert G. Harmon, M.D. (ASH designee)
William S. Hoffman, Ph.D.
Pedro Ruiz, M.D.
Juereta P. Smith, R.N., J.D.

Staff liaison: Jerald M. Katzoff
Division of Medicine

Medical Education Programs and Financing

Cecil O. Samuelson, Jr., M.D., Chairperson
Dipali V. Apte
Robert G. Eaton (HCFA designee)
Lawrence U. Haspel, D.O.
Stuart J. Marylander
Peter F. Regan, M.D. (VA designee)
Margaret T. Stanley, M.H.A.
Robert L. Summitt, M.D.
Charles E. Windsor

Staff liaison: Debbie M. Jackson, M.A.
Division of Medicine

Minority Representation in Medicine

David Satcher, M.D., Ph.D., Chairperson
Dipali V. Apte
Jack W. Colwill, M.D.
William S. Hoffman, Ph.D.
Stuart J. Marylander
Pedro Ruiz, M.D.
Juereta P. Smith, R.N., J.D.
Robert L. Summitt, M.D.

Staff liaison: Lanardo E. Moody, M.A.
Division of Medicine

I. INTRODUCTION

OVERVIEW

The Council on Graduate Medical Education (COGME) is charged by law to provide recommendations concerning the adequacy of the current and future supply and distribution of physicians in the United States; issues relating to foreign medical graduates; appropriate Federal policies with respect to changes in the financing of undergraduate and graduate medical education (GME) programs, and changes in the types of GME programs; appropriate efforts to be carried out by hospitals, schools of medicine, schools of osteopathy, and accrediting bodies with respect to physician supply adequacy and medical education programs; and deficiencies and needs for improvements in data bases concerning physician supply and distribution, and medical education programs in the United States. COGME works by obtaining data and information from expert testimony and contracted analyses, and discussions with experts in the field.

Clinical medical education and GME in the United States are centered in teaching hospitals which serve as a key resource for the nation. They provide leadership in biomedical training and research, access to health care for large minority and underserved populations in nearly all states, complex and intense care frequently not available elsewhere, and leadership in the quality of care provided to the American people. The financial status of teaching hospitals is a key factor in their ability to maintain the quality and thoroughness of training, the adequacy of the supply and distribution of physicians, high quality of care, and access to health care for many citizens who are underserved or in need of the most advanced levels of medical care. In particular, teaching hospitals of the Department of Veterans Affairs (DVA, or VA) make up a significant proportion of U.S. teaching hospitals, in which 20,000 medical students received some portion of their undergraduate medical education, and through which more than 25,000 residents obtain some portion of their graduate medical education (GME) each year. This number of residents is equivalent to over 8,000 full-time residents, or about 10 percent of all residents in training in the United States.

PURPOSE

In mid-1989, the Council became concerned with anecdotal evidence of a deteriorating financial status for many of the nation's teaching hospitals, including those of the VA. Because such difficulties could have the potential to affect the quality and operations of GME programs and the number of GME programs available to train future physicians, COGME at its June 1989 meeting decided to engage a contractor to comprehensively analyze existing data on the financial status of both VA and non-VA teaching hospitals, and to consider issuing a special report on the subject.

To study the financial status of teaching hospitals, the Bureau of Health Professions (BHP) and the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services, and the Department of Veterans Affairs (DVA), commissioned Lewin/ICF, Inc., to analyze existing financial data and information on non-Federal and Veterans Administration teaching hospitals. The portion of the Lewin/ICF report on VA hospitals was presented and discussed at the regular COGME meeting of January 29-30, 1990 (the portion on non-VA teaching hospitals had been presented at a special COGME meeting on November 2, 1989). After some further work by Lewin/ICF, its final report on VA teaching hospitals was presented to COGME in the final Lewin/ICF report dated March 8, 1990.

