PRIVATIZE FEDERAL PRISON HOSPITALS?

A Feasibility Study

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PREFACE

In 1988, the Office of Management and Budget requested that the National Institute of Justice study the feasibility of contracting with the private sector to manage or operate any of the hospitals that are currently being run by the Federal Bureau of Prisons. To conduct the study, the National Institute contracted with Abt Associates Inc.

The study was directed by Douglas C. McDonald, Ph.D., who was assisted by Joan Mullen, Managing Vice President, Law and Public Policy Area; and by Francoise Clottes, Vaira Harik, and Peter Feng, Research Assistants. The Abt Associates advisory committee for the project included:

Gary Gaumer, Managing Vice President, Health Research Area

Joseph Smith, Ph.D., Deputy Area Manager, Health Research Area

Scott Honiberg, Senior Associate, Business Strategy Group

Stephen Kennedy, Ph.D., Abt Associates' Chief Scientist.

Stephen Kennedy also served as Technical Monitor. Geoffrey Laredo served as the project monitor for the National Institute of Justice.

An external advisory board was also established to review the study's report. Members of this board included:

Professor Mark Schlesinger, Department of Public Health and the John F. Kennedy School of Government, Harvard University

Professor Jeffrey Alexander, Department of Health Service Management and Policy, School of Public Health, University of Michigan

B. Jaye Anno, Ph.D., Vice-President, National Commission on Correctional Health Care

Abt Associates and the National Institute of Justice are grateful for the contributions of these advisors to the project.

Finally, the study could not have been accomplished without the cooperation and assistance of many officials at the Bureau of Prisons. We are especially grateful to Kenneth Moritsugu, M.D., the Director of the Bureau's Medical Services Division, and Wade Houk, Director of the Bureau's Administration Division, for making their staffs available to us. In addition to others at the Bureau's Washington, D.C. headquarters, we

were assisted by numerous officials at the Federal Medical Center at Rochester, Minnesota, the Federal Correctional Institution at Lexington, Kentucky, and the Medical Center for Prisoners in Springfield, Missouri.

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INTRODUCTION

In a guidance document to the Department of Justice, the Office of Management and Budget requested that:

> During 1989, the National Institute of Justice is to conduct a study of the feasibility of contracting the management and operation of prison hospitals to the private sector to be completed by September 30, 1989. If the study indicates that private management and/or operation is feasible, a pilot project should be conducted in 1990. The study should examine all prison hospital functions--medical and custodial; review relevant Federal, State, and local government experience; and identify private sector interest. It should also address unique security, continuity, insurance and care vs. custody issues, and should identify which functions and which hospitals provide the best private sector opportunities.[1]

Three criteria were considered in assessing feasibility:

> **Ease of implementation:** This includes political considerations, legal constraints, and practical considerations. Political considerations include such things as the likelihood that public employees will oppose privatization, or the possibility that privatizing a prison hospital will diminish other valued interests of other groups or constituencies. Legal considerations include whether there is sufficient legal authority to delegate operational authority to a private firm, and whether there are special liability issues that will diminish or limit feasibility. Practical considerations include whether there are likely to be private firms interested in the proposed project, whether these firms have adequate experience in this field, and the extent to which the market for such services is competitive.
>
> **Effects on the quality of service delivery:** This includes considerations of whether quality of care, the stability of delivery, and accountability/quality control issues will be affected by privatizing management and/or operations.
>
> **The costs to the Federal government of contracting:** These include considerations of whether contracting will increase efficiency, so that the same services are provided at a lower level of expenditure, or that the same level of expenditure will yield more or higher quality services and whether contracting will incur other costs (for increased security, for example).

To carry out this study, we interviewed a number of officials at the Bureau of Prisons to determine how services are currently being delivered and conducted on-site inspections of three hospitals in the system: Rochester, Minnesota; Springfield, Missouri; and Lexington, Kentucky. These three receive all referrals for medical or surgical treatment within the Bureau. (A fourth hospital, at Butner, North Carolina, provides only psychiatric treatment and was not visited, nor were two smaller referral

centers at Fort Worth, Texas, and Terminal Island, California.) We also collected and analyzed a variety of data pertaining to budgets, expenditures, utilization, staffing, and organizational structure of the referral centers, reviewed the published literature on contracting for hospital management and operations, and conducted an examination of state and local governments' experience with contracting for health services. As a part of the latter task, we interviewed officials in a number of jurisdictions by telephone, examined contracts, analyzed a variety of other data including financial data, and interviewed officers of selected contracting firms.

Structure of this Report

Chapter One provides a thumbnail description of both the hospitals operated by the Bureau of Prisons and the larger health care system in which they are a part. We have considered the potential effects of privatization not only on the hospitals themselves but on the entire system. Chapter Two estimates the costs of services in the referral centers and explores the reasons for the differences among centers. Chapter Three addresses the feasibility of contracting management or operational responsibility for a prison hospital. Chapter Four explores the possible fiscal consequences of contracting. Chapter Five examines the possible effects of private contracting on the delivery of health care services in the hospital itself and in the larger system. Chapter Six explores some alternatives to privatization. Selected state and local experiences with contracting for correctional health care services are reviewed in Appendix A. Appendix B provides more detailed information on how the cost estimates were derived.

SUMMARY OF PRINCIPAL FINDINGS

The Feasibility of Implementing a Privatization Initiative

- Contracting for total managerial and operational responsibility of an entire prison hospital ("referral center") is infeasible because each of these facilities is but a division of a larger prison, with which it shares services and staff.

- Transfer of ownership of any referral center is also infeasible, given the absence of a competitive industry for operating prison hospitals, because the likelihood of thereby creating a monopoly provider is too high.

- Consideration of privatization should be limited to contracting for (1) the management and/or operation of all or some of the clinical services at the referral centers, or (2) for some specific management services, such as utilization review.

- The feasibility of finding an interested and qualified bidder for the management or operation of a prison hospital is uncertain, given the absence of firms with such experience.

- The constraints imposed upon the referral centers by their place in the larger Bureau of Prisons' health care network may make the prospect of administering them uninteresting to firms experienced in managing free community hospitals.

- Firms with experience providing correctional health care under contract with state and local governments specialize almost exclusively in providing outpatient care to prisoners, and have almost no experience administering hospitals. The sole example of a prison hospital under contract management in the country appears to be a recently-converted facility in Georgia, which began operations during the summer of 1989.

- Local hospitals may be interested in assuming managerial and, perhaps, operational responsibility for a referral center. Competitive conditions for soliciting bids from local hospitals exist in four of the six referral centers (Springfield, Lexington, Fort Worth, and Terminal Island).

- Experimenting with privatization at the Springfield center is not recommended because it is the workhorse of the national health care network, and the risks of disrupting the operations of that national network are too great.

- If the Bureau determines that there is sufficient reason to experiment with contracting either for the management or operation of a particular referral center, issuing a Request for Qualifications and Interest would test the availability and interest of potential contractors.

The Potential Effects of Contracting on Service Delivery

- Reviews of the experience of contract management of hospitals in the free community, and of the state and local experience with correctional health care contracting, do not suggest that the quality of patient care will be adversely or positively affected by contracting.

- Contracting may help relieve the referral centers' inability to achieve full staffing levels. While the Bureau's staffing problem is due partly to nationwide shortages of certain types of health care professionals, it is exacerbated by a non-competitive salary structure. Similarly, non-competitive pay scales have led state and local governments to turn to contracting as a technique to recruit needed staff (because contractors are not bound by government pay schedules, permitting them to pay higher salaries).

- The alternative to achieving full staffing by contracting is to raise government employee salaries to more competitive levels, and to undertake more aggressive and more expert recruitment.

- Fully staffing the referral centers, by either contracted or government employees, will probably speed up the treatment of medical/surgical patients at the Lexington, Springfield, and Rochester centers, shortening their length of stay. The net effect on the total cost of treatment per admitted patient is unclear, but it might reduce demand for acquisition or construction of new referral centers.

- Contracting for a referral center in which all clinical staff are paid at a much higher rate would create a two-tiered health care system in the Bureau, which may prove disruptive.

- Contracting also incurs a risk of disrupting the Bureau's national health care system if contractors fail to perform as expected, go out of business, or experience other types of financial instability. The cost of reassuming control of a failed contractors' operations may be substantial when the Bureau already has difficulty hiring sufficient numbers of staff for its existing referral centers.

Possible Effects of Contracting on Spending for Health Care

- Spending for prisoner health care in the Bureau is not experiencing the severe run-up that some fear. Although expenditures for health care in the Bureau have been increasing rapidly in recent years, this increase is accounted for entirely by the rising numbers of inmates under custody and inflation in the cost of health care services. Real per capita spending for prisoner health care has, consequently, remained the same between 1984 and 1989.

- The average cost per admission in the four major referral centers was higher during 1988 than in community hospitals: between $9291 and $15,236, compared to the national average of $3733 in community hospitals that year. This was the result

of very long lengths of stay in the referral centers (averaging between 49-129 days), compared to the national average of 7.2 days in community hospitals.

- The average daily costs of inpatient treatment at the referral centers are low, averaging between $65 and $248 per day during FY 1988. This was much lower than the cost of hospitalization in the free community, which averaged $523 per day during the same period. (This difference is partly a function of the large difference in lengths of stay. Patient stays in free community hospitals are shorter and more treatment-intensive, and, consequently, more costly.)

- Low wages paid to staff and the understaffing of the referral centers contribute to the low average daily cost of hospitalization.

- There is some evidence that understaffing contributes to the extended lengths of stay.

- Relieving the referral centers' recruitment bottleneck by contracting will probably result in higher labor costs, which will translate into higher expenditures for health care, unless contractors are able to substitute lower-paid professionals for higher-paid ones, or unless contractors are able to achieve greater productivity from higher-paid staff.

- The Bureau's referral centers already make heavy use of lower-paid physicians' assistants and licensed practical nurses, suggesting that the opportunities for cost reduction by staff substitution are limited.

- The cost of medical labor will rise within the Bureau of Prisons even in the absence of contracting because the supply of obligated scholars--Public Health Service physicians working off their school debts at low salaries--is drying up, which will require the Bureau to hire physicians at much higher salary levels.

- The security component of hospital costs will not be affected by contracting, except perhaps to increase somewhat, depending upon policies that the Bureau establishes to govern the contractor's custodial responsibilities and duties.

- The remaining components of hospital costs (supplies, food, housekeeping, etc.) are not likely to be reduced significantly because they are already very low, and because the referral centers take advantage of nearly-free inmate labor and a variety of services shared with the larger prison.

- Because there appears to be so small an opportunity to reduce per diem hospital costs, the only obvious avenue for reducing costs would be shortening patients'

length of stay in the referral centers. For a variety of reasons peculiar to prisons, these stays are far longer than anything found in the free community. There are substantial constraints on being able to shorten stays; unlike most patients in private hospitals, prisoners generally need to complete convalescence before returning to prison. Despite such constraints, treatment might be speeded up if staffing levels were increased.

- Firms that provide full-service management services to hospitals in the free community have not typically relied on cost-reduction but instead on aggressive marketing and revenue-generating strategies. Opportunities for these business strategies are not available in the Bureau of Prisons.

- Some benefits may be gained from contracting for specialized services. These may include departments within the referral centers that are unable to staff up sufficiently because of labor shortages, or departments that are especially amenable to cost-reduction by a national firm or local hospital achieving more advantageous economies of scale.

Endnote

1. Internal memorandum, undated.

CHAPTER ONE

THE BUREAU OF PRISONS' HEALTH CARE SYSTEM

The Bureau of Prisons' hospitals, known as "referral centers," are not autonomous units but integral parts of a larger nation-wide health care delivery system. That larger system includes outpatient and inpatient services, affording primary through tertiary care, and is provided by government employees in Bureau-owned facilities, private-sector providers working as consultants or contractors, and a large number of private and public non-correctional hospitals. This chapter will describe the system as a whole; more detailed information about individual referral centers follows in later chapters.

The Structure of the Larger System and the Role of the Referral Center Within It

As of late 1989, the Bureau's nation-wide health care delivery system consists of six prisons with referral centers and forty-eight prisons without referral centers. Inmates from any prison in the system can be transferred to a referral center for hospitalization. They also may be sent to neighboring private or public hospitals. Prisons with referral centers also utilize the services of nearby community hospitals in some instances.

The Health Services Division of the Bureau is in charge of administering all health care to the prisoners under the Bureau's jurisdiction. Under a cooperative agreement with the U.S. Public Health Service, the Bureau staffs the management team of the Division with PHS officers, and PHS officers (mostly physicians) provide much of the service in each of the referral centers. At present, the medical director of the Health Services Division is an Assistant Surgeon General in the PHS. In addition to these PHS officers, the Bureau has its own employees assigned to the Health Services Division. Both Bureau and PHS employees have correctional as well as clinical responsibilities, and all are given correctional training.

Outpatient Care

In the prisons that have referral centers on site, inmates receive outpatient services from the medical staffs of these referral centers. In the other 48 prisons, outpatient treatment is performed in the facilities on a routine basis. This includes physical examinations and visits made during the daily sick call. These services are

provided by doctors as well as physicians' assistants. The doctors include those employed by the Bureau or the Public Health Service as well as private physicians from the community who are called into the prison to provide consultations. If additional services that cannot be provided within the prisons are needed, inmates can be transported to a nearby community hospital for laboratory and diagnostic testing and consultation with other physicians. Inmates are escorted to community hospitals under guard, with correctional officers accompanying them at all times.

Table 1.1 shows the number and distribution of outpatient visits throughout the Bureau's nation-wide system during a three-month period sampled in 1988, when there were approximately 44,000 prisoners in the Bureau's custody. (The information is not complete as records for four prisons were not located at Bureau headquarters.)

Table 1.1

Outpatient Visits in the Bureau of Prisons Health Care System, Fourth Quarter FY 1988

	Outpatient Visits to BOP/PHS Staff	By Consultants Coming Inside Prisons	By Consultants Seeing Prisoners Outside Prisons	Physical Exams by BOP/PHS Staff
Referral Centers	61395 (24%)	11021 (23%)	1169 (27%)	5297 (17%)
Fort Worth	9489	6	143	796
Terminal Island	13705	618	109	1758
Butner	4763	772	43	384
Lexington	12010	5006	210	1041
Rochester	5847	3190	365	196
Springfield	15581	1429	299	1122
Other Institutions	193085 (76%)	36283 (77%)	3116 (73%)	26227 (83%)
TOTAL	254480 (100%)	47304 (100%)	4285 (100%)	31524 (100%)

SOURCE: Computed from BPmed3 reporting forms from each facility, 4th Qtr. 1988. Reports were missing for the prisons at Terre Haute, Pleasanton, Miami, and Leavenworth; the totals shown here for all "other institutions" are therefore lower than they actually were during that quarter.

During this three-month period, 320,106 outpatient visits by prisoners were recorded, 25 percent at the referral centers and the remainder occurring at other prisons. 254,480 of these visits were performed by government-employed Bureau or

Public Health Service medical personnel; 47,304 were conducted by medical consultants coming into the prisons; 4,285 visits were to consultants located outside the prison, typically at a local community hospital. 31,524 of these outpatient visits were for physical exams by Bureau or Public Health Service staff.

Inpatient Care and the Choice of Providers

Inpatient care is provided in two different types of hospitals: the referral centers and hospitals in the surrounding communities, whether public or private. The decision to route patients to the local community hospital or to transport them to a Bureau hospital for treatment is made at two levels. Once a clinical decision is made at the prison level to refer a prisoner for inpatient treatment, a Bureau-employed health service administrator makes a first-cut decision about sending him or her to a local hospital. In the case of emergencies, there may be no choice but to take the prisoner under guard to a nearby hospital. Where more latitude exists, the health service administrator weighs a number of factors to determine whether to request transfer to a referral center. These include the expected cost of obtaining the service in the nearby hospital, the security level of the prisoner, and the urgency of treatment. The local community hospital is preferred when the expected treatment is likely to be inexpensive; however, the Bureau is generally unwilling to send high-security inmates into the community and will opt for one of the referral centers. (Aside from the increased risk of an escape attempt, which may involve encounters with potentially dangerous confederates of the prisoners, many communities are understandably nervous when dangerous criminals are transported beyond prison walls.) In February 1990, 5% of all the Bureau's prisoners were classified in the high-risk security levels (5 and 6), 19% in level 4, and 66% in the lower-risk levels (1 through 3). (The remaining 10% were unclassified.)[1]

If the health service administrator determines that transfer to a referral center is either preferable or necessary, a call is placed to the "medical designator," a Bureau official located in the Washington, D.C. headquarters. This designator keeps track of the availability of beds in the various prison hospitals and is charged with choosing the treatment hospital.

Transportation by normal means (prison buses) is often a long process, requiring that inmates stay overnight in local county jails along the way as they move across the country to one of the medical centers. When quicker transport is needed, an

inmate may travel by air ambulance, air charter, or commercial airline. Transportation is made under guard, and prisoners are confined with handcuffs and leg-irons.

In some instances, prisoners transferred to the referral centers for treatment are sent outside to local community hospitals, and then returned to the referral center. For example, a prisoner sent to the referral center at Springfield for cardiac illness will be sent to a local hospital if complicated surgery is required that cannot be provided in-house. Prisoners may be sent to the Rochester referral center precisely because they are expected to enter the nearby Mayo Foundation hospitals for specialized or complicated treatment. Following treatment, patients may then be brought back to the referral centers for extended recovery.

In some cases a prisoner may be sent from one prison to another, and not to a referral center, because the second prison is near a community hospital that is better able to provide the service needed. The cost of the service may be lower, or more reliable, than what could be provided near the first prison.

The Washington-based "medical designator" is therefore the principal regulator of the system. He determines when private rather than Bureau provision will be given, which has significant cost implications. He regulates demand for each of the referral centers within the system, because demand can be "bled off" to other private or public hospitals. Thus the "market" for patients of the referral centers is very different from the market of a typical hospital in the free community. This inability to control demand (more precisely, admission) limits the capacity of the for-profit hospital management firms to use many of the management strategies they have developed for non-correctional hospitals, as shall be discussed below.

Table 1.2 shows how demand for inpatient treatment was distributed throughout the Bureau's system, in the referral centers and in local community hospitals, during Fiscal Year 1988. (The federal fiscal year runs from October 1 through September 30.) The units counted here are the average daily number of beds occupied by federal prisoners. Admissions data would show a significantly different picture as the average length of stay in a referral center is much longer than that for standard hospitals, as discussed below.