FINANCIAL STATUS OF VA MAJOR TEACHING HOSPITALS, 1985-1988

EXECUTIVE SUMMARY:

In 1989-90 the Congressionally chartered Commission on Graduate Medical Education (COGME) undertook an analysis of recent trends in the fiscal status of U.S. teaching hospitals with a view to assessing their institutional viability as the major sites for graduate medical education in an era of increasing fiscal pressures on hospitals. The first portion of these studies¹ focused on non-federal teaching hospitals. The present report sets forth selected data concerning financial trends in Department of Veterans Affairs (VA) major teaching hospitals compared with their nonfederal counterparts with many of whom these VA hospitals share affiliated, integrated GME programs.

Concern for the stability and viability of VA-sponsored GME is motivated by cognizance of the significant role these hospitals play in GME. In recent years, VA teaching hospitals have supported 12 percent of U.S. residents in all specialties but OB-GYN and Pediatrics. In 1989-90 VA supported 8,350 resident positions through which were rotated more than 30,000 residents. Thus VA hospitals are major GME sites for over half of all residents each year.

COGME examined patient care funding on the presumption that if the fiscal viability of teaching institutions were imperiled by underfunding of patient care costs, their teaching capacity would eventually be compromised. COGME found that in non-federal teaching hospitals, the average total hospital margin had declined steadily in the years since the prospective payment system (PPS) was established. By PPS year 4, total margins were negative in at least 25 percent of these hospitals.¹ This progressive decrement in patient care revenues to expenditures was viewed with concern for its potential impact on the GME mission of these major teaching institutions.

The comparison analysis of the financial status of VA hospitals proved more difficult. Appraisal of the financial condition of VA hospitals cannot be performed using traditional income statement or balance sheet measures such as hospital margins or current ratios. Financial record keeping in the VA is centered around the Federal budget process, since, for all practical purposes, the Federal government is the VA's sole source of funds. VA hospitals do not fill out Medicare or other types of cost reports or track revenues and expenses in the same manner as non-Federal hospitals. VA hospitals do not receive extra revenue for more patients than were assumed in their budget allocation unless the Congress authorizes supplemental appropriations, and by law, VA hospitals cannot run deficits. Thus the concept of hospital margins has no meaning for VA hospitals, which operate totally within the budget process.

These methodological limitations led to the present analysis in which various VA patient care expenditures for federal fiscal years 1985-1989 were compared with patient care revenues available to nonfederal teaching hospitals for the same period (PPS 1-4). The following findings emerged:

- o The annual increase in total noncapital expenditures in VA major teaching hospitals was below the annual rate of growth in total net revenues in non-Federal major teaching hospitals, at 5.1 percent vs. 7.9 percent annual growth from 1985-88.
- o Per inpatient case measures of major teaching hospital income also demonstrate that VA hospitals lag behind their non-Federal teaching counterparts. VA expenditures per inpatient case in major teaching hospitals grew only 2.8 percent per year from 1985-88, while Medicare per case revenues grew 5.8 percent. Adjusted for case mix, using the Medicare adjusted case mix index, VA expenditures grew only 1.8 percent annually; during the comparable time period, similarly adjusted Medicare per-case revenues increased 4.2 percent per year and the medical CPI increased 6.9 percent per year.
- o Since federal salaries were capped at 2.4 percent annual growth from 1985-88, VA was increasingly forced to use scarce health specialty wage exemptions, special pay, and service contracts rather than FTE employment, to keep pace with market wages for health personnel. These increasing costs in the face of limited revenues forced an annual decline in employment from 1985-88 of -2.6 percent FTE per discharge and -1.3 percent FTE per outpatient visit.

Since nonfederal teaching hospital revenues grew at a slower rate than expenditures, and even fell below expenditures in at least 25 percent of these institutions, it can be inferred that the even slower annual growth rate of expendable resources in VA teaching hospitals was also progressively less adequate for purchase of similar goods and services. These preliminary comparisons suggest that VA hospitals are experiencing fiscal constraints similar to those of their sister institutions, but firm conclusions cannot be drawn from this study because of persistent uncertainties about the comparability of patient care costs and patient populations between these institutions.

Neither non-federal nor VA major teaching hospitals have reduced the scale of their GME programs to date in response to these trends, but COGME remains concerned that these trends will have an impact on the quality of patient care, and that excellence in education cannot be sustained in institutions where quality of care is compromised.