Table 1.2

Average Daily Patient Load in the Bureau of Prisons' Health Care System, FY 1988 (Estimated)

	In Bureau Institutions				In Community Hospitals			
	Type Treatment:				Type Treatment:			
	MED	SURG	PSYCH	TOTAL	MED	SURG	PSYCH	TOTAL
Butner	0	0	114	114	0	0	0	0
Lexington	34	5	23	62	3	2	0	5
Rochester	56	5	58	119	1	1	0	2
Spring.	263	151	288	702	1	1	0	2
Fort W.	6	0	0	6	0	0	0	0
Term. Is.	7	3	6	16	1	0	0	1
TOTAL REFERRAL CENTERS	366	164	489	1019	6	4	0	10
OTHER PRISONS	15	4	13	34	106	7	0	131
TOTAL BOP	381	168	502	1053	112	11	0	141

Source: Computed from the BPmed3 forms provided by all facilities; monthly forms for the entire year were tallied for the biggest four referral centers (Butner, Lexington, Rochester, Springfield); for all others, a sample was drawn, consisting of all forms for the 4th quarter FY1988, and results were annualized.

The average daily inpatient load in the system, during Fiscal Year 1988, was estimated at 1194 prisoners, 1053 (or 88%) of whom were hospitalized in one of the Bureau's prisons rather than in community hospitals. Of the 1,053 persons in the Bureau's care, 1,019 (or 97%) were held in one of the six referral centers. The remaining 34 were in infirmaries in the other Bureau prisons. (The infirmary capacity in these other prisons is limited: no more than about 70 beds exist throughout the system.) As the table shows, the referral centers sent prisoners to nearby community hospitals almost exclusively for medical treatment and surgery. Nearly all psychiatric patients were in the referral centers, mostly at Springfield (288) and Butner (114). At the referral centers, these psychiatric patients occupied the largest bloc of beds -- nearly half of all beds in the system. About a third (366) of the referral center beds were filled with medical patients, and 16 percent with surgery patients. Springfield is

the workhorse of the system. It handles about 70 percent of all patients in the referral centers (and nearly 60% of all patients in the entire system). It has by far the largest number of surgical patients (90% of the total throughout the system), medical patients (69% of the total system-wide), and psychiatric patients (57% of the total system-wide).

The forty-eight prisons without referral centers have a limited capacity for housing inpatients. During Fiscal Year 1988, as Table 1.2 shows, an average of 34 beds in these prisons were occupied each day by prisoners needing medical, surgical, or psychiatric care. These inmates are housed in small infirmaries within the prisons, either for observation or recovery from outside hospitalization (usually in local community hospitals); the infirmaries also may house inmates awaiting transfer to a referral center. Hospitalization in nearby community facilities occurs almost always for medical rather than surgical treatment, reflecting the Bureau's preference for using referral centers for surgery.

The Referral Centers

Springfield, Missouri

Built in 1933, The U.S. Medical Center for Federal Prisoners in Springfield, Missouri, is designed to house 1163 inmates, including approximately 800 medical, surgical, and psychiatric patients of all security levels (i.e., minimum-security through maximum-security prisoners). The remaining inmates are not patients but prisoners in the "general" population, who constitute a "work cadre" to support the operations of the facility. There are a total of 670 employee positions authorized. During Fiscal Year 1988, Springfield spent $28.6 million for total facility operations; $12.3 million was spent for health care services, defined narrowly to exclude the cost of security, general administration, and a variety of other cost centers.[2] This understates the cost of the hospital, however, because the entire facility exists principally for medical purposes.[3] The hospital has been accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), and the laboratory by the College of American Pathologists (CAP).[4]

Springfield provides a variety of services directly, including surgery, but it also relies on the services of consultant physicians for specialist/sub-specialist services, and on three local hospitals for the most complicated surgeries. The center does not have sufficient equipment or staffing of operating rooms and laboratories to support complicated and risky surgeries.

The center has four housing units: a medical unit (244 beds), a surgical unit (262 beds), a psychiatric unit (255 beds), and a 352-bed "general population" unit. A special "Cuban unit" of 50 beds is composed of Cuban prisoners transferred to Springfield after riots at Atlanta and Oakdale; most of the Cubans are housed with the psychiatric unit. The general population unit consists almost exclusively of a "work cadre" for the referral center. Before Fiscal Year 1987, the general population had been larger, but medical and mental health units were expanded, which shrank the size of the general population. Nearly all of this reduced general population serves as the work cadre. The mental health unit includes divisions devoted to treatment and evaluation of sentenced prisoners as well as forensic diagnosis and observation of unsentenced prisoners for the federal courts.

Lexington, Kentucky

The Bureau's major medical facility for women is located on the site of the Federal Correctional Institution in Lexington, Kentucky. At one time a hospital run by the U.S. Public Health Service and the National Institute of Mental Health, the entire complex was converted to a federal prison in 1974. The Lexington Prison now serves as the principal women's facility in the system, housing approximately 1,300 (about 40%) of the roughly 3,000 female prisoners in the Bureau's custody. The medical facility has a total of 85 beds, with 25 beds in its medical unit, 22 in its surgical unit, and 38 in its psychiatric unit. A total of $20 million was spent during Fiscal Year 1988 to support the operations of the entire facility, $6 million of which was spent for health care services.[5]

Lexington makes heavy use of three community hospitals because its surgical facilities are outdated, and because the physical structure of the referral center cannot accommodate the necessary renovation to make the facilities adequate. In addition, all deliveries/births are performed at local hospitals. This explains why Table 1.2 shows more extensive use of outside hospitals by Lexington than by the other referral centers.

Rochester, Minnesota

In 1984, the Bureau acquired a former state mental hospital and opened it in September 1985 as the Federal Medical Center, which operates as a prison and another acute care referral center. The entire prison houses almost 700 inmates. During 1988, extensive hospital renovation was completed and inpatient and outpatient services were reorganized, enabling the center to treat difficult and complex medical or surgical

cases, as well as psychiatric cases. It serves mainly low- to mid-security male inmates, although a few females have been admitted.

During Fiscal Year 1988, Rochester housed medical and surgical patients in 120 beds and mental health patients in 120 beds. In addition, there is a 48-bed treatment unit for inmates with chemical dependency problems. (Recently, the number of beds for medical and surgical patients was expanded to 180.) The facility also has a contract with the Mayo Foundation (the governing entity for the Mayo Clinic and associated hospitals) for a variety of special services. Like the Springfield facility, the ability to perform extremely risky or complicated surgeries is limited by the absence of round-the-clock physician and laboratory coverage. Such surgeries are performed in the local hospitals. Rochester is accredited by the JCAHO.

As in Springfield, the hospital's mental health unit provides treatment and evaluation of sentenced prisoners but also forensic diagnosis and observation of unsentenced prisoners for the federal courts.

During Fiscal Year 1988, the cost of operating the entire facility was $17.7 million, $7 million of which was for health care services.[6] The average daily general population at Rochester was 628; the average daily patient census in the same period was 121.[7]

Butner, North Carolina

The Federal Correctional Institution at Butner is a 421-bed prison that has a 163-bed psychiatric unit. This center provides treatment for inmates who are overtly psychotic or suicidal, or persons who are referred by the courts for study and observation. It has no beds for medical or surgical cases; prisoners requiring medical or surgical care are taken to local community hospitals or transferred to other referral centers. During Fiscal Year 1988, the cost of operating the entire facility was $11.4 million, $2 million of which was spent for health care services.[8] Butner is accredited by the ACA and the JCAHO.

In addition to the four major medical centers described above, the Bureau operates two other smaller facilities.

Terminal Island, California

The Federal Correctional Institution at Terminal Island at Long Beach, California contains a small, 37-bed regional medical facility providing short-term medical care for male prisoners in the Western region. Most of the prisoners are

general population inmates, with 638 beds for sentenced inmates and 233 for detained inmates awaiting sentencing in federal courts. During Fiscal Year 1988, approximately $13.2 million was spent to support all facility operations, including about $1.9 million for health care (mostly outpatient care, including physicals).[9]

Fort Worth, Texas

A former U.S. Public Health Service Hospital, the Federal Correctional Institution at Fort Worth, Texas, opened in 1971. The facility has 660 beds, mostly for general population. The Bureau is in the process of establishing a long-term care unit for chronic patients at the facility; for Fiscal Year 1988, there were an average of 6 such inpatients. During Fiscal Year 1988, total facility operations cost $11.4 million, with $1.9 million spent for health care.[10]

Trends in Spending for Health Care

During Fiscal Year 1988, the Bureau of Prisons budgeted $97.7 million for health care services.[11] In addition, $9.3 million was spent by the Public Health Service to support officers assigned to the Bureau.[12] Between Fiscal Years 1984 and 1989, the Bureau's share of prisoner health costs increased 113 percent, from $45.8 to $97.7 million. Table 1.3 shows the budgets for total medical spending for each of the years since 1984. Also shown are the budgeted costs of current operations as distinguished from equipment purchases.

Table 1.3

Bureau of Prisons'
Budgets for Health Care, FY 1984-1989

Year	Total Budget	Current Operations	Equipment
FY84	$45,750,283	$45,205,345	$544,938
FY85	54,964,015	51,525,209	3,438,806
FY86	62,525,186	61,602,111	923,075
FY87	76,595,422	73,583,267	3,012,155
FY88	84,943,478	82,080,292	2,863,186
FY89	97,737,419	93,856,767	3,880,652

SOURCES:
Total budgets from "Total Medical Obligations by Year 84 thru 89, as of June 27, 1989," equipment budgets from "Total Medical Equipment Obligations for FY 84 thru 89 as of June 30, 1989," both provided by the Bureau of Prisons. Current operations are computed by subtracting equipment from total budgets.

Most of the total budget was not spent for the referral centers. Rather, the major share of the Bureau's health care spending was for services provided by the forty-eight prisons that do not have referral centers on site. During Fiscal Year 1988, for example, the six referral centers accounted for 41 percent of the Bureau's total budgeted health care dollars, whereas the remaining forty-eight prisons spent 59 percent of all health care funds.[13]

Part of the increase in health care costs resulted from a growth in the numbers of federal prisoners under the Bureau's custody. During the 1984-1989 period, that number increased approximately 50 percent. Almost half of the increase in health care spending was attributable simply to having more prisoners.

Since spending for health care rose at a faster rate than the increase in the federal prisoner population, the average expenditure per prisoner increased. Between Fiscal Years 1984 and 1989, the average per prisoner rose about 40 percent, from approximately $1500 to about $2100 in current dollars. This apparent increase in per capita spending probably did not get translated into an equivalent increase in services, however, because the value of dollars spent for health care services eroded during this period. In 1989, according to the Bureau of Labor Statistics, a 1984 dollar bought 58 cents worth of health care services in the "basket" for which it tracks prices. If the value of Bureau-provided services inflated at this rate, the "real" (i.e.,

inflation-adjusted) cost of health care on a per prisoner basis actually remained stable during these five years. The value of the Bureau's services probably did not suffer the same rate of inflation as did services on the outside market, which means that the real per capita expenditure for health care probably increased a little between 1984 and 1989.

Health care spending did not grow at a faster rate than the Bureau's total budget during this period. Indeed, the rate paralleled the overall increase, so that the proportion spent for health care (10% of the total budget) remained constant over the five years. In real terms, this proportion decreased.

The Coming Demand for Health Care in the Federal Prisons

Spending will be increasing substantially for both Bureau-wide responsibilities and for prisoner health care in the near future. Since 1980, the federal prison population has been growing, first because of changes in federal drug law prosecution practices in the early 1980s, then the toughened sentencing practices that resulted from passage of the 1986 Anti-Drug Abuse Act, and finally the more general stiffening of penalties following the implementation of sentencing guidelines called for in the Sentencing Reform Act of 1984 (the provisions of which govern the sentencing of crimes committed after November 1987).[14] (See Table 1.4.) Absent dramatic changes in these laws, the Bureau's prisoner population will continue to grow quickly. The Bureau estimates that by 1995, the system will hold 94,000 inmates, compared to the 47,800 it held in 1989.[15]

Table 1.4

Average Daily Prisoner Population,
Bureau of Prisons, FY 1975-1995

1975	23,007	1984	31,394
1976	24,967	1985	33,834
1977	28,741	1986	39,008
1978	29,347	1987	42,627
1979	26,077	1988	43,835
1980	23,918	1989	47,804
1981	24,933	.	
1982	27,730	.	
1983	29,718	1995	94,000(est.)

SOURCE: Office of Research and Evaluation, Bureau of Prisons.

In addition, the inmate population will be growing older; subsequently, the demand for medical care will increase. The "graying" of the federal prison population is partly the result of the aging of the broader U.S. population. Extrapolating from general population changes in age distribution and from current prison admission patterns, the Bureau estimates that by the year 2005, 16 percent of the prisoner population will be 50 years or older, compared to 11.7 percent in 1988. This is a conservative estimate, because the federal courts are imposing longer sentences, which will result in an even more pronounced graying of the prisoner population. No research has been done to determine how the age distribution of prisoners will be affected by both changes in sentencing practices and more general aging of the U.S. population.[16]

The Bureau has projected the increased costs attending the aging of its inmates. During 1988, the Bureau spent an estimated $6.7 million for services provided by non-BOP providers to treat cardiac and hypertensive disorders among the population 50 and older. The Bureau's research staff extrapolates that by the year 2000, outside treatment for cardiac and hypertensive disorders will be $10.1 million in constant 1988 dollars.[17]

Finally, the number of inmates with AIDS will continue to increase. The Bureau began random testing in 1987 and reports a steady 2.6 to 2.8 percent HIV-positive rate. This will result cumulatively in a significant overall increase in the numbers of federal prisoners with AIDS, because prisoners will be serving much longer sentences. Because inmates with AIDS consume a large share of health care resources, the fiscal impact of this disease on the Bureau's medical budgets could be large.[18]

Planning for Expansion

The referral centers are now operating very close to full capacity. The medical designator estimates that about 10 percent of all requests for transfer to the referral centers are turned down for lack of space and are sent instead to local community hospitals for treatment. This occurs even though the referral centers are not 100 percent full, because the medical designator must retain some capacity to accommodate high-security inmates who require emergency treatment. (See Table 1.5, which shows the capacity and occupancy rates, by specialty, for each of the four largest referral centers during the fourth quarter of Fiscal Year 1988.)

To accommodate the health care demands of this growing population, the Bureau is currently considering several options for expanding its in-house capacity. One involves the acquisition of an existing hospital and then "hardening" it sufficiently so that it can serve as a prison as well. Whether or not it would be cost-effective to contract for the management of such acquired facilities, or whether to expand in-house capacity at all, or to what extent, is discussed in subsequent chapters.

Table 1.5

Bed Capacity and Occupancy Rate, by Specialty, in the Bureau's Four Principal Referral Centers, Fourth Quarter FY 1988

	Number Beds				Occupancy Rates			
	MED	SURG	PSYCH	TOTAL	MED	SURG	PSYCH	TOTAL
Springfield	139	197	294	630	212%	81%	96%	117%
Rochester	80	20	74	174	94	84	72	83
Lexington	25	22	38	85	94	8	50	52
Butner	0	0	163	163	94	84	72	83

SOURCE: BPMed3 Forms.

Purchasing Services From Outside Providers

Bureau officials remark that the current health care system is already "privatized" to a significant extent because private providers are used frequently. Indeed, about 20 percent of all prisoners seen during outpatient visits are seen by non-BOP medical personnel.[19] (Some of these providers will be public officials working for other government departments. The available data sources classify them together with private sector providers as "outside" providers.) In addition, non-BOP facilities serve a large number of prisoners requiring inpatient care.

The heavy use of "outside" medical providers is reflected in the distribution of health care expenditures. Table 1.6 shows the amounts budgeted for services provided by BOP employees and those for services of outside providers during the Fiscal Years 1984 through 1989.

Table 1.6

Total Budgets for Medical Services,
with Totals for Services Directly Provided and
Those Purchased, FY 1984-1989

Year	Total Current Expenditure	Directly Provided	(%)	Purchased	(%)
FY84	$45,205,345	$32,724,659	(72.4)	$12,480,686	(27.6)
FY85	51,525,209	37,532,597	(72.8)	13,992,612	(27.2)
FY86	61,602,111	42,706,392	(69.3)	18,895,719	(30.7)
FY87	73,583,267	50,901,574	(69.2)	22,681,693	(30.8)
FY88	82,080,292	57,103,360	(69.6)	24,976,932	(30.4)
FY89	93,856,767	61,188,736	(65.2)	32,668,031	(34.8)

NOTES: Total current expenditure is defined as budgeted cost of health care services (i.e., total "decision unit" (DU) B amounts, minus budgeted amounts for equipment). It represents, therefore, the cost of operations distinct from capital acquisition. "Total purchased" represents all charges to the BOP for services obtained from non-BOP providers. Data were not yet available for the 4th Qtr of 1989; amounts were extrapolated from data from other three quarters of that year.

SOURCES: Computed from data provided by the Bureau of Prisons.

Between Fiscal Years 1984 and 1989, spending for purchased medical services grew 161 percent, from $12.5 to $32.7 million. During the same period, spending for

directly provided care increased less rapidly---87 percent, from $45.2 to 93.9 million. The proportion of services bought has consequently been growing, from 28 percent of the total to 35 percent, during this five-year period.

These increases reflect increased spending for two different types of services: consultants coming into the prisons, and services purchased when the prisoners travel outside to local community hospitals and physicians. As shown in Table 1.7, the cost of services purchased from community hospitals rose from $9.3 million in FY 1984 to $23.3 five years later--an increase of 151 percent. The cost of consultants coming into the facilities increased even more rapidly, from almost $3.0 to $9.3 million during the same period, a 210 percent increase. Throughout this period, about three-quarters of all purchased services were for services provided in local hospitals rather than by consultants coming into the prisons.

Table 1.7

Budgets for Outside Medical Services:
Comparing Amounts for Services in Community Hospitals and
Amounts Budgeted for Consultants Coming into
Prisons or Referral Centers, FY 1984-1989

Year	Community Hospital Services	In-Prison Consultant Services
FY84	$9,513,290	$2,967,396
FY85	10,162,427	3,830,185
FY86	14,043,556	4,852,163
FY87	16,397,298	6,284,395
FY88	17,339,308	7,637,624
FY89	23,287,824	9,380,207

SOURCES: Bureau of Prisons data. Community hospital services identified as DUB25 costs; these include both outpatient consultations when the prisoner had to travel to the community hospital, as well as inpatient services. Existing data provide no way to distinguish between the two types of charges. In-prison consultant services identified by DUB50(250CN) codes.

The rising cost of consultants coming into prison reflects inflationary increases in medical costs, a rising demand for services because of growing federal prisoner population, and also a shortage of BOP employees to provide the needed

services (discussed more fully below). Whereas 10 percent of the total cost of in-prison medical labor during Fiscal Year 1984 went to purchasing consultants' services, by Fiscal Year 1989 that proportion had risen to 17 percent.[20]

The increased spending for community hospitals also reflects inflation in medical costs and the increase in the numbers of federal prisoners under custody. In addition, it also may result in some measure from an inability of the referral centers to accept prisoners because of insufficient bed-space. In May of 1989, for example, only 76 percent of all requests for transfer to a referral center were accommodated. Although the data do not show what happened subsequently, some proportion of these prisoners were sent to community hospitals instead.[21]

Summary

In summary, the principal strains on the current health care system appear to include:

- growing expenditures for health care,
- an increasing reliance on non-Bureau providers, the cost of which is inflating rapidly and is difficult to control,
- a rising demand for health care because of a growing federal prisoner population and an expanding proportion of older and sicker prisoners needing more services and more expensive treatments,
- the necessity of finding more beds in the system, either in Bureau or non-Bureau hospitals, or reconfiguring the current system more efficiently.

It is important, however, to place these cost-related strains in perspective. Despite an apparent increase in average expenditure per prisoner, when adjusted for inflation, the Bureau's per capita expenditure for health care has remained fairly stable over the past five years and has not grown at any faster rate than the Bureau's total budget.

Endnotes

1. This classification of inmates is based on an objective assessment of their propensity for involvement in serious rule infractions, especially violence and escape. A higher security level rating represents a greater risk of involvement in serious misconduct. The percentages listed here reflect the proportion of inmates in each security level group. Ten percent of all inmates were not assigned a risk level. Data from Federal Bureau of Prisons, Research and Evaluation Unit, May 1990.

2. "Obligations by institution by decision unit for major medical institutions for fiscal year 1988," accounting run provided by the Bureau of Prisons. "Health care services" are defined as decision unit B costs. Included in these figures are purchases of equipment.

3. See Chapter Two for estimates of expenditures for inpatient and outpatient costs.

4. "Fact Sheet: U.S. Medical Center for Federal Prisoners," undated.

5. "Obligations by institution by decision unit for major medical institutions for fiscal year 1988," accounting run provided by the Bureau of Prisons. This includes purchases of equipment.

6. "Obligations by institution by decision unit for major medical institutions for fiscal year 1988," accounting run provided by the Bureau of Prisons. This includes purchases of equipment.

7. Because Rochester makes a distinction between inpatients and outpatients among those held at the referral centers, and because all other referral centers call them all inpatients, these daily census figures may not be comparable.

8. "Obligations by institution by decision unit for major medical institutions for fiscal year 1988," accounting run provided by the Bureau of Prisons. This includes purchases of equipment.

9. "Bureau of Prisons Obligations and Per Capita FY 88, as of 9/30/88," provided by Jim Jones. Because these figures are from an earlier accounting run than those shown the facilities described above, they may not reflect a final tally of expenditures.

10. Ibid.

11. "Total Medical Obligations by year 1984 through 89, as of June 27, 1989," provided by the Bureau of Prisons. This amount includes expected purchases of equipment.

12. Provided by Rhonda Ward, PHS/Bureau of Prisons.

13. Computed from "Bureau of Prisons Obligations and Per Capita FY 1988, as of 9/30/89." The cost of central office health care operations ($8,054) was excluded in order to show more clearly the distribution of costs among prison facilities.

14. For a discussion of drug law prosecution and sentencing practices, see "Drug Law Violators, 1980-86," Bureau of Justice Statistics Special Report, (Washington,

D.C.: June 1988). For a discussion of the impact of the drug law and the sentencing guidelines, see United States Sentencing Commission, Supplementary Report on the Initial Sentencing Guidelines and Policy Statements (Washington, D.C.: June 18, 1987), Chapter 7.

15. "Projecting the Bureau of Prisons Population Through 1995," (Washington, D.C,: Bureau of Prisons, Office of Research and Evaluation, May 1989).

16. "Looking Ahead -- The Future BOP Population and Their Costly Health Care Needs," Research Bulletin, Office of Research and Evaluation, Federal Bureau of Prisons, (Washington, D.C.: January 1989). According to the American Correctional Association, "inmates aged 55 or older made up more than 3 percent (18,800) of the total population (597,000) of federal and state prisons" in 1988. By the year 2000, Professor Chaneles of Rutgers has estimated there will be about 125,000 inmates over age 50 of whom 50,000 will be older than 65. See Criminal Justice Newsletter, November 15, 1989, p. 5.

17. Ibid. Again, note that this estimate does not account for the additional aging of the prisoner population that will result from longer imposed sentences.

18. Memorandum from Steve Dann, Bureau of Prisons Health Services Division, to Dave Sweda, dated 13 June 1989.

19. Computed from Table 1.1 above.

20. Computed from Bureau of Prisons budget data. The total cost of direct labor provision for medical services includes here the salaries and benefits of those medical personnel charged under decision unit B, minus the overtime charges by correctional officers that were charged to medical purposes. Consultant charges were identified by DUB50(250CN) codes.

21. Cited in a memorandum from Steve Dann to Dave Sweda, June 13, 1989.

CHAPTER TWO

DO THE REFERRAL CENTERS PRESENT OPPORTUNITIES FOR COST CUTTING?

To assess the odds of whether the private sector will be able to improve the efficiency of any or all of the referral centers, and thereby lower their costs, it is helpful to understand what services at these centers now cost. It is also useful to know what factors determine these costs and how easily changed these factors appear to be. This information strengthens our ability to assess whether various forms of privatization are likely to reap lower costs, and whether such results might be obtained by other means as well.

To assess the size and nature of the cost-cutting opportunities at the four largest referral centers (Rochester, Springfield, Lexington, and Butner), budget data were obtained and examined. (Budget data rather than expenditure data were used in these analyses, although we refer to "expenditures" or "spending." Budgeted dollars are therefore used as proxies for expenditures in the following pages.) These data are far from perfect, limiting the ability to make comparisons across sites and with the free community hospitals. Nevertheless, they do suggest that the per diem hospital costs are already quite low, that patients' lengths of stay are long, and that little or no potential exists for savings by internalizing out-referrals to free community hospitals.

Table 2.1 estimates the average expenditure per patient admitted to each of the referral centers during fiscal year 1988, counting only the medical and surgical patients in all but Butner, and psychiatric cases only in Butner. Psychiatric cases are excluded from Springfield, Rochester, and Lexington because their stays are quite prolonged, on average, and present a different demand for treatment than do medical and surgical patients. As indicated in the earlier section, Butner's patients are admitted only for psychiatric reasons, which is why the average length of stay there is so long.

Table 2.1

Average Length of Stay and Total Estimated Cost per In-Patient Admission, by Referral Center, FY 1988

	Average Length of Stay (Days)	Estimated Average Total Cost
Springfield: (med/surg)	129.3	$11,831
Rochester: (med/surg)	48.9	10,084
Butner: (psychiatric)	145.6	9,391
Lexington: (med/surg)	61.5	15,236

NOTE: Rochester referral center estimates are weak because of different procedures used there for counting patients. For all, cost is computed by multiplying average daily expenditure for all patients in the referral center by average length of stay. Psychiatric patients in all but Butner excluded.

SOURCES: Length of stay computed from BPMED3 and BPMED12 reports. (See Table 2.2 below for estimates of average daily cost.)

It is important to understand what these estimates do and do not represent:

- They include costs of all medical care to inpatients, whether provided inside the facilities by government employees, by consultants coming into the facility, or by non-Bureau providers in local community hospitals beyond the prison walls. These "outside" costs are included because the services they purchased were intrinsic elements of the treatment of patients referred to the prison hospitals for care, and because the existing accounting system does not permit distinguishing the amounts spent for inpatient care in local community hospitals from care by outside providers to referral center inpatients.

- They do not include any costs of the capital assets used, unlike charges from outside hospitals. No data are available that can be used to value current assets.

- These estimates were drawn from reports that are submitted to the central headquarters from the referral centers, and there appear to be inconsistent rules for reporting patient counts from one facility to the next. The daily costs for Rochester

are probably overestimated because officials there do not count in their tallies of hospitalized patients persons they label "outpatients" even though they are hospital patients rather than general population prisoners.[1]

- Estimates of expenditures for outpatient clinic services to inmates in the general population are excluded. (See Table B.2 in Appendix B for a discussion of how these expenditures were estimated.)

- Because expenditure data are not available for individual patients, or for types of cases, the estimates for medical/surgical patients in the Springfield, Lexington, and Rochester centers do not represent actual averages for only medical/surgical patients. These data were computed by estimating the average daily expenditure for all patients in each referral center and then multiplying this average by the average length of stay for only medical/surgical patients. Because psychiatric treatment is probably less expensive on a per diem basis, the actual cost of medical/surgical treatment is probably higher than the estimates shown here.

The variations in total cost per inpatient admission result from differences in average daily cost per patient and the average length of stay in the referral center, discussed below.

These expenditures are substantially higher than the national averages for admitted patients. During 1988, according to the American Hospital Association's annual survey, the average expenditure by non-federal short-term general hospitals was $4,194 per admission.[2] If one excludes 11 percent of this amount as the share of the expense that represents the approximate cost of capital--because the expenditures at the referral centers for capital spending have been excluded--the adjusted national average was $3733 per admission.[3]

Current costs of non-correctional psychiatric hospitals are not available but can be loosely estimated from 1981 data. In that year, the average cost per day in a private psychiatric hospital was $78. The average stay was 19 days, which resulted in an average cost per admission of $1,482.[4] Assuming (1) that the cost of services in psychiatric hospitals rose at the same rates as medical services generally, (2) that capital costs were an estimated 11 percent, (3) that the average length of stay remained unchanged from 1981 to 1988, we estimate that the average cost per admission to a private psychiatric hospital during 1988 would have been approximately $2,203. This compares to approximately $9,391 at Butner.

These per-admission costs vary so greatly because hospitalization in prison is very different in practice than hospitalization in the free community. Hospitals in the free community do not have heavy security and all the attendant costs. The estimates for the referral centers do, in contrast, include a share of the overall prison's expenditures for security. (See below for an estimate of that share.) There may also be differences in the mix of cases in each class of hospital.

Length of stay is also much longer in prison hospitals. Whereas the national average length of stay for medical/surgical patients in non-federal short-term community hospitals was 7.2 days during 1988, average stays for medical/surgical patients ranged from 49 days in Rochester to 129 days in Springfield.[5] People needing hospitalization in the free community are able to complete many of the early processing stages on an outpatient basis, prior to admission. This includes diagnostic testing, filling out needed records, preoperative evaluations, and the like. These steps are taken after a prisoner is received at a referral center, which consumes bedspace that would often not be incurred were the patient not a prisoner. Similarly, prisoners are not permitted to go home shortly after medical treatment or surgery to convalesce. The only current alternative to patient status in federal prisons is "general population" status, in which one has to be able to fend for oneself. Moreover, life in prisons makes it difficult to move about in wheelchairs and crutches.

Because prisoners discharged from referral centers are transferred to other prisons, the lack of space in these other prisons makes rapid discharge difficult. The Bureau's facilities currently have no slack in bedspaces due to crowding, especially in the high-security facilities. When a prisoner is transferred to a referral center, his or her bed is given immediately to someone else, and wardens are reportedly reluctant to accept the prisoner upon discharge. Finding a bed in the system for the prisoner takes time, which stretches out the patients' stay still longer.[6]

Estimating the Daily Cost of Hospitalization

Because comparisons of per admission expenditures are complicated by these structural differences in hospitalization in the prison and free community settings, comparisons of per diem expenditures provide additional information that is revealing. Table 2.2 shows the estimated costs of inpatient care in each of the four major referral centers for all types of patients combined. (These computations count the same costs and exclude the same as do the computations shown in Table 2.1.)

Table 2.2

Estimated Average Daily Cost of Hospitalization
in Four Referral Centers, FY 1988

Springfield	$91.50
Rochester	206.22
Butner	64.50
Lexington	247.70

SOURCES: Computed from various data provided by the Bureau of Prisons. See Table B.1 in Appendix B for the complete calculations of revised estimates.

These figures are substantially higher than the ones used by the Bureau. The Bureau's method of calculation underestimates expenditures for hospitalization in the referral centers by computing an average per capita expenditure for imprisoning all inmates, both those admitted for hospitalization and those in the prison's general population. To estimate more accurately the expenditure for inpatient care in each of the four major hospitals during Fiscal Year 1988, we isolated spending for health care (called "medical" in the Bureau's accounting systems) and then allocated a portion of all other facility expenses as well. This is because the cost of treating inpatient prisoners should include expenditures for feeding and supervising them, maintaining the physical plant, and some proportion of overall administrative and other support services. (See Table B.1 in Appendix B for more detail on this estimation.)

The costs shown in Table 2.2 are substantially lower than costs in free community hospitals. During 1988, the national average daily expenditure for hospitalization in non-federal short-term community hospitals was $581.[7] Adjusting for the approximate share of this cost that represents spending for capital, the daily average was $523, compared to $65 to $248 in the four referral centers.[8]

A better comparison of hospital-related expenses excludes the cost of providing security to prisoners (although this is biased also by the large differences in the lengths of stay.)[9] Table 2.3 estimates the share of the average per diem

expenditures devoted to medical labor, to prisoner security, and to all other hospital functions.

Table 2.3

Estimated Average Daily Expenditures for Hospitalization in Referral Centers by Type of Expense, FY 1988

	Medical	Security	Hospital	Total Average Daily Exp.
Butner	$32.45	$11.13	$20.91	$64.50
Lexington	$183.55	$8.36	$55.79	$247.70
Rochester	$140.54	$14.58	$51.09	$206.22
Springfield	$41.23	$18.31	$31.96	$91.50

NOTE: Includes the all expenditures for services provided when inmates travel to outside community hospitals (counted here as "hospital" costs, even though charges by physicians seen outside are also included). Excludes expenditures for outpatient care to general population inmates.

SOURCES: Computed from data provided by Bureau of Prisons. See Table B.4 in Appendix B for full documentation.

Excluding the estimated per diem expenditures for prisoner security lowers the average daily cost of hospitalization still further, to $54 at Butner, $239 at Lexington, $192 at Rochester, and $73 at Springfield. These per diem costs are quite low, compared to general community hospitals. Although it is risky to draw inferences from such comparisons for several reasons (lack of information about differences or similarities in mixes of cases, unstandardized accounting of costs, etc.), the general point remains that the costs of providing hospitalization services in the referral centers appears to be much below the cost of hospitals in both the private and public non-correctional sectors.

The wide differences among the four referral centers in per diem expenditures may suggest at first glance that savings might be obtained by bringing costs in the more expensive centers closer to those in the less expensive centers. Further analysis indicates that these variations derive from different structural features of each referral center, and are not easily changed.

The variation in per diem expenditures for inpatients at each referral center is explained partly by differential use of non-Bureau health care providers. Referral centers vary in the extent to which they rely on consultant physicians coming into the prisons, and on outside hospitals for diagnoses, outpatient treatment, and inpatient hospitalization. Table 2.4 shows how much was spent during FY88 for in-prison consultation and outside-prison services, expressed both as a total expenditure and a per capita daily expenditure. (These per capita expenditures represent the average expenditure for such services for all patients admitted to the referral centers, whether they received services from these providers or not.)

Table 2.4

Expenditures for Services Provided by Non-Bureau Providers to Inpatients and Outpatients, Distinguishing Delivery Outside and Inside the Facilities, Per Patient/Day by Referral Center, FY 1988

	Delivered Outside		Delivered Inside	
	Total Exp.	Per Day	Total Exp.	Per Day
Springfield	$1,781,682	$6.91	$2,691,435	10.43
Rochester	6,449	0.15	2,275,611	51.56
Butner	229,230	4.04	674,245	11.88
Lexington	2,212,873	90.37	2,607,983	106.50

NOTE: Total expenditures are divided by total number of patient/days, both inside and outside days combined.

SOURCES: Computed from data provided by the Bureau of Prisons. "Outside delivery" expenditures are identified as DU B25 expenditures in Bureau accounts; inside consultants as DU B50/250CN. See Table B.3 in Appendix B for full computation.

The high expenditure for health care at the women's referral center in Lexington reflects the heavy use of outside consultants coming into the facility as well as nearby hospitals. Indeed, $197 of the total $291 average per capita expenditure is spent for services by non-Bureau providers. Much of this spending seems difficult to avoid. The Bureau has not been able to recruit a full-time physician specializing in obstetrics/gynocology, or a dermatologist, and consultants are used instead. Because of

the relatively small patient population at Lexington, and the resulting low demand for special services, it is not economical to hire a full-time orthopedist, cardiologist, urologist, or radiologist, among others. Bureau officials also report that many of these consultants charge rates that are generally higher than the cost to the Bureau of government-employed physicians, often in the $150-300,000 per annum range.[10] This pushes up the average.

Spending for services outside the prison also are difficult to avoid for other reasons. Women are taken to local hospitals for birthing their babies, as they are for all but the most routine "lumps and bumps" surgery. The facility at Lexington is old and not capable of supporting more complicated in-house surgery, and the referral center is not staffed with the round-the-clock physicians, labs, blood banks, and other professionals that would be needed. More extensive use of local community hospitals increases the average cost per treatment (expressed either in per diem or per admission terms), because treatment in these local hospitals is more costly, on average, than treatment in the referral center. Table 2.5 shows the average cost per day of hospitalization in the local community hospitals near each of the four major referral centers during fiscal year 1988.

Table 2.5

Estimated Average Daily Expenditure for Hospitalization in Referral Centers (Including Outside Costs) and In Nearby Community Hospitals, FY 1988

	Referral Centers	Nearby Hospitals
Springfield	$91.50	$1,372.70
Rochester	206.22	2,178.90
Butner	64.50	1,502.20
Lexington	247.70	1,352.30

NOTE: Referral center costs include no estimate for capital, whereas nearby hospital costs include a capital component.

SOURCES: Computed from various data provided by the Bureau of Prisons in BPMed12 reports.

As Table 1.2 in Chapter 1 shows, Lexington had an average of five women prisoners in local community hospitals on any given day during fiscal year 1988, compared to two at Springfield, two at Rochester, and none at Butner. This utilization of local hospitals, in combination with their higher costs, explains in substantial detail why Lexington's per diem average expenditure for care is higher than the other centers.