CONCLUSIONS

The lack of traditional accounting measures for VA hospitals and the manner in which funds are allocated through the Federal budget process complicates the analysis of the financial status of VA hospitals. Although conventional financial measures cannot be calculated directly for VA hospitals, alternative measures generally indicate that during the four years 1985-1989, the level of resources available to VA major teaching hospitals has risen more slowly than the level of revenues earned by non-VA major teaching hospitals. Because of limitations in the data available to perform this analysis, particularly the absence of a comparable case-mix measure for VA hospitals, it is difficult to determine what effect slower revenue growth has had on the VA's ability to provide quality medical services. The present analysis documents that the financial condition of VA hospitals has declined. The findings suggest a need for further research into the VA's financial status, and its impact on quality of care and its medical education mission.

Perhaps the strongest indication of financial pressures in the VA system from this analysis is that CMDE inpatient expenditures per discharge in VA hospitals increased at a significantly slower rate than Medicare revenues per case in non-VA hospitals--about 3.0 percent less annually in major teaching hospitals. Total VA hospital expenditures also grew more slowly than non-VA sector total revenues, although the differential was smaller. Thus, the rates of expenditure growth in VA teaching hospitals are significantly below the rate of revenue growth in non-federal teaching institutions. Further study is needed to determine whether these lower rates of growth have adverse implications for the ability of the VA to maintain its current teaching role in the future.

RECOMMENDATION

The importance of VA hospitals in providing medical services and offering educational opportunity to the Nation's residents necessitate a better understanding of the forces affecting the financial status of VA teaching institutions. However, better methods for measuring the relative cost, quality, and intensity of services need to be developed. Further research into changes in the VA's financial status would be assisted by development of a reliable case-mix measure for VA hospitals and more conclusive financial measures at the hospital level.

FINANCIAL STATUS OF DEPARTMENT OF VETERANS
AFFAIRS HOSPITALS BETWEEN 1985 AND 1988

A. INTRODUCTION

Approximately 12 percent of GME provided in the U.S. in all specialties save OBGYN and pediatrics is conducted at VA hospitals. The VA supported 8,350 resident positions in the 1988-89 academic year and more than 30,000 residents rotated through VA hospitals as part of integrated academic medical center programs. About 90 percent of these residencies were located in the 74 VA hospitals which are members of the AAMC's Council of Teaching Hospitals (COTH). Many of the VA's major teaching hospitals are located close to a major university teaching hospital, and in some cases they are physically connected. These VA teaching hospitals provide services similar to those available in non-VA academic centers and compete with them for personnel and other local resources. Because VA hospitals play an important role in graduate medical education, their financial status has important implications for the training of future physicians.

Appraisal of the financial condition of VA hospitals cannot be performed using traditional income statement or balance sheet measures such as hospital margins or current ratios. Financial record keeping in the VA is centered around the Federal budget process, since, for all practical purposes, the Federal government is the VA's sole source of funds. VA hospitals do not fill out Medicare or other types of cost reports or track revenues and expenses in the same manner as non-Federal hospitals. VA hospitals do not receive extra revenue for treating more patients than were assumed in their budget allocation unless the Congress authorizes supplemental appropriations, and by law, VA hospitals cannot run deficits. Thus the concept of hospital margins has no meaning for VA hospitals, which operate totally within the budget process.

The number of patients treated in VA hospitals is constrained by a given year's budget allocation and the efficiency with which the hospitals use this allocation. If service demands increase faster than budget appropriations or if inflation-adjusted budget levels decline, VA hospitals can only respond by: (1) reducing the number of patients served by reducing care to patient populations of lower priority in the VA's mandate (e.g., patients with nonservice-related conditions); (2) operating more efficiently while maintaining a constant level of quality; (3) reducing the quality of care provided to each patient; or (4) allowing depletion of the institutions' capital stock.

Several other factors should be considered when comparing the VA system to the non-VA sector. The VA budget includes physician salaries while the majority of physicians working in non-VA hospitals bill separately for their services. In the context of this analysis, VA expenditures purchase both physician and hospital services while non-VA hospital revenues come primarily from providing hospital care. Thus, VA teaching hospital expenditures, while growing at a slower rate than those of non-federal teaching hospitals, must cover all costs of faculty/staff physicians as well as all other expenditures.

Approximately 63 percent of the VA medical care budget is used for salaries and benefits, compared with about 53 percent in non-VA community hospitals. While some portion of the VA's personnel costs are constrained to rates of increase well below the medical care CPI, many health professional specialties are paid by contract or at scarce specialist wage rates competitive with private sector markets.

B. METHODOLOGY

Because of the lack of traditional measures available to analyze the financial pressures on VA hospitals, a variety of alternative approaches were constructed by Lewin/ICF. These alternative measures were used to compare the rate of growth of non-VA hospital revenues to the rate of expenditure growth in VA hospitals. While each VA major teaching hospital is a tertiary acute care institution comparable to its university hospital counterpart, with fully integrated residency training programs and faculty physicians, comparison of VA and university teaching hospital financial status is hampered by the lack of a reliable, comparable case-mix measure. VA hospitals do not use the Medicare adjusted case-mix index, and their DRG-based weighted work unit (WWU) is not a comparable measure of complexity or case mix. Because of the absence of comparable cost data and without a reliable measure of relative changes in resource intensity between VA and non-VA major teaching hospitals, the implications of differences in revenue growth rates on quality of care and the continued ability to offer educational opportunities cannot be fully evaluated at this time.

Because complete budget information was not available on a hospital-specific basis, hospital-specific "case mix direct and educational" (CMDE) expenditures were used as a proxy for VA revenues when inpatient and outpatient data needed to be separately analyzed. For other analyses, total VA hospital expenditures were used and compared with net revenues in the non-VA sector. Although CMDE and total expenditures provide reasonable proxies for the rate of revenue growth available to VA hospitals, analysis of relative financial condition is limited by the lack of cost data. Moreover, the patient categorization system developed for VA hospitals does

not appear to accurately reflect changes in resource intensity. The following alternative measures were developed by Lewin/ICF to analyze the financial condition of VA hospitals:

- o The rate of increase in inpatient CMDE expenditures per case in VA hospitals was compared to the rate of per-case Medicare revenue growth in non-VA hospitals.
- o The rate of growth in total revenues (net of contractual allowances) in non-VA hospitals was compared with the increase in total expenditures in VA hospitals.
- o The rate of growth in CMDE expenditures per unit of "patient care activities" was analyzed.
- o Some personnel expenditures and staffing levels were analyzed.

All measures developed in this study were analyzed for major teaching hospitals. VA major teaching hospitals are defined as VA member hospitals in the Association of American Medical Colleges Council of Teaching Hospitals (COTH). The data analyzed include 74 VA COTH hospitals, which provide about 90 percent of the VA's residency positions. For these hospitals, there is an acute care intern/resident-to-bed ratio (IRB) of at least 0.25. Major teaching hospitals in the non-federal sector were defined as those with a resident-to-bed ratio of at least 0.25.

C. FINDINGS

FINDING 1: TOTAL "REVENUE"* GROWTH IN VA MAJOR TEACHING HOSPITALS INCREASED AT A SLOWER RATE THAN TOTAL REVENUES IN NON-FEDERAL MAJOR TEACHING HOSPITALS BETWEEN 1985-88.

1. VA Inpatient CMDE Expenditures Per Discharge Versus Medicare Per-Case Revenue In Non-federal Sector Hospitals

This analysis measured the change over time in the relative level of resources available to treat inpatient cases in the VA and non-VA hospitals. Medicare per-case inpatient revenues were used to analyze the non-VA sector because Medicare Cost Reports do not contain sufficient detail to calculate total net revenues for inpatient care only.² While measures of inpatient hospital revenues from all payers can potentially be developed from other data sets (e.g, the AHA annual hospital survey), this was outside the scope of the Lewin/ICF study. Although the rate of change in Medicare revenues may differ from that of other payers, it is an important public funding program and a significant source of revenues for many non-VA teaching hospitals. Therefore it is probably a relevant measure for comparison with per-case changes in the VA system.