Outside hospital costs are higher in part because the Bureau of Prisons has to transport prisoners under guard to the hospital as well as guard them there. Maximum-security inmates require several officers on guard around the clock, and others must follow the transport vehicle in a "chase car" while being moved to and from the hospital. Lower security prisoners are guarded somewhat less intensively, but still must have round-the-clock coverage. Bureau employees on these duties generally work entirely on overtime, drawing a high hourly wage. Some referral centers use contract security officers ("rent-a-cops") for low-security inmates. Because there is a lack of standardization in reporting correctional officer costs associated with inpatient stays in community hospitals, it is difficult to determine precisely what the daily costs of outside hospitalization are. We have estimated these costs using data provided by the Bureau, which are shown in Table 2.6. This table also shows how expenditures for outside hospitalization are distributed among medical labor, security, and all other hospital costs.

Table 2.6

Average Daily Cost of Hospitalization in
Nearby Community Hospitals by Type of Expense, FY 1988

	Medical	Hospital	Guarding	Total Average Daily Cost
Springfield	$181.30	$496.80	$694.70	$1,372.70
Rochester	525.10	959.10	694.70	2,178.90
Butner	151.90	655.70	694.70	1,502.20
Lexington	174.40	483.30	694.70	1,352.30

NOTES: Medical and hospital charges are taken directly from Bureau reports. Because of apparent inconsistencies in the reporting of correctional officer costs ("guarding"), we have assumed here that figures reported by Springfield approximate the actual cost in all referral centers, and we use those figures.

SOURCES: Computed from various data provided by the Bureau of Prisons in BPMED3 and BPMED12 reports.

Variations in per diem costs at the referral centers also result from differential use of outside hospitals for diagnostic testing. In smaller centers, such as Lexington, where demand is low, it is not economical to purchase expensive diagnostic equipment. Prisoners are therefore taken to hospitals under guard, at a higher cost, for outpatient diagnostic services. By consolidating patients, it sometimes becomes economical to purchase certain diagnostic equipment for in-house use. For example, when Lexington was converted from a mixed to all-women's facility, the demand for mammography exams increased sufficiently to warrant purchasing the necessary equipment. The center administered 600 mammograms the first year, and at the 800 point, the equipment paid for itself. Whether or not it is possible to "make" still other types of services rather than "buy" them outside was not determined.

At Rochester, the expenditures for in-prison consultants reflects the heavy use of Mayo Clinic physicians. Because the physical plant at Rochester is more modern than Lexington's, the staff there is able to perform all but the most complicated

surgeries in the referral center. (This also explains, in part at least, the high average daily expenditures for outside hospitalization in Rochester, shown in Table 2.5.) This reduces substantially the reliance upon outside services in local hospitals. The remaining expenditures for "inside" health care are still substantially higher at Rochester than at other facilities, however ($166 versus $75 at Springfield, $59 at Butner, and $94 at Lexington). This may reflect the fact that Rochester was able to staff fully its higher-level professional positions because of the advantageous labor pool near the Mayo Clinic, and perhaps due to a higher ratio of staff to patients during FY88, which has changed in recent months with an increase in average daily patient cases.

Finally, Butner's low expenditure reflects the patient mix there: all prisoners in the referral center are psychiatric patients. Prisoners needing medical or surgical care are either seen by consultants coming into the facility, or are sent to an outside hospital, or to one of the two other referral centers (Rochester or Springfield).

How Easily Changed Are the Determinants of Referral Centers' Costs?

The low per diem cost of hospitalization in the referral centers does not signal obvious opportunities for contract management firms to make significant cost-savings. One must be careful to draw conclusions of this sort, however, because one cannot make easy inferences about relative efficiency when comparing the referral per diem costs among referral centers, or among the referral centers and hospitals in the free community. Because the lengths of stay in the referral centers are so radically different from those found in community hospitals, per diem comparisons are distorted. (The long stays in the referral centers for waiting and convalescence drive down the per diem averages, compared to local hospitals, where in-hospital treatment is concentrated into fewer days.) With these caveats in mind, this section examines the potentials for savings in each of the functional areas in the referral centers (security, clinical/medical, and other hospital operations), as well as the possibilities of increasing productivity in them.

Spending for Security

There are no obvious reasons to think that spending for security staff in these centers will be reduced by contracting for the either the management or the operation of the clinical functions. Indeed, it is possible that security costs will increase if anything more than management of the clinical functions is contracted. As discussed

below in Chapter Three, all health care workers currently employed by the Bureau supervise inmates assigned to work details in the referral centers, exercise a number of custodial duties, and are expected to respond to "custodial emergencies," such as fights, escapes, riots, etc. In addition, they are permitted walk unescorted throughout the prison and to carry keys. Consultants and contractors, on the other hand, are not given such broad responsibilities. According to the Chief of Operations for the Medical Services Division, the use of outside contractors actually induces inefficiencies, because Bureau-employed PAs are required to escort consulting physicians, carrying keys for them, and locking and unlocking doors and files.[11]

Dr. B. Jaye Anno, who reviewed an earlier version of this report, remarked that this argument is "specious." The likelihood that security staff costs will rise upon contracting for clinical staff rests on the assumption that current policies regarding contractors' privileges and duties are unchanged. If contractors' privileges are broadened to encompass those now held by BOP employees, there would be no reason to expect higher spending for security staff.

To get some estimate of the additional expenditure that might be required for security services in a referral center if all clinical services were contracted to a private firm, the administration at the Lexington center was asked to determine how many additional posts for correctional officers would have to be created at the center. They were asked to assume that the policies regarding carrying keys could be relaxed, but no changes in policies regarding inmate supervision and escort. They estimated that an additional twenty-six authorized positions would be required, twenty-three of which would be at the GS-7 level, and three at the GS-11 level. The latter three include a training lieutenant to cover the training of all employees, and a hospital lieutenant to monitor staff, count needles and syringes, and for other custodial responsibilities. The costs of these additional posts would be substantial. The middle of the GS-7 range currently pays a salary of $22,100 per full-time equivalent; the middle of the GS-11 range pays $32,700 (both salaries exclude benefits). The administrators suggested also that the use of outside hospital facilities might also increase because a contractor's concern for protecting itself against liability, which would create an additional demand for correctional officer escorts.[12]

Clinical Staff Costs

As Table 2.3 shows, average per diem expenditures for medical labor in the referral centers was quite low in FY 1988--between $32 per day at Butner and $184 at

Lexington, which includes any expenditure for consulting physicians coming into the centers. This was substantially lower than in community hospitals. In 1988, the national average was $307.61, which included spending for all categories of labor, not just clinical staff.[13] This was also lower than the charges for medical staff services for inpatient treatment in the community hospitals used by the referral centers. Table 2.6 shows that medical labor charges in those hospitals ranged between an average of $152/per inpatient day (near Butner) to $525 (near Rochester) during FY 1988.

Contractors would have to pay medical staff higher wages than the Bureau currently pays, or they would more than likely suffer the same recruiting and retention problems that the Bureau faces. Medical labor costs would therefore increase, pushing up the per diem expenditure of hospitalization in the referral centers correspondingly, unless there were changes in the way the centers were staffed.

One obvious strategy for reducing labor costs would be to make more extensive use of lower-paid physicians' assistants in lieu of physicians, and licensed practical nurses in place of registered nurses for many duties. Our review of staffing shows, however, that the Bureau's referral centers already make heavy use of PAs and LPNs, and no evidence was found that any of the referral centers are too richly staffed with expensive personnel. Indeed, the opposite is true: most of the centers are currently understaffed, which contributes to the low per diem expenditures for hospitalization.

If the referral centers were fully-staffed, and if these staff were compensated at currently-permitted levels, spending for medical labor in Bureau-managed centers would be substantially higher, although this would be offset by saving an undetermined amount that is currently spent for consulting physicians who are used to fill gaps created by staff vacancies. If compensation were raised to market levels, the additional expenditure would be still higher if the centers were fully staffed. Unless contract management firms could hire doctors at below-market rates, it does not seem possible that those firms would create savings in labor costs.

Other Hospital Costs

Spending for all other costs associated with the referral centers is very low, as Table 2.3 shows. During FY 1988, those expenditures averaged, on a per diem basis, between $21 at Butner to $56 at Lexington. (The differences among referral centers resulted in part from the inclusion of charges for treatment outside the facility, in local hospitals. This explains why Lexington's average expenditure was higher than the

others.) These costs are lower than the community hospitals'. As Table 2.6 shows, the hospitals near the referral centers spent an average of $483 to $959 per day during FY 1988 for all functions other than medical personnel services. The referral centers reap an enormous benefit from the large pool of nearly free labor that prisoners provide. A contract management or services firm would probably be able to continue using the services of the prisoners if it assumed control of clinical duties in a referral center, which would keep these costs down. A firm might also be able to bring some other costs down, but the already-low levels suggests that there may be relatively little opportunity for making dramatic savings in this category of expense.

Increasing Productivity

When the expenditure for hospitalization in the referral centers is computed on a per admission basis, different cost-cutting possibilities are suggested. If length of stay were shortened, the average cost per treatment would be reduced if new patients were admitted to the referral centers as soon as other patients were transferred back to other prisons. If beds were not filled quickly, and shortened stays resulted in a drop in occupancy level, few savings would be generated because most of the costs of operating a referral center are fixed. (The cost per admission would simply rise, proportionately.) If increasing the speed with which the centers process patients reduces the use of outside hospitalization that is induced by a lack of space in the centers, savings would be obtained.

If length of stay remains at the same high levels, and additional hospital space is acquired to accommodate the demand that will exist once the four major referral centers become fully occupied (which is likely to occur within a few months), the average cost per treatment will remain approximately the same in these four referral centers. Rather than speeding up patient processing and making room for the coming increases in demand, that demand will be shifted onto another center, with all the fixed costs associated with it.

This raises questions of how easily changed the length of stay is in the referral centers, and whether contract management firms are likely to be able to reduce them.

Causes of Long Stays

As discussed earlier in this chapter, stays in prison hospitals are longer than in community hospitals in part because of the prisoners' inability to live at home while being prepared for hospitalization and while convalescing afterwards. There are other

reasons as well. The need to find a bed in another prison after discharge becomes more difficult when such beds are in short supply, and patients who are well continue to sit in the referral center while their transfer is being arranged. The actual transfer itself also requires waiting. Prisoners are not simply told to check out of the referral center when they are well, but must await a federal correctional transport bus or plane to pick them up. To make such transportation economical, the referral centers wait until groups of prisoners are ready, rather than taking them one by one as soon as they are ready. The long lengths of stay in the centers result, therefore, from system-wide structural constraints that are not within the power of the referral centers' managers to affect. Contract management firms would probably fare no better at getting the system to respond more quickly.

In addition, it appears that delays also result from understaffing. Being processed in one of the referral centers involves having a number of tasks accomplished by a variety of different staff. At each stop in the process, prisoners wait in a queue for services. The length of that queue depends upon how many staff persons there are at each stop, as well as how many patients need the service. Upon admission, clerks have to take information from prisoners and their records for the centers' records. Prisoners receive physical examinations, lab tests, and surgical procedures. If the physician in the referral center determines that a consultation with a specialist is needed, the prisoner either awaits the day that the specialist routinely comes to the facility or goes outside to a local hospital. If the prisoner waits for the routinely scheduled visit, there may be a backlog, requiring a few weeks to see the specialist. If the specialist requests diagnostic tests, those tests have to be scheduled, and then the prisoner must await yet another visit from the consultant to have the results interpreted. If the prisoner is to be taken outside the facility to a local hospital for a consultation, or for diagnostic testing, there is a queue for such visits because correctional officers are needed for escorts. If staff are in short supply at any stage, the queues and the waiting times between services are lengthened. At present, there is a shortage even of clerical staff in the centers, which creates a fifteen to eighteen day delay at Springfield, for example.[14]

A comparison of staffing ratios and length of stay at Rochester provide some indirect support to the argument that length of stay and staff/prisoner ratios are correlated with one another. Table 2.7 shows the census of medical and surgical patients at the beginning of each month, from October 1987 through November 1988; the number of Bureau-employed medical staff per each patient; and the average length

of stay of all those persons discharged during the month. (Unfortunately, this does not reveal the numbers of consulting physicians who came into the facilities to provide services; the ratio of staff to prisoners is therefore underestimated by some undetermined amount.) In October and November of 1987, the number of patients in the referral center was in the low 40s, and there were two medical staff to each patient. The average length of stay of all patients discharged in those months (and in the month following) was short--between 17 and 40 days. There was a large influx of patients in November 1988, more than doubling the population. By February, the census at the beginning of the month had tripled the October/November numbers, the numbers of prisoners reached a plateau in the 120-130 range. During this period, the ratio of staff to prisoners also dropped. (The referral center started this period with a substantial number of vacancies but filled them in progressive fashion throughout the fourteen months shown here.) With the influx of new patients in November 1987, the ratio dropped from more than two staff per one patient to slightly less than one per patient. The effect of the doubling and tripling of the prisoner population began to show up in lengthening stays for those discharged in the winter months of 1988. By June of 1988, the average length of stay had tripled the October 1987 rates--126, on average.

Table 2.7

Relationship Between Numbers of Medical/Surgical Patients and Average Length of Stay: Rochester

	Census at Beginning of Month	Number of Medical Staff per Patient	Average Length of Stay (Days)
October 1987	41	2.10	40
November	42	2.12	31
December	102	0.91	17
January 1988	124	0.77	50
February	119	0.82	76
March	118	0.86	73
April	108	0.95	65
May	123	0.89	105
June	129	0.90	126
July	130	0.89	147
August	132	0.89	127
September	121	0.91	124
October	90	1.30	126
November	112	1.08	96

Note: Average length of stay defined as average days in referral center for all persons discharged during month.

Source: Memorandum from Brenda Timm to Dr. Grogan, Federal Medical Center at Rochester, January 20, 1989, and telephone interview with Brenda Timm, December 1989; staff data computed from BPMED18 reports.

A longer data series would be more revealing, as would comparisons with other institutions, but the data in Table 2.7 generally supports the contention of Bureau officials that an increase in numbers of staff would cut patient stays. The Chief of Operations for the Medical Services Division estimates that if the referral centers were all fully staffed, the length of stay could be reduced by 30 to 50%. If all bottlenecks in the system were cleared--including the constraints imposed by transportation problems and overcrowding in the Bureau's prisons--he estimated that the average length of stay would be no more than 20 days, on average.[15]

Stays for psychiatric cases are more inflexible. There are three categories of such cases in the referral centers: commitments for observation, chronic, and acute cases. Prisoners in the first category are committed to the Bureau by the federal courts for observation, and these are required by law to stay at least 35 to 50 days. Chronic cases stay in the centers for long periods of time because they are unable to be moved back into the general population, not because of queues in needed services but because of their disabilities. Acute cases may be able to be moved through the hospitals more quickly, but like chronic cases, the speed of their recuperation is not influenced strongly by the type and speediness of treatment.

Finally, the ability to reduce spending by shortening the length of stay is offset to a degree by the fact that prisoners discharged do not stop costing the Bureau money. All prisoners go back to general population in various facilities, and during the FY 1988, the average per diem expenditure for imprisonment in the Bureau was estimated at $42 per prisoner. The potential savings therefore range, on average, between $34 and $249 per day, depending upon the referral center from which prisoners are discharged.

Summary

Although the quality of the available data do not permit a powerful and sophisticated analysis of service delivery costs and their determinants, the analysis presented here suggests the following:

- The average daily cost of inpatient treatment at the four major referral centers is quite low (between $65 and $248 during FY 1988), and substantially lower than the national average daily cost for hospitalization in the free community ($523 during the same year). This comparison is somewhat misleading, however, given the longer lengths of stay in the Bureau's centers, which reduces the average daily cost in them.

- Because of the longer lengths of stay, the average cost per admission in the four major referral centers during FY 1988 was higher than in the free community hospitals: between $9,291 and $15,236 for the referral centers, compared to the national average of $3,733 in community hospitals that year. (Hospital stays averaged between 49 and 129 days in the referral centers, compared to the national average of 7.2 days in community hospitals.)

- The comparatively low average daily cost of hospitalization in the referral centers result in part from the lower wages paid to staff and to understaffing.

- Alleviating the understaffing will probably result in higher labor costs, and in higher per diem costs of hospitalization.

- Security costs associated with guarding the referral centers will probably not be reduced by contracting for clinical and/or management services, and may even be increased somewhat.

- The remaining costs associated with hospitalization (supplies, food, housekeeping, etc.) are very low, which suggests little room for significant cost-reduction.

- The single obvious opportunity for reducing costs is to shorten patients' length of stay in the centers. This may occur as understaffing is alleviated. Other possibilities for shortening stays by increasing hospital capacity, and for creating step-down convalescent care units, are discussed below.

Endnotes

1. That is, the Rochester administrators distinguish between hospital inpatients, hospital outpatients, and outpatients in the general population. Other referral centers visited to do not distinguish between the first two categories and consider them all inpatients.

2. American Hospital Association, Hospital Statistics (Chicago: American Hospital Association, 1989), Table 1.

3. Killard W. Adamache, Trends in Capital Costs Under Prospective Reimbursement (Cambridge, MA: Health Economics Research, Inc., October 19, 1988), pp. 2-6, Table 3. This figure is for FY 1986, the most recent available. This represents depreciation and interest expenses for all buildings, fixed and moveable equipment.

4. Carl Taube and Sally Barrett (eds.), Mental Health, United States, 1985 (Washington, D.C.: National Institute of Mental Health, 1985).

5. National data from American Hospital Association, Hospital Statistics; Rochester and Springfield figures computed from data provided by the Bureau of Prisons.

6. Steve Dann, August 1989 interview.

7. American Hospital Association, Hospital Statistics, Table 1.

8. See note 3 for source of estimate for capital spending.

9. Because the length of stay in free community hospitals is so much shorter, patients in these hospitals get more intensive treatment and care during a single day, on average, than do referral center patients. This undoubtedly accounts for some portion of the difference in per diem costs between free community and Bureau hospitals.

10. Interviews with Steve Dann, August 1989; Jeanne Smith, Health Services Administrator, Rochester, November 1989; Michael Lynch, Assistant Health Services Administrator, Lexington, October 1989; and Captain Paul Goodspeed, Health Services Administrator, Springfield, October 1989. No attempt was made to collect systematic information on consultant's charges or rates.

11. Steve Dann interview, August 1989.

12. Communication from Michael Lynch, November 1989.

13. American Hospital Association, Hospital Statistics, Table 1.

14. Steve Dann interview, August 1989.

15. Ibid.

CHAPTER THREE

THE FEASIBILITY OF IMPLEMENTING A PRIVATELY-MANAGED OR OPERATED HOSPITAL WITHIN THE BUREAU OF PRISONS

How feasible it is to implement a privatization initiative depends in part on the scope of what is to be considered for contracting. In the referral centers, six principal options exist:

1. Transferring ownership, and contracting for management and operation of a referral center. This is the most comprehensive possibility.