CMDE expenditures for inpatient and outpatient services from the VA's Resource Allocation Model (RAM) were used as a proxy for VA hospital revenues. Because VA hospitals spend their full budget appropriation, expenditures closely approximate hospital revenues. CMDE expenditures include costs related to direct patient care activities, such as physician and nursing salaries, laboratory tests, X-rays, and supplies. CMDE expenditures also include educational costs, but do not include resident salaries. Although CMDE expenditures only account for about half of the costs incurred in VA hospitals, the rate of growth from year to year is roughly consistent with the rate of growth in budget authority.³ Budget authority for inpatient care grew by 1.8 percent per year while inpatient CMDE expenditures grew by 2.5 percent. Budget authority for outpatient care grew by 10.0 percent annually compared with 10.2 percent for outpatient CMDE expenditures.

* Annual total expenditures in VA hospitals are a "revenue" measure because all appropriations are expended in the fiscal year. VA does not record revenues or accumulate margins, and annual expenditures represent the best measure of total income. They exclude capital investments for major building projects.

Observed differences in per-case revenue growth rates may be influenced by the different patient populations in each system.⁴ Because estimates of per-case revenue growth would be more informative when adjusted for changes in hospital case-mix, VA CMDE were adjusted for one-half of the Medicare case mix index for PPS 1-4. This case mix adjustment was chosen because it is the same as the one used in adjusting private sector Medicare per case revenues in VA's companion major teaching hospitals. VA does not have a case mix index which functions comparably with the Medicare index in adjusting for case complexity/severity.

In order to reflect the impact of growth in inpatient case mix in the general population, both VA and non-VA sector per-case revenues were adjusted by one-half the increase in the Medicare case mix index.⁵ This approach assumes some similarity in case-mix growth between the two systems, and should help to estimate the degree to which some portion of revenue growth may be required to treat an increasingly complex mix of patients.

As shown in Table 3-1, per-case inpatient Medicare revenues in non-VA hospitals grew faster than did CMDE per-case inpatient expenditures in VA hospitals. Medicare per-case revenues grew about 5.8 percent annually in non-federal teaching hospitals between PPS-1 and PPS-4, compared with 2.8 percent annual growth in VA major teaching hospital CMDE between 1985 and 1988. CMDE expenditures per case are lower than Medicare per-case revenues in major teaching hospitals in 1985, and the relatively slower growth in per-case expenditures in VA hospitals over the ensuing four years created a cumulative per-case revenue growth differential of 12 percentage points, a large decrement in revenue flow to VA teaching hospitals relative to their counterparts.

The rate of annual Medicare revenue growth is driven in large part by growth in service intensity, measured by the change in the average Medicare case-mix index. The Medicare case mix index rose by about 3.1 percent per year in major teaching hospitals between PPS-1 and PPS-4.⁶ As discussed previously, one-half this amount was used to adjust both the VA and non-VA sector amounts. The net effect was case-mix adjusted revenues which rose by about 4.2 percent annually in major teaching hospitals in the non-federal sector. After adjusting for one-half of the change in Medicare case mix, annual revenue growth was 1.8 percent for VA major teaching hospitals.

Table 3-1
Inpatient Revenues per Discharge
(Medicare Revenue versus VA CMDE Inpatient Expenditures)

Major Teaching Hospitals	FFY 85	FFY 86	FFY 87	FFY 88	Annual Change
VA System					
Expenditure/Case	\$4,139	\$3,915	\$4,330	\$4,500	2.8%
Case Mix Adj.	\$3,376	\$3,129	\$3,411	\$3,506	1.8%
<hr/>					
	<u>PPS-1</u>	<u>PPS-2</u>	<u>PPS-3</u>	<u>PPS-4</u>	<u>CHANGE</u>
Non-federal Sector					
M'Care Rev/Case	\$5,211	n/a	n/a	\$6,172	5.8%
Case Mix Adj.	\$4,250	n/a	n/a	\$4,808	4.2%

Notes

1. Medicare inpatient operating revenues per case exclude capital and direct house staff expenditures. PPS-1 through PPS-4.
2. The case mix adjustment is equal to one-half the increase in the Medicare case mix index for major teaching and nonteaching hospitals.
3. CMDE inpatient expenditures is used as a proxy for revenue in VA hospitals. CMDE expenditures include all educational costs except for residence salaries and exclude capital and indirect (administrative salaries and routine maintenance) expenses. They represent about 50 percent of total expenditures.
4. Major teaching hospitals in the VA system are defined as COTH member hospitals. The vast majority have acute care IRE ratios of at least 0.25. In the non-VA sector, major teaching hospitals are defined as having at least one resident for every four beds.

SOURCE: Lewin/ICF estimates based on data from the VA, ProPac, and MCRs.

2. Total VA Hospital Expenditures Versus Total Net Revenues in Non-Federal Hospitals

Another way to analyze the financial status of VA hospitals is to compare changes in total VA hospital expenditures to the growth in total net revenues experienced by non-VA hospitals. VA total expenditures could be used for this comparison because it did not require disaggregation into inpatient and outpatient components. Total VA expenditures include all hospital costs except capital and are more nearly comparable to non-VA total net revenue than VA CMDE expenditures because they include indirect expenses for administrative salaries and routine maintenance. Total net revenues for non-VA hospitals include payments for inpatient and outpatient services and nonoperating revenues, and were calculated using data from Medicare cost reports. Only hospitals which submitted cost reports during all four years of the PPS were included in the comparison. Total expenditures in the VA system are from FFY 1985 through FFY 1988.

As Table 3-2 shows, total net revenue in non-VA hospitals rose faster than total expenditures in the VA system between 1985 and 1988. Non-federal major teaching hospitals, experienced revenue growth of about 7.9 percent annually between PPS-1 and PPS-4, compared with VA major teaching hospitals which experienced budget growth of about 5.1 percent per year. The VA experienced faster growth in total expenditures than in CMDE inpatient per-case expenditures (5.1 percent compared with 2.8 percent) because Congress increased VA's funding for outpatient care more rapidly than inpatient care.

Over the four-year period, total net revenues grew by about 26 percent in non-VA major teaching hospitals compared with a 16 percent increase in total expenditures for the VA major teaching hospitals. This differential represents a significantly lesser amount of financial resources available to these federal major teaching hospitals.

Table 3-2
Total Net Revenues in Non-federal Hospitals Versus
Total Expenditures in VA Institutions
(Millions)

Major Teaching Hospitals	FFY 85	FFY 86	FFY 87	FFY 88	Annual Growth
VA System	\$5,070	\$5,289	\$5,531	\$5,883	5.1%
Non-VA	\$10,923	\$11,704	\$12,802	\$13,720	7.9%

Notes: 1) Total net revenue in non-VA hospitals include payments for inpatient and outpatient services (net of contractual allowances) and nonoperating revenues. Total VA expenditures include both direct and indirect expenses for inpatient and outpatient care. While not all non-VA hospital revenues include a specific capital allocation similar to Medicare payments, total net revenue implicitly include reimbursement for capital expense. The VA measure does not include capital expenditures.

2) Major teaching hospitals in the VA system are defined as COTH member hospitals. Almost all have an acute care IRB ratio of at least 0.25. In the non-VA sector, major teaching hospitals are defined as having at least one resident for every four beds.

3. VA CMDE Expenditures Per Unit of Patient Care Activity

Several measures of the rate of growth in revenue per unit of "patient care activity" were also examined to determine whether the funds available to VA hospitals rose or fell in relation to the amount of services provided. CMDE expenditures were compared to two measures of patient care activity: inpatient days and outpatient visits. While it is difficult to say what the rate of growth in revenue per unit of patient care activity should be, three potential comparison measures are the medical care CPI, which grew by about 6.9 percent per year over the period analyzed; the rate of growth in Federal salaries, which averaged 2.4 percent annually over the past four years; and non-VA hospital per-case Medicare revenues which grew about 5.8 percent per year over the study period.