2. Retaining public ownership, but contracting for the management and operation of all functions, including clinical responsibilities, security, food, and "housekeeping," among others.

3. Contracting for the management and operation of only clinical services in a government-owned facility.

4. Contracting for the management only of the entire clinical staff, again in a government-owned facility.

5. Contracting for top management of the clinical staff and the management and operation of one or more departments (e.g., pharmacy, laboratory, etc.) in a government-owned facility.

6. Management and operation of specific departments only in a government-owned facility.

The first two options--contracting for the ownership, management, and operation of all functions within a referral center, with or without transferring ownership to private entities--are the least feasible. No private firms provide all the services demanded. Firms do exist to operate private prisons, and others to administer hospitals, but none yet do both.[1] Two firms could team up, but there is little economic incentive to do so, because there is almost no market for administering prison hospitals.[2] (There are only a few such prison hospitals in the country, as discussed below.) More importantly, the absence of a competitive market makes the odds of becoming dependent upon a single partnership between two firms too high. (Transferring ownership in such a market environment is especially dangerous.)

Finally, contracting for the operation of an entire referral center makes little economic sense to the Bureau because these centers are parts of larger prisons (although the Springfield center comes closest to being nearly all hospital). Because

they are but parts of the larger organization, almost all of the referral centers' services are shared by the larger prison--including security, food, housekeeping, maintenance, and so forth. To have a private firm provide these services in the referral center, while the government provides the same services to the broader prisoner population, makes no sense economically.

The real choice, then, is between the latter four options. Whether it is most feasible to contract for the management, or the management and operation, of all or part of a referral center, depends upon several considerations. What follows in this chapter is a discussion of several issues relevant to the implementation of each of the four options. Subsequent chapters address considerations of cost and the effects of contracting on the delivery of health care services.

Are Private Firms Available and Interested in Managing or Operating a Prison Hospital?

Options (2) through (5) involve contracting for the top management of a referral center, in combination with different degrees of operational responsibility. At present, only one private firm has any experience either managing or operating hospitals located in correctional facilities, and this experience has been brief. In the summer of 1989, the Georgia Department of Corrections converted a 135-bed infirmary located on the site of a 600-bed prison into a hospital, now called the Augusta Correctional and Medical Institution. With two new surgical suites, the facility provides surgical procedures as well as other medical care. Correctional Medical Services (CMS), a private firm that has extensive experience in providing outpatient care in prisons and jails around the country, provides all clinical staff and management under a contractual arrangement with the Department of Corrections. No other prison hospitals under contract with private firms were identified in our survey of state and local governments.

Not only are there no other contracted facilities, there are very few prison hospitals under any form of management, apart from the six operated by the Bureau of Prisons. Nearly all state and local government corrections departments send prisoners needing hospitalization to local hospitals in the free community and do not attempt to run a hospital within prison walls. (Appendix A contains broader discussion of health care delivery and contracting at the state and local levels.) Some of these community hospitals have secure wards that are used exclusively for prisoners, but they are still part of a larger hospital that is administered as any other hospital. In these instances,

the locked wards share with the "free" sections of the hospital all clinical staff, diagnostic services, administrative overhead, and so forth. The security staff is an extension of the state or local corrections department. Some local governments (e.g., Los Angeles County) operate small skilled-nursing facilities, and a handful of state correctional departments operate hospitals exclusively for prisoners. California, for example, has a facility in Vacaville for the State Department of Corrections. The Texas Department of Correction owns a facility in Galveston, Texas, on the grounds of the University of Texas Medical Branch and contracts with the Medical Branch for professional services. All of these are staffed by public employees.

Because the number of prison hospitals is so small, an industry with numerous experienced firms will probably never emerge. Some firms that have contracted with a variety of state and local government correctional departments for outpatient care may--like CMS--be interested in bidding on an offer to contract for professional services and management of a Bureau of Prisons hospital.

There does exist a substantial industry providing management services to hospitals, but these hospitals have all been in the free community. These firms have developed their expertise operating hospitals in a very different environment. The Bureau's hospitals, because they are so enmeshed in a larger network of organizations, do not present opportunities for the many of the managerial innovations that these private firms have employed in free-community hospitals, as discussed below in Chapter 4. These constraints may make the prison hospitals uninteresting to these firms.

A Local Hospital as Contractor

One possibility is not to rely at all upon either the national correctional health care firms or the hospital contract management industry, but instead to have a free community hospital near a referral center assume managerial control of the center. This would be somewhat similar to what the Bureau currently does now in Duluth, Minnesota. A single non-profit hospital in Duluth--St. Luke's--contracts with the Bureau to provide all health care services to the prisoners in the facility, outpatient as well as inpatient. According to those interviewed, the experience has been a good one for the Bureau. The relevance of this model for the management and operation of a referral center is very limited, however. The Duluth facility does not have a referral center on site, and all inpatient care would be provided by a local community hospital anyway, whether the contract with St. Luke's existed at all. The only new service that the St. Luke's provides under the contract is outpatient care at the facility. This is a

far cry from what would be involved in contracting for the management of two of the referral centers--Rochester and Springfield--because both of these centers are hospitals rather than simply outpatient clinics.

The model might be most applicable, and most feasible, at the Lexington, Butner, Terminal Island, and Fort Worth referral centers. The Lexington referral center is limited in the type of inpatient services it delivers, and it makes heavy use of outside consultants and three nearby hospitals. As Table 1.2 in Chapter 1 shows, on an average daily basis during FY 1988, there were five women in nearby hospitals for medical or surgical treatment, compared to two patients in hospitals near the Rochester or Springfield centers. Prisoners from Lexington also are sent out to nearby hospitals for a much broader range of services than Rochester and Springfield provide in-house. During FY 1988, about two-thirds of the average daily expenditure for patients under the care of the Lexington referral center paid for services delivered by non-Bureau providers. This was a much higher percentage than at the three other major referral centers (approximately 25% at Butner, 19% at Springfield, and 25% at Rochester). Contracting with one of these nearby hospitals for a package of services that would contain inpatient services at the hospital, and services to inpatients and outpatients at the referral center, would not require the same kind of qualitative leap that would be involved in assuming control of a large, nearly full-service hospital that Rochester and Springfield represent.

One practical complication in such an arrangement would be the bundling of physicians with a single hospital. At present, the referral center at Lexington uses a wide variety of consulting physicians, and they have different preferences for and privileges at nearby hospitals. A hospital interested in obtaining a contract for all medical services would have to negotiate agreements with the necessary physicians for their services.

One feature of the Lexington facility that makes it especially amenable to this kind of contractual arrangement is the restriction on being able to transfer women to either Springfield or Rochester for treatment. Because the latter two centers are for men, Lexington does not have the inexpensive option of transferring women to them for treatment and must depend instead upon the local community hospitals (which, for some services, may be less expensive than transferring to Springfield or Rochester).

The referral center at Butner is also more suited to this kind of arrangement than Springfield or Rochester because no medical or surgical treatment is done there. All inpatient medical/surgical care is provided either by local community hospitals or

by one of the other referral centers. Unlike Lexington, however, Butner has the option of transferring patients needing medical or surgical inpatient treatment to either Springfield or Rochester. As long as any beds are available in these latter two facilities, or in any other similar referral center that the Bureau may establish in the future, the marginal cost of transferring prisoners to these facilities and treating them will be lower for many types of services than in the local community hospital. (The relative costs of treatment at the referral centers and nearby community hospitals were discussed above in Chapter 2.)

The smaller referral centers at Fort Worth and Terminal Island may also be suited to such a contract for similar reasons as Butner: they already depend on nearby hospitals for a wide variety of medical and surgical services because they cannot provide them directly. But like Butner, they also have the option of transferring prisoners needing more extensive or complicated inpatient treatment to Springfield or Rochester, the marginal cost of which is less than for treatment in nearby hospitals except for the least expensive types of treatments.

Whether or not a contractual arrangement with a single hospital is feasible at all depends upon whether there are local hospitals interested in providing the service. Whether it will be economically attractive to the Bureau depends in part on how many potential competitors there are in each area. In Rochester, the Mayo Foundation might have an interest in administering clinical services at the referral center. (This is pure speculation; no attempt was made to determine the nature or extent of private sector interest in managing the referral centers.) There is little reason to think that such an arrangement would be economically attractive to the Bureau, however. The Mayo Foundation has a near-complete monopoly on hospital services in the area, owning not only the Mayo Clinic but also the two major hospitals in Rochester. In such a non-competitive environment, the Bureau would have little negotiating leverage over the terms of the contract's payment provisions once it decided to contract out for professional clinical services.

Springfield and Lexington both operate within a somewhat more competitive environment. In Lexington, Kentucky, there are five private general purpose hospitals and one university hospital. In Springfield, Missouri, there are three private general purpose hospitals. Butner operates in a non-competitive environment, there being only one hospital in the city. The potential for reducing costs by such a contractual arrangement in these referral centers is examined in Chapter 4.

Testing Market Interest With An RFP

Because of the idiosyncratic nature of the Bureau of Prisons hospitals, the only reliable way of assessing private sector interest in a management contract would be to issue a request for statements of "Qualifications and Interest" from prospective contractors. This should specify precisely not only the referral center and the activities that would have to be provided, but also the nature of the larger Bureau-wide health care system, the method by which assignment of hospital beds is made, and the constraints on being able to transfer prisoners out of the hospital.

Contracting for Specific Departments

Whether it is feasible to contract for the management and operation of specific departments at one or more referral centers, in addition to or in the absence of a broader contract for overall referral center management, depends on much narrower considerations. Departmental contract management (or "specialty contract management") is the fastest-growing segment of the hospital contract management industry. Indeed, most contracts in hospitals are for departments only, and not for full-service management.[3] It is possible that specific services that the referral centers cannot now provide themselves might be purchased from a national firm. Or such services might be obtained through a contract with a local hospital, which might be able to achieve advantageous economies of scale if the referral center's demand is coupled with the community hospital's demand. (The necessity of providing the service at two sites--the local hospital and the referral center--would limit the ability to achieve advantageous economies of scale in many services, however.) Many of the specialty contract services offered by the national firms are not needed at the referral centers. These include food service, housekeeping, laundry, materials management, plant operations and maintenance--which represent a large proportion of all contracts with hospital departments. Others, however, such as certain diagnostic services, might be more cost-effective to provide under contract.

Determining which services at which referral center might be advantageously contracted, with a local hospital or a national firm, was not attempted here. The "make/buy" decision requires balancing the relative costs and benefits of providing the services directly, of purchasing them on an as needed basis from local community hospitals or physicians, and of purchasing them in volume from a national firm. Hospital administrators are in the best position to make judgments about the feasibility and economic advantages of contracting for specialized services.

Legal and Administrative Constraints

There are no legal barriers in statutory or administrative law to contracting for clinical services, including the management of those services. Inmate health care is provided under a full-service contract with St. Luke's Hospital in Duluth, Minnesota. Service contracts of other sorts are in existence at a number of other facilities, and there is no legal reason why the provision of medical services would be considered differently. Indeed, the Bureau is even legally able to contract for all imprisonment services in a privately-owned and operated facility. Sentenced inmates are committed to the custody of the Bureau of Prisons, and the Bureau has the authority to designate the place of confinement. The Bureau may designate any available penal or correctional facility that meets the minimum standards of health and habitability established by the Bureau, regardless of whether the facility is operated by the Federal government, and regardless of the facility's location. Authority to contract with the States, territories, and political subdivisions is established in statute (18 U.S.C., Section 4002; 18 U.S.C., Section 5003). Authority to contract with private vendors in guided by procurement law.[4] In short, there is sufficient legal authority to contract for any range of services at any of the referral centers.

Administrative Constraints

At present, there are several security regulation restrictions on contract employees that would have to be changed if a private firm were engaged to perform clinical services, or hospital management services. For example, many employees currently working under contract with the Bureau may not move through the facilities unless they are escorted by a correctional officer. Some are given permission to walk about unescorted, however, largely because they have completed a Bureau training program in facility security. Associated with this is the ability to work out of a correctional officer's sight. Many consultants who work with prisoners are required to be under the constant surveillance of a correctional officer, while others are permitted to work in areas less completely supervised. Were more extensive contracting for medical services begun, the Bureau would have to establish or refine its policies for surveillance and escort so that all interests--those of the contractor and of the Bureau--were sufficiently protected.

How this is resolved has substantial fiscal implications. At present, all health care workers employed by the Bureau have the ability to walk about unescorted, which

permits them to take patients from one part of the facility to another without having to detail correctional officers to accompany them. If a contractor were not permitted to do this, the Bureau would have to bear a heavier cost for additional correctional officers. (These and similar fiscal implications of contracting are discussed at greater length below, in Chapter 4.)

Related to this is the responsibility for carrying keys. At present, no employees working under consulting contracts carry keys within the facility. This is the sole prerogative of the Bureau-employed staff, including Bureau-employed health care workers. If contractors were not permitted to carry keys, the correctional officer workforce would have to be increased to man all locked doors. Another option is to establish new administrative regulations permitting contract employees to carry at least some keys needed for their duties. This can be accomplished administratively. The Bureau would have to determine what kinds of new procedures and training requirements would have to accompany the extension of this privilege.

Liability

It is well-established in law that the Bureau retains legal liability for services rendered by contractors. The Federal government's liability for privately detained prisoners was affirmed in a case involving a death of an illegal immigrant trying to escape from a privately operated holding cell (Medina v. O'Neill, 585 F. Supp. 1028, 1984). In a more directly applicable case, the U.S. Court of Appeals, Eleventh Circuit, held that the provision of health care services in a Florida jail by a private firm acting under contract constituted a "state action" for the purposes of establishing the government's liability (Ancata v. Prison Health Services, Inc., 769 F.2d 700, 702 1985). The U.S. Supreme Court reaffirmed this principle in West v. Atkins, 56 U.S.L.W. (U.S. June 20, 1988), in which the court considered the question of "whether a physician who is under contract with the State to provide medical services to inmates at a state-prison hospital on a part-time basis acts 'under color of state law,' within the meaning of 42 U.S.C. Section 1983, when he treats an inmate."[5] The Court concluded that it did.

> Contracting out prison medical care does not relieve the State of its constitutional duty to provide adequate medical treatment to those in its custody, and it does not deprive the State's prisoners of the means to vindicate their Eighth Amendment rights. The State bore an affirmative obligation to provide adequate medical care to West; the State delegated that functions to respondent Atkins; and respondent voluntarily assumed that obligation by contract.[6]

Because the Federal government will not be able to shield itself from liability for the contractors' actions, the government should establish clear standards of care and should monitor contractors' performance.

"Political" Considerations

Contracting for health care operations or management would affect the interests of three different groups--the existing Bureau-employed health care providers, correctional officers, and the contractors themselves. A change in the duties of the contractors will affect the interests of the other two. Some of these interests can be accommodated by administrative changes, while others can be negotiated in the contracts.

If all clinical duties at a referral center are assigned to a contractor, existing staff will need to be reassigned (unless the staff are hired by the contractor). At present, there would be little need, if any, for a reduction in force, with layoffs, because there are shortages in nearly all categories of health care workers throughout the Bureau. There may nonetheless be some resistance to being reassigned, but bringing in a contractor to operate one referral center would not necessarily result in a loss of jobs for Bureau personnel. If more than one referral center were contracted out, however, the impact on jobs would be greater (unless an additional Bureau-operated center were established in the near future).

If only management responsibilities were contracted for, the impact on the Bureau's employees keeping their jobs would be much smaller, of course.

Contracting for all clinical duties would affect also the workload of the correctional officers. At present, correctional health care workers employed by the Bureau and PHS are trained at the academy at Quantico, Virginia, and have multiple responsibilities. They have responsibility for supervising inmates who work in the referral centers; they can write inmates up for disciplinary infractions; and they will respond with all other Bureau employees to a "custodial emergency," any incident requiring immediate staff intervention, such as a fight, riot, escape, etc.[7] Whether or not the correctional officers would have more work shifted to them upon contracting for health care would depend upon the types of duties that contractors would be obliged to perform (e.g., escorting prisoners), whether contractors would be able to have keys for gates, and whether they would have the ability to supervise inmates performing

various support services. It would also depend upon whether the Bureau increased the number of correctional officers on staff to accommodate a heavier burden.

The contractor's interests are affected by a wide variety of things, such as the flow of patients into the centers for treatment, the time it takes to transfer them out, the equipment provided by the Bureau, restrictions on use of the facilities, and, more generally, the ability to control a wide variety of workplace conditions. Depending upon how payment to the contractor is made, different types of incentives will be created that may affect the contractor's ability and willingness to accomplish certain duties at the expense of others. For example, if payment is not contingent upon the numbers of people admitted and discharged for treatment, but for maintaining a certain number of beds full, the contracting firm may find it in its interest to slow down transferring prisoners out, thereby slowing down the pace of admissions and the heavy work that has to be done at the front-end of a patient's stay. This would have an unwanted distributional effect on the other referral centers: the demand for those other centers' beds would increase. Or, an arrangement whereby the contractor is paid for each unit of service delivered creates an incentive to provide more units in order to increase revenues. If payment is based on an average cost per service, a possibility is created for a large profit for the contractor, and a large expenditure by the government. To protect against this possibility, payment might be based on some approximation of the average cost and a marginal cost for additional units of service. That is, the contractor may be assured of a specified number of units, to be paid at a price that approximates the estimated average cost of treating that number of inmates, plus a reasonable fee. If the number of units exceeds that number, payment might be based on a sliding percentage of the average cost in order to cover the contractor's marginal costs, without passing on huge profits for these additional units. This will be especially important to consider if the contract is based on units of treatment delivered rather than per diem bed costs.

Unfortunately, the existing experience at the Duluth facility does not provide a model for contracting clinical services at the referral centers. The Duluth contract pays St. Luke's hospital a fixed price for providing all services to prisoners at the facility. This price remains the same as long as the average daily population in the prison ranges between 750 and 825 inmates. If the population increases, a monthly fee based on a rate of $45/day is paid for all prisoners in excess of the 825 average daily population. This kind of arrangement is well suited to a situation where the population to be treated is relatively stable. Referral centers operate differently. They are

processing organizations that receive prisoners from over fifty prisons throughout the country. A payment scheme based only on an average daily population does not make sense because the size of that daily population is affected directly by the actions of the hospital administration and staff. To keep beds from filling up with prisoners staying for long recuperation periods, some other method of payment is needed to reflect the processing character of the referral center and to create appropriate incentives.