In recent years the VA has made efforts to shift workload from the inpatient to the outpatient setting. Accordingly, the number of inpatient days in the VA system has declined by about 6 percent annually since 1985 while outpatient visits have grown by almost 8 percent per year. The change in CMDE expenditures reflects this shift; outpatient expenditures grew by about 10.2 percent annually between 1985 and 1988 while inpatient expenditures grew by only 2.5 percent per year. Table 3-3 shows that expenditures per outpatient visit grew at a rate significantly below the medical care CPI. CMDE expenditures per inpatient day appear to have outpaced medical CPI because of a combined decline of 1.6 days in average length of stay and 6 percent per year in inpatient days during 1985-88. Per case expenditures rose only 2.8 percent annually (Table 3-1) while medical CPI rose 6.9 percent.

Table 3-3
VA CMDE EXPENDITURES PER INPATIENT DAY AND OUTPATIENT VISIT

VA COTH Hospitals	FFY 85	FFY 86	FFY 87	FFY 88	Annual Growth
\$/Inpatient Day	\$191	\$184	\$225	\$250	9.4%
\$/Outpatient Visit	\$59	\$62	\$62	\$65	3.4%
Medical CPI	113.5	122.0	130.1	138.7	6.9%

Source: Lewin/ICF estimates based on data from the VA Division of Resource Management.

- Notes:
- 1) CMDE expenditures per inpatient day rose faster than the medical care component of the Consumer price Index (CPI) between 1985 and 1988, reflecting the relative decline in the number of inpatient days. This increase reflects the higher intensity of treatment per day which accompanied the declining average lengths of stay in VA hospitals.
 - 2) In the VA, the average length of stay (ALOS) for patients (less than 99 days) during Fiscal Year 1985 wa 13.8 days. ALOS declined to 12.2 days by December 1988.
 - 3) Adjusted Medicare case-mix index.

FINDING 2: EXPENSES IN VA MAJOR TEACHING HOSPITALS ARE IN THE MAIN DRIVEN BY THE SAME MEDICAL MARKET FORCES AS THOSE OF THEIR NON-FEDERAL TEACHING COLLEAGUE INSTITUTIONS. THUS, THE REVENUE LAG EXPERIENCED BY VA HOSPITALS IS NOT MITIGATED BY RESTRICTION OF GROWTH OF EXPENSES.

VA Salary and Employment Trends

Personnel account for a greater share of total expenditures in VA hospitals (63 percent) than in non-VA teaching hospitals (53 percent). Personnel in VA hospitals are paid according to the Federal civil service pay schedule. Civil service pay increases averaged about 2.4 percent annually between 1985 and 1988, and Federal workers are subject to maximum salary caps. Such constraints on Federal salary growth might dampen the rate of increase in the costs of providing medical care in the VA system, and the VA workforce might be absorbing the majority of the difference between revenue growth in the VA and the non-VA sector. While such salary constraints may save money in the short run, over the long term this could create barriers to the recruitment of necessary staff and may lead to deterioration in the quality of care.

In fact, a recent study of relative pay differences in VA and non-VA hospitals by Klemm Associates indicates that pay levels are equivalent for most types of hospital staff, since many health profession specialists are paid by contract or at scarce specialist wage rates rather than standard federal civil service wages. The study notes that while VA salaries are, in general, similar to the rest of the marketplace, the VA cannot adjust its salary structure with sufficient speed to adapt to a changing environment, resulting in salary levels which may be out of date in certain geographic locations. Table 3-4 compares average minimum and average maximum salaries for five hospital occupations in the VA and the non-VA sector.

Although the Klemm analysis did not include some important classes of personnel, particularly physicians, it appears that in general, slower VA budget allocations have not been absorbed by low staff salaries, since VA salaries do not appear to be below "market" levels. Given VA salaries that are, on average, roughly comparable to the non-VA sector, budget shortfalls are likely to have affected personnel employment levels.

Indeed, VA has been reducing staff in its hospitals. Table 3-5 indicates that the number of FTE personnel providing inpatient services in COTH hospitals declined by about 2.3 percent annually between 1985 and 1988. However, during the period analyzed, VA hospitals did not experience a decline in inpatient discharges, indicating relatively fewer personnel resources devoted to each patient discharged. Although the number of personnel providing outpatient services in VA hospitals increased between 1985 and 1988, outpatient workload grew even faster. Outpatient FTEs per visit declined by 1.3 percent annually in VA COTH hospitals.