Nor do the state and local government contracts with correctional health care firms provide good models. They resemble the Duluth contract, with variations, because the services they provide are based upon a prisoner population within a certain range. The facilities they serve are prisons, and not referral centers. (See Appendix A.)

One possible solution might be for private contractors to bill the Bureau for services performed, with some adjustments for average and marginal costs at various levels of service. This will require creating a billing system in the referral centers. A private management firm could devise such a system, but this will be at an additional cost, and a substantial one, at that. There are other benefits to establishing a pricing system within a referral center, however. These include obtaining better information about what it costs to deliver a unit of service in these centers, information which is useful in determining how much in-house treatment capacity to create as opposed to relying more on outside hospitals.

Inventing a contractual structure to regulate the contractor's performance at a referral center is a complicated task, which is beyond the scope of our task here. If such a contract is to be developed, the Bureau might find it profitable to consult with the contract officers at the Immigration and Naturalization Service, who have a relatively long experience contracting with private providers for detention centers, and with contracts officers in the Department of Defense who are experimenting with different methods of delivering health care services to CHAMPUS-eligible persons.

Tensions Between Security and Clinical Concerns

Contracting for management of medical care in the referral centers may exacerbate an already existing tension between clinical and security concerns, or, by extension, between the medical and security staff. These tensions surface, for example, when the medical staff requests an inmate's immediate transfer to an outside hospital for treatment. Especially for prisoners classified as high-security risks, the necessity for taking security-oriented precautions may create delays, questions about

whether transfer is really needed, and so forth. The warden of one referral center, who had served previously as the warden of the Duluth facility (where a local hospital has a contract to provide all health care to the facility's prisoners), remarked that the difficulties in managing such a relationship between the prison and a contractor would be enormous, even "horrible." These predictions need not be taken as gospel, however, because procedures could undoubtedly be devised to facilitate an efficient working relationship.

Summary

Transferring ownership of any of the existing facilities to a private provider is infeasible for two principal reasons. First, there is not a competitive market for firms that provide management services for prison hospitals, and the risks of being "captured" by a monopolist contractor are too high. Moreover, even if there were a competitive market, transferring ownership of the needed assets to one firm would endow that firm with an advantage that potential competitors would find difficult to overcome, creating monopoly conditions.

The idiosyncratic character of the prison hospital, and the absence of a specialized management industry for these types of organizations also makes a "full-line" management contract of all clinical services of questionable feasibility. Local hospitals might be interested in negotiating a management contract for all clinical services, but the opportunity for competitive bidding among local hospitals exists only in Springfield and Lexington. Given the complexities of privatizing the hub of a nationwide health care system--the Springfield referral center--and the potential disruptions that could ensue, it would be easier to implement a private management contract at the Lexington center. The fact that the Lexington center serves women only would insulate the larger system from many of the effects of privatization. This could be an advantage, to the extent that one aimed to contain the disruptive effects on the larger system, but it also would be disadvantageous if one hoped to stimulate changes throughout that larger system.

Contracting for more specialized services, for the management and operation of specific departments within the referral centers (e.g., physical therapy, pharmacy, radiology), appears to be easiest of all to implement.

Endnotes

1. Charles Logan reviewed an early version of this report and challenged this assertion by noting that the Wackenhut Corrections Corporation, a private prison firm, has developed its health services capacity. It is true that private prison firms provide the health services customarily available in prisons, but these are outpatient rather than inpatient hospital services. For inpatient services, private prisons do what nearly all public prisons do: send the patient to a nearby hospital.

2. Charles Logan, referred to in note 1, challenged this assertion as well, pointing to the existence of a competitive market for private prisons and for private correctional healthcare firms. He argued that firms from these two industries could team up and bid against one another. It is indeed true that competitive markets for both exist, but the correctional healthcare firms have meager experience in managing and/or providing inpatient hospital services. As indicated below, only one private healthcare firm is developing expertise in prison hospital management (CMS in Georgia).

3. See Sandy Lutz, "Management firms emphasize efficiency, quality, as hospitals scrutinize their costs," (results of the annual contract management survey), Modern Healthcare (August 25,1989).

4. Matthew J. Bronick, "The Federal Bureau of Prisons' Experience with Privatization," photocopy of an unpublished paper (Washington, D.C.: Federal Bureau of Prisons, October 1989), pp. 14-15.

5. 56 U.S.L.W., at 4665.

6. Ibid., at 4668.

7. One reviewer of this report, Dr. B. Jaye Anno, argues that combining clinical and correctional responsibilities is against the trend in state and county facilities and "should be questioned at least." (Memorandum to author, dated January 3, 1990). No attempt was made here to evaluate the desirability of this practice.

CHAPTER FOUR

IS CONTRACTING FOR MANAGEMENT OR OPERATION LIKELY TO REDUCE SPENDING?

Aside from the feasibility of contracting, it is worth asking if contracting for the management or operation of the referral centers is likely to result in reduced spending for healthcare services or, at least, improved efficiency so that the same level of expenditure generates more or better services. This chapter describes briefly the development of the hospital contract management industry, the reasons why hospitals turn to contract management, and reviews the findings of several studies of contract management's effects on service delivery and costs. It concludes by assessing the likelihood that contract management will bring greater efficiency to the referral centers' operations.

A Brief History of Contract Management

After World War II, not-for-profit and public facilities provided the dominant share of hospital health care.[1] In 1964, as a consequence of an increasing awareness of the differences in quality of care between public hospitals and other facilities, Congress established the Medicaid and Medicare programs. Under both programs, health care could be provided at any facility, and was paid for by the federal government. Until 1983, reimbursement for Medicaid and Medicare was cost-based, including allowances for a return on invested capital whenever the service was provided by a for-profit facility. This policy made large amounts of public funds available to the private profit and non-profit sectors for the provision of health care, with little monitoring of price-making procedures.

This regulatory change ultimately had major consequences, including tremendous growth in the hospital industry, the development of multi-institutional arrangements among hospitals, and contracts with private firms.

Growth and Change in the Hospital Industry

The Medicaid/Medicare programs increased demand for health services and created a new kind of health care customer able to choose a facility and afford its cost through public payment. Credit ratings of hospitals became more favorable as a consequence of their financial backing by government or large insurance groups, which aided capital investment for the construction or acquisition of hospitals.[2] Because

reimbursement was cost-based, the incentives for hospital chains to contain costs were not compelling. On the contrary, the acquisition of a new hospital offered a profit-making opportunity by revaluing its assets, and raising the per diem hospital charges reimbursed by the federal government (to recover the now higher-valued cost of capital assets). By virtue of this accounting practice, the private for-profit hospital industry captured large sums of public monies to finance its further growth. In 1981, for example, Hospital Corporation of America purchased Hospital Affiliates International for $1.3 billion and added $500 million to its book value by correctly revaluing its assets.[3]

Subsequently, Congress decided to make this practice of revaluing assets illegal and moved towards creating more competitive market conditions in health services provision. Thus, in FY 1984, the prospective payment system, and the Diagnostic Related Groups (DRGs) that were created as part of it, established a reimbursement system based on fixed prices for admissions in each DRG rather than on the costs to the hospitals of providing the service.

The development of the Medicare/Medicaid programs also stimulated a change in the hospital industry by rewarding market-oriented management practices (such as aggressive billing techniques, marketing capabilities and accounting innovations) that were typical of the private sector but totally new to public hospitals. In addition, public hospitals were often old, under-equipped, and under-financed, and therefore unable to compete successfully.[4] Many hospitals had to close, including large urban facilities such as the Philadelphia General Hospital in 1977, and the Homer G. Phillips hospital in Saint Louis in 1979. Others, especially small and rural facilities that had structural problems in addition to facing this more competitive environment, turned to contract management to survive. The existence of a pool of non-competitive public hospitals provided a large market for the management companies to develop their expertise; in 1983, 40.1 percent of their clients were state and local hospitals.[5]

Development of Contract Management

In the late 1970s and early 1980s, a shift occurred in the private for-profit industry from hospital ownership to providing hospital management services. This shift was encouraged by rising interest rates, among other conditions. As it became more expensive to borrow in order to finance hospital acquisitions, the provision of industry expertise to provide management services to other hospitals was sought as a means of maintaining company growth. In 1970, only 14 hospitals had contracted out their

day-to-day management.[6] By 1980, according to the American Hospital Association, there were 397 such contracts; by 1985, the number had grown to 595.[7]

It is interesting to note that the Bureau's referral centers have many of the features that characterized public hospitals, which supported the growth of the contract management industry in its heyday. As in public hospitals during the pre-Medicaid/Medicare era (i.e., before 1964), services are delivered largely outside of a price-driven market; revenues are provided by government appropriations and services are delivered at no cost to prisoners (in the Bureau) or to indigents (in the case of public hospitals). Lacking the necessity of charging patients, the referral centers, like the public hospitals in the pre-Medicaid/Medicare era, have no experience with billing. It was these kinds of organizations that sought out the services of hospital management firms. By 1984, approximately 40 percent of all hospitals under contract management were state or local government hospitals; another 46 percent of them were secular non-profit hospitals, many of which provided essentially public services in a similar fashion.[8]

The term "contract management" includes a variety of different organizational forms. The most comprehensive entails the day-to-day management of an entire health facility by a separate organization that reports to the board of trustees of the managed institution. The personnel provided by the contracting firm may range from a single hospital administrator to a larger management team. (This is sometimes referred to as "full-line" contract management.) A more limited form involves contracting for the management of specific departments of a hospital ("specialty contract management").

The growth of speciality contract management was stimulated by the creation of the federal prospective payment system in FY 1984, which altered radically the economic environment in which the industry operates. With reimbursements based on prices set by the government rather than on costs, incentives were created for hospitals both to contain costs and to concentrate their activities in services where the expected reimbursement was higher then their production cost. The existence of gaps between cost and price provides profit-making opportunities for specialized companies able to reach large economies of scales in areas where services are overpriced. Specialty firms also are able to provide smaller hospitals with services that the hospitals themselves cannot provide easily, although larger hospitals also are signing up specialty firms when labor shortages in certain occupations make it difficult to "make" the service directly. As a result, specialty contract management has been increasing faster than full-line contract management, and currently dominates the market.

The number of hospitals contracting for full-line management services has declined in recent years, partly because of a decrease in the number of small rural hospitals, which provided a large market for contract management services, as well as a more general squeeze on hospital profits. Full-line contract management also may be less profitable than specialty management because of the limited ability since FY 1984 to mark up the prices for services. The Hospital Corporation of America's recent selling off of its hospital management company may be an indicator of the softening market and declining profitability in the full-line industry (and of inpatient hospital care more generally).

Reasons for Choosing to Contract for Management Services

A number of reasons are mentioned in the published studies to explain the choice of contracting for management services. Much of this information is collected from surveys of hospital board members, and therefore represents board members' perceptions rather than established truth about what contract management has actually done for these hospitals.

Financial pressures

These include cash flow management problems, lack of adequate billing procedures, bad credit ratings, large amounts of bad debt, and long debt-collection periods. In this area, the management company is thought to bring financial expertise and more skill and power to negotiations with other organizations, such as third-party payers or banks. Management companies also own data files relevant to their industry, which reportedly gives them ability to compare their operations with others and to diagnose better a specific hospital's problems.

Operations problems

These include recruitment difficulties or staff shortages, high personnel turnover, lack of a marketing policy, low occupancy rates, problems with size or location, deficits in a number of departments, difficulties dealing with regulatory requirements, and inadequate strategies for capital investment, innovations, or long-term planning. Usually, a management company will have access to larger resources, such as a national network for recruitment, a marketing department within the company, a network for mass purchasing at lower cost, or networks for shared services. By running many hospitals, management companies can attain, it is argued,

economies of scale in certain areas. The contract management option also provides the ability to take advantage of multi-institutional arrangements while maintaining autonomy and keeping policy decisions within the hospital's board of directors.[9]

Need for an Outsider

Boards may decide to chose outsiders to resolve internal conflicts between medical and administrative personnel, between the board of directors and the management, to implement unpopular but needed changes, or to overcome a bad reputation.

Comparing Reasons for Choosing Full-Line and Specialty Contract Management

Two different surveys of board members and hospital administrators indicate the different motivations behind contracting for full-line and specialty management services. In their 1985 survey of board members in 168 hospitals managed under contract by the Hospital Corporation of America, Kimberly and Rosenzweig identify the five top-ranking reasons given to justify decisions to contract for full-line management:

1. Need for management expertise
2. Physician recruitment and retention
3. Unsatisfactory or retiring administrator
4. Rising expenses
5. Declining revenues.[10]

A 1984 survey by Modern Healthcare of department (or speciality) contract management asked similar questions to hospital administrators who contracted out for specialty services only.[11] The top priorities listed by administrators who make the contracting decisions included:

		Cited by:
1.	Controlling staff costs	48%
2.	Profitability	47%
3.	Controlling supply costs	46%
4.	Decreasing length of stay	45%
5.	Quality assurance	44%

It is somewhat difficult to compare the answers provided for full-line contract management and for specialty contract management because the questions asked were

different and readers are not provided with the total list of questions asked in each survey. However, the data suggest that administrators choosing specialty contract management are more concerned with cost containment (three of their first five priorities are related to cost) than are boards opting for full-line contract management (none of the boards' first three priorities are directly related to cost).

What Benefits Does Contract Management Actually Bring?

Giving reasons for choosing to contract is not the same thing as establishing how contract management has actually affected the operation of hospitals. To determine that impact, several analysts have undertaken empirical studies. To date, these studies have examined only the full-line contract management phenomenon. Impact studies of specialty contract management have not yet appeared in the published literature. A more significant limitation for our purposes here is that many of these studies compare profit-seeking with non-profits, rather than public with private or public with profit-seeking private hospitals.

In one study, Kralewski et al. compared twenty matched pairs of non-profit community hospitals throughout the United States, using twelve performance indicators.[12] Although they used a small sample of hospitals, the results are particularly reliable because they analyzed time-series data for three years before and after half of the hospitals turned to contracting. They found that full-line contract management did not improve productive efficiency (either by reducing expenses or by increasing the quantity of service created), and that it left unchanged the following characteristics:

- admissions
- beds
- occupancy rates
- average length of stay
- employee/patient ratios
- payroll expenses /total expenses
- number of employee/number of beds
- net patient revenue/total revenue

The main change was a significant increase in charges for services delivered (measured by gross patient revenue over total expenses), resulting in significant increases in net profit and return on assets. Thus, the main change operated by the

shift to contract management appeared to be a change in the way services were priced rather than produced. Other studies support this general finding (i.e., that full-line contract management improves profitability largely through price or revenue increases rather than through cost-reduction).[13]

This parallels findings of studies of private investor-owned hospitals. In a review of research for the National Academy of Sciences on the for-profit enterprise in health care, a special committee concluded that:

> ...although standard economic theory predicts greater efficiency in for-profit than in not-for-profit organizations, the expected ability of investor-owned for-profit organizations to produce the same services at lower cost than their not-for-profit counterparts has not been demonstrated. Large organizations theoretically benefit from economies of scale and reduced transaction costs, but such savings may be offset by central-office costs, higher capital costs resulting from a growth orientation, and the payment of taxes and dividends.[14]

These conclusions may now be outdated because these studies examined hospital operations before the shift in FY 1984 from a cost-based reimbursement system to a prospective payment system based on DRG rates occurred. Now that per case DRG rates are used by many payors, the option of raising charges is limited. This constraint may explain why the growth of full-line contract management has been eclipsed by specialty contract management, which aims at exploiting cost-reduction possibilities in smaller niches.

Changing Mixes of Services

Another strategy full-contract management firms adopt is to change the mix of services provided in the hospitals they have been hired to administer, concentrating on ones that are most profitable or ones that they are most expert at delivering.

Rundall and Lambert studied the influence of contract management on the mix of services offered by hospitals. They used two sets of data: (1) a national comparison between investor-owned and public (state and local) hospitals on population data provided by the AHA annual survey, and (2) a comparison between ten public hospitals in California that are operated under the management of an investor-owned organization and ten matched hospitals belonging to a traditionally managed control group, for three years after contracting with a management firm.

From the first data source, the authors established that there are differences in the mix of services provided by public and investor-owned hospitals. They found that

twelve services were over-represented in investor-owned hospitals while twenty-three other services were over-represented in public hospitals. (These findings also may be somewhat outdated since the establishment of DRG rates in FY 1984 and the impact of these on the profitability of various services.) Among the most prominent differences in over-representation are the following:

Public hospitals	Private hospitals
part-time pharmacies	full-time pharmacies
psychiatric care	specialized laboratories
outpatient care	diagnostic services
	inpatient treatment
	support services

The authors also examined the changes in service mix occurring over three years under contract management, and compared them to what happened in a control group. They found that hospitals under contract management were significantly more likely to add:

- mixed intensive care units
- abortion services (inpatient)
- abortion services (outpatient)

while they significantly dropped:

- occupational therapy
- psychiatric outpatient service
- psychiatric emergency service
- clinical psychology service

Contracting in the Referral Centers and the Prospects for Higher Efficiency and Lower Costs

The discussion above indicates that there is little evidence that the full-line management industry has relied principally upon cost-reduction strategies other than shedding unprofitable types of services. The growth of that industry appears to have resulted instead from more aggressive revenue collection strategies and marketing techniques, and from changing the mix of services toward more profitable ones. Better marketing will not be of value to the current Bureau system, given the way resources are allocated. The referral centers do not operate within a market where healthcare is

paid for on a pre-service basis. Nor is there a DRG-like system of fixed payment schedules, which creates an opportunity for enhancing revenues by manipulating patient mix. Instead, resources are allocated by officials at higher levels within the Bureau of Prisons and other agencies of government (the Office of Management and Budget, and Congress).

In addition, there are powerful structural reasons why full-line contract managers will be limited in their ability to reduce costs. In the free community, managers of privately-managed hospitals are permitted considerable latitutde to change the patient mix and to shed unprofitable services. This has incurred large social costs, but managers have been free to pass those costs onto the public sector. (Public hospitals have been given a heavier burden of caring for the least profitable patients at the same time that more profitable patients--those with private health insurance or those needing treatments that can generate DRG-based revenues that are higher than costs--are being drawn away from the public hospitals to private ones. This has plunged public hospitals into a severe fiscal crisis.) This is not possible within the Federal Bureau of Prisons' healthcare system. If some kind of price system were created in the referral centers with fixed-reimbursement schedules, and if managers were permitted to pick and choose their patients while shedding those that were least profitably treated, the Bureau would still have to bear the cost of those who were shed. These latter patients would have to be treated in local community hospitals at a cost to the Bureau, or in other referral centers. This would create a system-wide inefficiency because the Bureau would probably not be able to negotiate contracts with local hospitals to pay for these services on any basis other than cost-reimbursement.

It is possible, of course, that full-line contract management firms could reorganize the production of the referral centers' services, without having to control either the stream of public funds or prisoners/patients, so that costs could be reduced. The existing studies of full-line contract management do not document the extent to which such cost-reduction has been accomplished successfully in hospitals that have contracted with private firms, but there may be opportunities to do so.

Specialized Contracting

Specialty contract management may be better able to exploit cost-reduction opportunities by taking advantage of economies of scale. The cost-effectiveness of contracting for departmental services has not been demonstrated in the literature (neither has the reverse proposition), but the fact that hospital administrators are

typically the customers for such services, rather than hospital board members, suggests that there may be a strong economic rationale for choosing to contract for these specialty services. The relative advantages and disadvantages of "buying" rather than "making" specific types of services vary widely according to the demand for such services, the ability of the hospital to provide directly, the cost of capital associated with specific services, the ability to recruit specialists, and so forth. To identify specific opportunities for contracting rather than for direct provision, or vice-versa, was beyond the scope of this study. Armed with better utilization and financial data than now exists, referral center administrators could improve their ability to identify good prospects for specialized contracting. (This would require better procedures for collecting and analyzing information--a point discussed in Chapter Six.)

Endnotes

1. Regina E. Herzlinger and William S. Krasker, "Who Profits from Nonprofits?" Harvard Business Review (Jan./Feb. 1987), 93-105.

2. Ibid.

3. Ibid.

4. Jeffrey A. Alexander and Thomas G. Rundall, "Public Hospitals Under Contract Management," Medical Care 23:3 (March 1985), 209-219.

5. Jeffrey A. Alexander and Bonnie L. Lewis, "Hospital Contract Managment: A Descriptive Profile," Health Services Research 19:4 (Oct. 1984).

6. Ibid.

7. American Hospital Association, 1985 Annual Survey (Chicago: American Hospital Association, 1985).

8. Alexander and Lewis, "Descriptive Profile."

9. Jeffrey A. Alexander and Bonnie L. Lewis. "The Financial Characteristics of Hospitals Under For-Profit and Nonprofit Contract Management," Health Services Research 19;4 (October 1984), 463-477.

10. John R. Kimberly and Philip M. Rosenzweig, "Hospital Boards and the Decision to Renew the Full Service Management Contract," Hospital & Health Services Administration 13:4 (Winter 1988), 449-465.

11. Linda Punch, "Contract Management Companies Manage Growth Rate of 13.3%," Modern Healthcare (Aug. 15, 1984), 42-52.

12. John E. Kralewski, Bryan Dowd, Laura Pitt, and Errol L. Biggs, "Effect of Contract Management on Hospital Performance," Health Services Research 9:4 (October 1984), 479-488.

13. Alexander and Rundall, "Public Hospitals."

14. Bradford H. Gray (ed.), For-Profit Enterprise in Health Care, (a report of the Committee on Implications of For-Profit Enterprise in Health Care) (Washington, D.C.: National Academy of Sciences, 1986), 186-7. See also the study by Craig G. Coelen in the same volume, "Hospital Ownership and Comparative Hospital Costs," 322-353. In his statistical analysis of charges, costs, utilization rates, and margins in a sample of several thousand hospitals, Coelen reports that "[our] findings clearly dispute the presumed advantages of chain-operated hospitals in general, and proprietary chains in particular, from economies of scale and profit-related incentives for minimization of cost." (at pp. 325-6).

CHAPTER FIVE

THE POSSIBLE IMPACT OF PRIVATIZATION ON THE QUALITY OF SERVICE DELIVERY

Whether it is feasible to privatize one or more referral centers turns also on the likelihood that the quality of service will be affected following the conversion of those referral centers from public to private management. As the preceding chapter has noted, there is no base of experience in contracting for the operation of prison hospitals at the state and local level. Few prison hospital facilities exist and only one has operated under private sector management (since mid-1989), providing no opportunity to assess quality of service issues. For guidance on these issues, we turned instead to studies of the experience of general community hospitals, and of state and local corrections institutions that have contracted for prison-based health care services.

Non-Prison Hospitals

Concerns about the quality of health care in profit-making hospital settings (particularly those operated as part of a chain of proprietary hospitals as opposed to the more traditional, independent proprietary) are founded on the assumption that the economic interests of providers may conflict with the health care interests of patients. There are, however, very few empirical studies of the relationship between organizational status and quality of care.

Measuring the quality of hospital care is decidedly difficult. Quantifiable patient outcomes (such as mortality or post-surgical readmission rates) and patient care practices (lengths of stay, rates of elective surgical procedures) are imperfect indicators of quality, subject to a variety of influences that defy reliable measurement. A 1986 report of the Institute of Medicine's Committee on Implications of For-Profit Enterprise in Health Care reported only one major attempt to examine the relationship between patient outcomes and hospital ownership status--and this study compared not-for-profit and for-profit ownership, not private with public.[1] Commissioned by the Committee, this study examined mortality and re-admission rates among Medicare patients admitted to a sample of private U.S. hospitals between 1974 and 1981.[2] No conclusive evidence was provided that profit-seeking hospitals had either improved or compromised patient care.

On other measures related to quality--hospital accreditation, physician certification, and quantity of nurses--the Committee found that "differences between investor-owned and not-for-profit institutions are small and the direction of the differences varies."[3] Investor-owned hospitals were slightly more likely to be accredited by the then Joint Commission on Accreditation of Hospitals (JCAH). On the other hand, there was some evidence that those hospitals were less selective in approving physicians for staff privileges and had slightly lower rates of board certification. None of these differences were statistically significant and no differences were found in numbers of nursing personnel per patient. Finally, the board chairmen of chain hospitals reported more quality-related concerns, and a survey of physicians, conducted at the Committee's request, reported that about one-fourth of the respondents with for-profit hospital privileges believed that quality of care was better in not-for-profit settings. The Committee concluded that these limited indicators show no overall pattern of either inferior or superior quality.[4]

The Committee did acknowledge that the early growth of chain providers may have improved overall levels of quality since hospital chains have tended to acquire independent proprietaries--a class of hospital with notably low accreditation rates. Combined with evidence that the hospitals acquired by the chain providers may have been poorly managed and had labored under weak financial structures (problems that could have quality implications), a picture emerges of a group of hospitals that may have had nowhere to go but up.

The Committee concluded that the cost-based reimbursement environment that stimulated the growth of hospital chains minimized potential conflicts between profit motivation and patient interests. With the economic and competitive changes that have taken place in the health care sector since the establishment of fixed DRG prices, standards of quality may be shifting. Foreseeing greater pressures to cut corners, the Committee called for additional research to develop and validate more sensitive indices of quality, and for increased monitoring of patient outcomes in all types of hospitals.

Responding to the call for increased research on the relationship between quality of care and the new pressures on hospitals to reduce costs, Shortell and Hughes examined inpatient mortality rates as a function of various measures of regulation and competition.[5] Significantly higher mortality rates were observed among hospitals that faced severe regulatory constraints or operated in highly competitive markets. No differences were found between independent hospitals and those affiliated with a multi-

hospital system. Rather, hospitals of any type appeared to be responding to the pressures of regulation and competition in ways that may negatively affect the quality of patient care.

Data that more directly address the comparison of public and private hospitals are shown in a 1986 study of physicians' evaluations of hospitals.[6] Approximately 3,200 physicians were asked to compare the hospital with which they were primarily affiliated with those that they were familiar with. Specifically, they were asked how nursing, hospital administration, patient satisfaction, and technical equipment in their primary hospital compared with others that they were familiar with. A substantial percentage of those working in nonfederal government hospitals reported that their hospitals were worse than other private facilities they were familiar with, whereas a much smaller percentage of those working in private hospitals--either for-profits or not-for-profits so reported. In contrast, a smaller proportion of physicians whose primary hospitals were government ones reported that their hospitals were better than others they knew of. Taken as a whole, these findings indicate that physicians are more satisfied with private hospitals than nonfederal government ones. What they say about the actual quality of care is unclear.

A study published at the end of 1989 compares public with private for-profit and not-for-profit hospitals using a more objective measure of patient outcomes: mortality rates.[7] Analyzing mortality data from more than 5,800 hospitals, researchers found that the death rates per 1,000 Medicare patients averaged 120.8 in for-profit hospitals, slightly lower--120.3--in public hospitals and 114 in private non-profit hospitals. Although these showed a significant difference between not-for-profit and for-profit status, the difference between the for-profits and the public hospitals was essentially nil. Mortality rates are also but one indicator of patient outcomes, although they are strongly correlated with other measures of quality problems in hospitals.[8]

In summary, there is in the published literature no clear and compelling evidence that the quality of care in the referral centers would be affected either positively or negatively by a simple change in the status of their management.

State and Local Corrections Health Care

The state and local governments' experience is also worth examining to learn about contracting and its effect on the quality of service. In the general absence of their own medical care facilities and staff, state and local corrections agencies have turned to community hospitals for in-patient care, and to a variety of contracting

arrangements for outpatient services. A national survey sponsored by the National Institute of Corrections (NIC), published in 1984, provides the best indication of the prevalence of contracting--although the picture it presents is now five or six years out of date and provides little detail on the different forms of contracting.[9] The NIC study found that most commonly contracted services were for individual physicians (76% of the surveyed agencies), more general health services (71%), and mental health care (67%). The survey does not permit one to determine how broad the range of contracted services was in each of the jurisdictions, but our cursory review of current contracting, and of the states' history of contracting, suggests that the majority of all contracts at that time were limited to discrete facilities rather than entire systems, and even further to specific types of services (e.g., medical, dental, or psychiatric). A 1985 study of corrections and the private sector sponsored by the National Institute of Justice found fifteen states reporting a "major" contracting program for medical and psychiatric services.[10] Six states reported "modest" programs and another six classified their medical contracting ventures as "minor."

Of interest are the public correctional officials' evaluations of the contracting experience in the NIC survey. The most frequently mentioned benefit was the delivery of a better quality of service (62% of the agencies cited). Providing a unique service not provided by the agency itself was a plus for 24% of the agencies, and 32% cited a decrease in liability by using contracts that improve conditions. The overall advantages of contracting cited by public correctional officials were summarized by the report's authors as including:

"Complete service at a lower cost"
"Wide range of expertise"
"Provides 24-hour coverage"
"Availability of staff"
"Professional service"
"Flexibility in staffing"

On the other hand, agencies also recognized problems associated with contracting. The study did not list these problems separately for health care contracting, but instead reported evaluations of all contracting generally. Of the 161 complaints reported in the survey, the eight most common complaints included:

- Difficult to supervise others' employees
- Poor quality of service
- Did not provide promised service
- Difficulty with bidding process
- Service not provided on time
- Difficulty in regulating service quality

- Having to take low bid and poor quality
- Unsatisfactory payment arrangement

In the absence of more comprehensive published information on correctional health care contracting, Abt Associates solicited information directly from agencies that use contracting to provide comprehensive health care services. Appendix A provides a brief review of those practices in several states contacted in the course of this review. Two conclusions warrant emphasis here.

First, respondents commonly reported that contracting had succeeded in raising the quality of health care. Notably, however, many agencies turned to contracting precisely because their ability to deliver adequate service was exceedingly weak. A pattern of substandard care, federal court intervention, court orders to remedy substandard conditions, and the turn to contracting is found in numerous jurisdictions.

Arguably, if all other things were equal, public corrections agencies might do as well at improving the level of health care service. A second conclusion, however, is that "other things" are not always equal. State and local governments have found it tremendously difficult to recruit and retain qualified health care professionals. Imposing obstacles are often created by the remote locations of correctional facilities, the mismatch between government salary schedules and prevailing market rates, and personnel regulations that constrain flexible employment arrangements. Faced with an imperative to remedy substandard conditions, it is not surprising to find a preference for contracting.

The Bureau of Prisons' Health Care System

The overall quality of medical care provided by the Bureau of Prisons has not been declared substandard by the Federal Courts, nor is there any other evidence that the system is severely dysfunctional. With the assistance of the U.S. Public Health Service and the use of outside providers on an as-needed basis, the Bureau demonstrates its ongoing ability to deliver a full range of care.

While both independent proprietary hospitals and systems of health care at the state and local level of corrections may have shown improvement under more aggressive private sector management, their baseline levels of service had typically fallen below the floor of acceptable service. Within the context of the Bureau's health care system, there is no reason to believe that a move from public to private status will have either a positive or negative effect on the quality of care.

The Bureau is plagued by many of the same problems of staff recruitment and retention that trouble corrections agencies nation-wide. At its current level of operations, however, there is no evidence that these problems have resulted in unacceptable levels of patient care. Many of those interviewed argued that understaffing is affecting the timeliness of care but not its quality. (The next chapter will discuss the effects of understaffing on the efficiency and costs of the Bureau's operation.)

Staffing Policies and Problems

As of June 1989, there were a significant number of vacancies in the four referral centers and throughout the national system. Table 5.1 shows the distribution of these vacancies in several categories of health care professionals during that month.

Table 5.1
Number of Authorized Positions and Vacancies in Selected Categories of Health Care Professionals, By Referral Center, June 1989

	Springfield		Rochester		Lexington		Butner	
	Pos.	Vac.	Pos.	Vac.	Pos.	Vac.	Pos.	Vac.
Physicians:								
Med/Surg	15	4	9	2	6	1	2	1
Psychiatrist	7	3	3	1	2	1	6	3
Nurses	142	15	63	5	31	3	14	4
Physicians' Assts	11	1	12	3	10	3	7	1
Pharmacists	11	6	4	0	4	0	2	1
All positions in referral centers	252	39	133	13	80	11	45	11

SOURCE: For all but Lexington, BPMED18 reports, Bureau of Prisons. Lexington data estimated by Mike Lynch, Asst. Health Services Administrator, FCI-Lexington.

Understaffing of the referral centers cannot be alleviated by transferring professionals from other parts of the Bureau's medical services division--which is to say, from other prisons--because shortages are even more severe division-wide. During Fiscal Year 1990, the Bureau expects that the division-wide vacancy rate for physicians will be about 47 percent, 73 percent for physicians' assistants, 16 percent for nurses, and about 6 percent for all other categories of health care employees.[11]

Several factors contribute to this pattern of vacancies. There is a nationwide shortage of registered nurses, physicians' assistants, and some types of physicians. Federal funding of the Public Health Service's program of training doctors in return for service at lower pay has dried up, reducing the numbers of "obligated scholars" available to work for low salaries in the Bureau. Recruiting efforts within the Bureau have not been able to compensate for these developments. Civil Service pay scales for several categories of professionals are below market rates, making it difficult to attract and keep qualified people. Working in prisons rather than in free community

hospitals also tends to carry a stigma that hinders further the ability to recruit professionals. Exacerbating these forces at the system-wide level is the difficulty in attracting professionals to the rural locations where many of the federal prisons (but not referral centers) are located.

The highest base salary that can be paid to a physician is currently $75,000 per year. At present, the average salary is approximately $71,000.[12] It is possible to win approval to award up to an additional $20,000 per year to physicians in order to attract them to or keep them in the Bureau, which makes the effective maximum $95,000 per year. Unfortunately, this is still below what many new doctors hope to make as their starting salaries. According to one recent recruit to a referral center, (who took a cut in salary to come to the Bureau), $100,000 is the "magic number" for doctors who come out of schools with heavy debt burdens, and they aim to hit that target in their first job after residency. Those medical administrators interviewed for this study were quite uniform in their estimates of salaries that are needed to be competitive: about $125,000 per year for needed types of physicians. Because psychiatrists can command even more money, one medical administrator thought up to $150,000 per year was needed to recruit them effectively.

Physicians' Assistants (PAs), are also paid below market rates. The Bureau pays them an annual average of between $28,900 and $37,500, while about $55,000 a year is need to remain competitive with private-sector employers, according to one of the administrators interviewed. Because PAs are in such short supply, according to this administrator, they receive an average of eight job offers upon finishing school, and the Bureau finds it extremely difficult to recruit them with such low salary scales. The time it takes to fill an opening for a PA in the Bureau averages seven to nine months.[13]

Nurses are paid at about the same rate as physicians' assistants, which again is below market rates. The referral center in Rochester recently obtained a special authorization to increase its nurses' salaries by 25 percent, which made it easier to recruit. In addition, the referral center was authorized to permit nurses to work four ten-hour work days a week, which is reported to be the main reason why nurses are staying. Hospitals in the free community are offering a variety of flexible working hours to attract nurses, and the hospital administrator at Rochester believes that even more flexibility than is currently permitted is needed to increase the center's competitiveness.[14]

Lack of flexibility in staffing, because of regulations, also inhibits effective manpower utilization in other ways. For example, hospitals in the free community

maintain "float pools," lists of qualified nurses who are available to work on a part-time or temporary basis. (Indeed, in many hospitals, more than half the nurses on staff are part-timers.) To work even part-time in the referral centers, all Bureau employees are required to attend the training academy in Virginia for a month. Unable to make this commitment, usually because of family obligations, potential part-time nurses are blocked from working in the referral centers.

The referral centers also cannot hire consultants full-time to fill the gaps in their staffs because of the government policy restrictions. To do so would create a second tier of full-time employees, each having different salary and benefit structures. As a result, the referral centers hire many different consultants on a part-time basis, paying their high "market" rates (as much as $150,000--$300,000 a year). Some of this is unavoidable, because certain types of specialists are needed too infrequently to justify full-time employment in the Bureau. For other types of physicians (such as internists, for example), it might be more cost-effective to employ them full-time at a higher annual wage than they can currently be paid, rather than buy their services piecemeal.

Finally, some hospital personnel argued that the true measure of understaffing at the referral centers is not the gap between the number of authorized and filled positions, but between the number of filled positions and the number that is needed to provide services at the standard that prevails in the free community. For example, one administrator at Rochester argued that the needed number of nurses at that referral center was not 63, as authorized, but closer to about 110 or 120. Asked how the current number of authorized positions was determined, several administrators said that they simply estimated how many professionals of all types would be needed to staff such a facility, and that they are now having to adjust their decisions with the benefit of experience. They emphasized that the level of services was not now so low as to risk their accreditation status or to raise liability problems, but suggested that it fell "somewhere between the minimum level and the community level."