Given VA salaries which are, on average, roughly comparable to the private sector, budget shortfalls appear to have resulted in a reduction in hospital personnel relative to several measures of patient workload. In addition, shortfalls are likely to have affected the procurement of supplies, maintenance, and long term capital investment.

Table 3-4
Salary Levels for Selected Occupations in The VA and Non-federal Sector
1988

Professional Occupation	VA	Private a/
Head Nurse		
Average Minimum	\$29,295	\$27,852
Average Maximum	39,418	39,504
Registered Nurse		
Average Minimum	22,033	22,416
Average Maximum	42,327	32,160
LPN/LVN		
Average Minimum	15,123	15,612
Average Maximum	22,213	21,012
Pharmacist		
Average Minimum	31,658	30,312
Average Maximum	39,278	40,476
Physical Therapist		
Average Minimum	28,103	24,504
Average Maximum	30,779	31,860

a/ National Survey of Hospital and Medical School salaries conducted by the University of Texas Medical Branch at Galveston.

Source: Klemm Analysis Group

Table 3-5
VA HOSPITAL FTE EMPLOYMENT PER DISCHARGE AND
PATIENT VISIT
1985-1988

VA COTH HOSPITALS	FY 1985	FY 1986	FY 1987	FY 1988	AVERAGE Annual Growth
INPATIENT FTEs	46,655	46,014	45,550	43,469	-2.3%
DISCHARGES	448,777	438,346	452,632	452,097	0.2%
FTE/DISCHARGE	0.104	0.105	0.101	0.096	-2.6%
OUTPATIENT FTEs	12,128	12,696	13,702	14,267	5.5%
OUTPATIENT VISITS	11,360,670	11,650,550	13,031,113	13,882,132	6.9%
FTE/VISIT	0.00107	0.00109	0.00105	0.00103	-1.3%

Source: VA Resource Allocation Model

REFERENCES

1. Council on Graduate Medical Education. Second Report: The Financial Status of Teaching Hospitals and the Underrepresentation of Minorities in Medicine. DHHS, HRSA, August, 1990.
2. MCR Data includes net total revenue (inpatient, outpatient, and nonoperating), and gross patient revenues (before contractual allowances) for inpatient and outpatient care separately. However, net inpatient revenues and net outpatient revenues cannot be developed separately from the data in its current format.
3. CMDE expenditures were used because data on total expenditures was not available separately for inpatient and outpatient services.
4. In general, VA hospitals treat relatively more long-term psychiatric and substance abuse patients than non-VA hospitals, and many maintain nursing home units. However the acute care units are the major components of the VA's tertiary care teaching hospitals, and these units are more comparable in case mix intensity to non-federal major teaching hospitals.
5. According to the Prospective Payment Assessment Commission, approximately half of Medicare case-mix increase is due to coding practices rather than increases in service complexity. Half of the Medicare case mix index, which rose by about 2 percent annually for nonteaching and 3 percent for major teaching institutions, is roughly consistent with the Canadian case mix which has risen by about 0.5 to 1.0 percent annually and the Medicare pre-PPS case mix increase of about 0.5 per year. The Canadian and pre-PPS indexes do not reflect the PPS incentives for upcoding.
6. Case mix figures from ProPAC's June 1989 Report to Congress are for 1984 through 1987 which roughly correspond to PPS-1 through PPS-4.
7. One potential problem with this comparison is that the VA data for Federal fiscal years is somewhat more recent than the PPS Year data. VA medical care appropriations for FFY 1988 are based on a period beginning in October 1987 which technically falls into PPS-5, while non-VA hospitals in PPS-4 have fiscal years beginning primarily in October 1986, January 1987, and July 1987.
8. Between 1985 and 1988, budget authority for outpatient care rose by 10 percent annually compared with about 2 percent per year for inpatient care.
9. Klemm Analysis Group, "Study of Pay and Other Personnel Management Practices: Final Report to the Department of Veterans Affairs," May 1989.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Health Resources and Services Administration
Bureau of Health Professions
Division of Medicine

Pub. No. HRS-P-DM-91-123