A Cautionary Note on Using Contracting to Resolve Staffing Problems

To be sure, a policy of contracting for all or most of the operations of the Bureau's health care system might alleviate the quality-related constraints imposed by federal personnel regulations and pay restrictions. But a policy of sufficient scale to solve these personnel problems raises problems of its own:

Stability

The threat of disruptions in service by virtue of strikes and bankruptcies becomes more worrisome the more reliant an agency is on contracting. It is also important to ask whether a large program can be sustained in the long term, and whether there will be a sufficient number of provider organizations to avoid the creation of contractor monopolies and a diminution of the benefits of open-market competition.

Reversability

The larger the contracting program, the less reversible the decision. Even if the government retains its ownership of facilities and equipment, restaffing may be difficult. An already constrained public personnel pool will be even more limited, and there may be a long lag time before new personnel can be recruited and trained.

Quality Assurance

The key elements of effective quality control are deceptively simple: (1) A contract that clearly specifies all expectations, incorporating measurable indices of performance; (2) payment provisions that create incentives for efficiency without simultaneously offering disincentives to maintain standards of care; and (3) rigorous monitoring procedures designed to identify and establish the means for resolving problems. Applying these tenets in a health care setting is extremely difficult. The available standards--most notably those of JCAHO--are necessarily procedural, not substantive. Ultimately, the provision of appropriate patient care relies on the informed judgments of an array of professionals whose decisions are difficult to codify and hard to regulate. Monitoring these decisions requires sensitive information systems and well-trained health care professionals who can adapt to their new supervisory roles. Both the costs of this additional layer of supervision and the uncertainties that surround the monitoring task suggest that careful pilot testing would be essential before any large scale implementation.

Obviously a decision to contract a single, privately operated facility involves far less risk. The Bureau would be less vulnerable to disruptions in service and better able to recover from a contractor withdrawal or termination, or to test and refine an appropriate quality assurance program. While a single facility fails to address the problems of system-wide personnel shortages, it may, if successful, serve as a useful laboratory, or even an exemplar, providing other institutions in the system with a benchmark for self-evaluation.

By the same token, however, the ability to integrate a single, privately managed institution into the Bureau's health care system could prove troublesome. Creating a dual system of health care service--with conceivably different pay scales for its public and private components--might exacerbate public sector recruitment and retention problems. Salary caps on contractor's employees are an obvious solution but one that might perpetuate inefficiency or dilute standards of care, or even defeat the contractor's ability to hire staff.

If, as a matter of policy, a test of private management is considered desirable, a highly specialized facility might serve critical Bureau needs, at the same time minimizing the danger of creating a two-class system of health care. The preceding chapter suggested that the Lexington referral center for female inmates might provide a logical testing ground for a privately managed facility. Another possibility for specialization might be a facility for inmates with AIDS and other illnesses requiring long-term care. Chapter 1 has already commented on the "graying" of the nation's prison populations. This phenomenon has substantial health care implications, given the incidence of chronic health problems among elderly prisoners.[15] Combined with the threat of increasing numbers of prisoners with AIDS, the demand for a long-term care facility may soon rise.[16] In order to build sufficient demand to reach advantageous economies of scale in the near term, such a facility might take prisoners from various state jurisdictions that also face problems of scale in coping with inmates with specialized needs for medical care.[17]

Whatever the population to be served, the point remains that a means to differentiate the public and private component of the Bureau's health care system seems desirable, if not essential. Since the interest in the private sector in <u>any</u> prison hospital venture has yet to be tested, it is unclear whether a procurement targeting cases in need of long-term care (including AIDS cases) would find a receptive audience. Because there is no evidence that privatization will necessarily raise the quality of services, the risk of potential disruptions and other negative consequences on the broader system might not be worth it, on balance, unless there are clear advantages in specialization, efficiencies, or lower costs to be gained.

Endnotes

1. Bradford H. Gray (ed.), For-Profit Enterprise in Health Care, a report of the Institute of Medicine (Washington, D.C.: National Academy Press, 1986).

2. Gary Gaumer, "Medicare Patient Outcomes and Hospital Organizational Mission" in Gray, For-Profit Enterprise, pp. 354-374.

3. Gray, For-Profit Enterprise, p. 189.

4. Ibid.

5. Stephen M. Shortell and Edward F.X. Hughes, "The Effects of Regulation, Competition, and Ownership on Mortality Rates Among Hospital In-patients," The New England Journal of Medicine, April 18, 1988, p. 1100-1107.

6. R.A. Musacchio, et al., "Hospital Ownership and the Practice of Medicine: Evidence from the Physician's Perspective," in Gray (ed.) For-Profit Enterprise, pp. 385-401.

7. A.J. Hartz, et al., "Hospital Characteristics and Mortality Rates," The New England Journal of Medicine, 321, no. 25 (21 December 1989).

8. Ron Winslow, "Care May Lag at Hospitals Run for Profit," The Wall Street Journal, 21 December 1989.

9. Camille, G. and George M. Camp, Private Sector Involvement in Prison Services and Operations (South Salem, NY: Criminal Justice Institute, 1984).

10. Joan Mullen, et al., The Privatization of Corrections, (Washington, D.C.: U.S. Department of Justice, National Institute of Justice, U.S. GPO, February 1985).

11. Interview with Steve Dann, Chief of Operations, Bureau of Prisons Medical Service Division, August 10, 1989.

12. Ibid.

13. Ibid.

14. Jeanne Smith, (Health Services Administrator, Rochester referral center), November 1, 1989 interview.

15. "Experts See Growth in Elderly Inmate Populations," Criminal Justice Newsletter, November 15, 1989, pp. 5-6.

16. Seroprevalence studies of males and females conducted by the Federal Bureau of Prisons show the following results reported in Hammett, 1988 Update: AIDS in Correctional Facilities, U.S. Department of Justice, National Institute of Justice (Washington, D.C., U.S. GPO) April, 1989.

Number Tested	Inmate Categories	Number HIV Seropositive	% Seropositive
9,640	all incoming inmates (6/87-10/87)	240	2.5
23,172M	all releasees	393M	1.7M
1,887M	(6/87-12/88)	24F	1.3F
5,239M	10% random sample of	129M	2.5M
935F	incoming inmates (11/87-12/88)	49F	5.2F

As of October 1, 1988, the Bureau reported the following confirmed AIDS cases:

Deaths	77
Releases	51
In System	48
Cumulative Total	176

As of October 1, 1989, this distribution had changed as follows:

Deaths	97
Releases	51
In System	57
Cumulative Total	205

17. The distance factor is a primary problem in designating a single facility for long term care of inmates from various federal and state jurisdictions. Removing severely or terminally ill inmates from their home jurisdictions would necessarily distance them from their families.

CHAPTER SIX

ALTERNATIVES TO CONTRACTING FOR MANAGEMENT OR OPERATIONS

Turning to private management firms is but one strategy that might be adopted in the quest of gaining stronger control over the utilization of healthcare resources and their costs. In the course of our research, other possible approaches became apparent. This section suggests directions that the Bureau might explore whether or not the privatization option is pursued for any or all of the referral centers.

Alleviating Staff Shortages

As discussed in Chapters Two and Five, the ability to treat patients efficiently within the referral centers appears to be constrained by staff shortages. These shortages will become more severe in the coming years with the cessation of funding for Public Health Service scholarships (which oblige newly-minted doctors to work at reduced pay in government hospitals). Faced with similar labor problems, some states have turned to contracting in order to obtain sufficient staff. One significant reason why contractors are able to hire more staff is that they are able to pay them more than is allowed by the state pay schedules. A more direct way of solving the recruitment problem would be to raise compensation levels. At the federal level, the most feasible method of accomplishing this might be to increase the size of the compensatory bonus that may be awarded physicians. There also may be other ways of affording physicians additional benefits that would attract them to prison service, such as providing them with additional training in their specialties.

Another possible approach to alleviating the physician shortage is to enter into an affiliation agreement with nearby medical schools and teaching hospitals. This has been the method used by public and VA hospitals to improve their services. This would afford prisons a cheap source of clinical labor. Medical schools would gain because it would expose students to different types of health care needs. To be sure, some security issues would be raised, but these do not seem insurmountable.

The Bureau also could do a more effective job of recruiting staff. Several of those persons we interviewed indicated that they were unable to do as focussed a recruitment effort as they would like. At present, the burden for recruiting is on the medical directors at the referral centers. Creating a specialized recruitment capability at the national level might increase the provision of healthcare workers without any other changes in compensation.

More Efficient Use of Resources

The utilization of referral center resources is affected by procedures for referring patients to them, by in-hospital management of their cases, and by procedures for discharge. Efficiency gains might be obtained by changes in each of these three areas of practice.

Rationing Referrals to the Centers

On site visits to the referral centers, we heard stories of prisoners with relatively minor and easy to repair health problems being transferred to a referral center when it could have been cheaper to have the procedure done locally in a nearby community hospital. How often this occurs is impossible to estimate because data are lacking. In the past, an incentive to make such decisions was created by giving superintendents at each federal prison a budget for transportation and another for purchasing local health care. If more money happened to be left in the transportation than in the latter budget, an incentive was created to send the prisoner to a referral center in order to preserve funds in the health care budget, even if the procedure could have been done locally at a low cost. This disincentive to obtaining local treatment was reportedly eliminated by consolidating the two budgets into a single one.

There remains, however, another incentive to use referral center resources instead of purchasing local care because the referral center appears as a free resource to the prison superintendents--who are consumers in the Bureau's healthcare system by virtue of their authority to decide where treatment will be provided. Indeed, the referral centers are "free" if they are in operation, staffed up, and have unused capacity. (That is, a large part of their operating cost is fixed, and the marginal cost of servicing each additional prisoner is quite low, at least until capacity is reached.) Transfer to a referral center may indeed be economical in these conditions, if the cost of transportation and the marginal cost of treatment at the referral center is lower than the cost of treatment in a nearby community hospital.

This practice becomes inefficient, however, when the referral centers' capacity is reached, and when the transfer of such cases forces other patients into nearby community hospitals for lack of space. At present, the referral centers are operating close to their full capacity. For example, in June 1989, it was reported that the waiting time for non-emergency cases was three to four weeks. Moreover, it was reported that in May, only 253 prisoners who requested transfer into the referral

centers were accommodated, out of the 332 making such requests.[1] The remainder were sent to community hospitals.[2]

If a large group of those currently treated in referral centers could have been treated for less than the per admission costs shown in Table 2.1, it might be more effective to ration the use of the referral centers, reserving them for the most expensive kinds of treatment (and for high-security inmates), and sending more prisoners to local community hospitals. If the referral centers generated patient-specific and treatment-specific cost information, administrators and planners would have the ability to compare referral center costs with prevailing charges by community hospitals, and could then determine more rationally which prisoners might be more cost-effectively treated in community hospitals than at the referral centers. At present, such information is not collected.

This information would also be useful in planning for expanded capacity. Coupling computerized data on patient characteristics and treatments would enable one to assess how many of the existing referral centers' patients might be more efficiently distributed among referral centers and community hospitals. This information could then be used to extrapolate needed prison hospital capacity at higher levels of federal prisoner populations.

An even more radical but potentially productive approach would be to create a billing and pricing system, so that the cost of specific in-house services could be readily communicated to potential users (or the health services administrators and wardens acting on their behalf). This would increase the ability to discriminate efficiently between the cost of in-house treatment and the cost of services in nearby hospitals. By limiting the funds that prison superintendents have for healthcare services (and requiring them to pay for referral center treatments out of their budgets) an incentive to economize would be created.

The ability to use local community hospitals rather than transporting prisoners to referral centers might be further enhanced by expanding the infirmary capacities at the prisons--especially the larger ones--so that room for convalescing is created. Whether or not such an expansion would be economical, and at what scale, is deserving of further study.

Stratification of Caseloads

Another strategy for increasing the productivity of the referral centers that holds promise are the procedures the Bureau is establishing to "stratify" the delivery of health care in the referral centers. Resources and coverage are being reorganized so that they are concentrated on those patients most in need, and reduced for less needy patients. This strategy should reasonably be expected to result in more efficient operations. The current efforts should be evaluated closely, which will require developing better data and data management systems with information on expenditures, utilization of resources, treatments provided, and patient diagnoses.

Stratification could be coupled with the creation in some referral centers (and expansion in others) of "step-down" units in which prisoners are placed to convalesce. Because these do not need to be staffed so heavily, they are less costly to operate than full-service hospital wards. Wings of existing referral centers could be so designated. Under present conditions of near-full capacity, the possibility of building convalescent units on the grounds of existing referral centers, or nearby, should be explored as an alternative to acquiring or building additional referral centers.

Creating Incentives for Quicker Discharge

As discussed in several places in this report, the lengths of stay in the referral centers are very long, on average, and could be shortened. In addition to the various other strategies discussed above and elsewhere (e.g., alleviating staff shortages), the Bureau's managers might well consider how incentives might be created to speed treatment and processing of patients. Faced with accusations of inordinately long stays, the VA began several years ago to use DRGs as targets for appropriate lengths of stay. Setting targets, and devising incentives to encourage staff to meet them, might yield useful results, and lower per admission costs, in the Bureau's referral centers.

Better Data for Efficient Management

All of the strategies for improvement discussed here require information and information systems. Managing resource utilization efficiently is difficult in the absence of information about how resources are being used and how much they cost. The Bureau would be well-advised to create a capability for effective reviews of resource utilization.

At present, the Bureau's ability to conduct such treatment-specific analyses of costs, and to analyze utilization data, are underdeveloped. Utilization data are reported on paper forms, and it appears that there is a lack of consistent counting rules for reporting data. Some referral centers are beginning to develop their own computerized data bases for patient information, but this developemnt threatens to balkanize the Bureau's ability to achieve a uniform data base and reporting system. Given the increasing complexity of managing the Bureau's health care system, and the certainty of much higher expenditures in the coming years, investment in the development of automated data bases for a variety of utilization and cost data would undoubtedly pay large dividends. A contractor hired to administer a referral center might be required to develop a prototype of such a system in the single referral center, but a wiser strategy would be to undertake development of a Bureau-wide system at once. This could be done by contracting with a firm having expertise in developing just such systems.

Endnotes

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2. R. Freitag, Medical Designator, Federal Bureau of Prisons, telephone communication, November 1989.

APPENDIX A

STATE AND LOCAL EXPERIENCE WITH CORRECTIONAL HEALTH CARE CONTRACTING

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STATE AND LOCAL EXPERIENCE WITH CORRECTIONAL HEALTH CARE CONTRACTING

Contracting for correctional health care has been most extensive at the state and local government level, where corrections agencies have relied for years upon the private sector to provide services. Contracts with private firms are used almost exclusively for out-patient care. When inpatient care is required, correctional agencies generally transfer prisoners to local community hospitals. Some localities, because of the high demand in the correctional systems for inpatient services, have arranged with these local hospitals to maintain secure wings used exclusively by prisoners. A few jurisdictions have small hospitals, usually secondary-care facilities that have very limited capabilities for handling patients needing acute care. In most places, correctional agencies purchase standard-issue inpatient beds on an as-needed basis, and post security officers near these inmate patients to guard them while they are in the hospital.

As discussed in Chapter Two, the available data on correctional health care contracting are highly fragmentary and somewhat dated. To obtain a more current view of state and local experience, information was solicited directly from several major users of health care contracts. Most jurisdictions contract for specific services, often by specific individuals, as the 1984 NIC survey of state governments indicates.[1] That is, they may purchase the on-going services of individual physicians, psychologists, pharmacists, dentists, or other care providers. Or they may buy broader "packages" of care--e.g., all mental health care in a particular facility. Because the Bureau of Prisons' referral centers already purchase the services of a number of contractors--typically, individuals or nearby hospitals--we have chosen to focus our examination here not on state and local experience with such piecemeal and limited contracting but instead on the places where correctional agencies have hired firms to provide more comprehensive and managed care. This is more likely to tell us about the advantages and disadvantages of contracting for management services in correctional health care settings. Below is a discussion of three of the most interesting and relevant cases (practices in Arkansas, Georgia, and Massachusetts).

Contracting in Three States: A Brief Illustration of Some General Practices

Arkansas

This state's Department of Correction has an average daily population of about 6,000 in nine major prisons and and three work-release facilities.[2] Since 1981, one firm has provided comprehensive medical and associated administrative services and supplies to all prisoners in the system. These include those housed in cellblocks (i.e., outpatients), those in small infirmaries having a few beds, prisoners receiving in-patient care purchased from local hospitals (the costs for which the contractor is responsible), and prisoners housed in or passing through the 24-bed Diagnostic and Inpatient Care Facility. This facility provides outpatient care, including physicals, as well as pre/post-surgical care and recovery, convalescence, and chronic care. It is essentially a skilled, non-acute care unit. The contractor is responsible for negotiating the agreements and relationships with local hospitals to which prisoners are sent for inpatient services. (The contractor does not provide either dental or mental health care.)

The contractor has the responsibility of managing the medical care of prisoners, from outpatient through inpatient services, within a negotiated budget. The cost of the services is established by a bidding process whereby bidders offer assessments of what it will cost to provide a list of services to a specified number of inmates, at a per inmate/month rate. The Arkansas Department of Correction reviews the assumptions followed by the contractors in developing their estimates, and chooses the winning bid on the basis of cost, strength of staff, and other aspects of the contracting firm. The contractor is paid monthly, the amount based on the average daily population of prisoners, multiplied by the established "inmate per month cost factor."

The Department pays all medical bills and then settles at the end of the month with the contractor. Costs that run over the established monthly amounts (determined in the manner described above) are deducted from future payments to the contractor. In this manner, the contractor is at risk for overspending, although in the case of some extraordinarily high costs, the contractor and the department meet to determine how these high costs are to be shared. Through 1988, the contract limited the contractor's liability to $35,000 per inmate. This was changed in 1989, when the department agreed to be more flexible in sharing extraordinary expenses on a case-by-case basis.

According to the chief administrator for the state's Department of Correction, the services provided by the contractor could be provided directly by the state for about 13 percent less--the amount the contractor charges for its fee and overhead expenses.[3] This is, at best, an opinion rather than a substantial finding, because no systematic study has been done comparing the costs and benefits of direct provision and contracting. Despite the appearance of a higher cost of contracting, the Department reportedly feels that the arrangement is preferable to direct provision of services because of three principal benefits. First, the department's managers achieve a sharper focus by delegating management of medical care to a contractor. (That is, by delegating to private specialists the day-to-day management decisions involved in running health care facilities, they are able to devote a greater portion of their time both to the core mission of the agency--secure corrections--and to the end products of the health services.[4]) Second, the department is limited by state personnel regulations in its ability to hire health care workers at market rates and to be as flexible as the contractor is in scheduling coverage and assigning staff. Third, the department believes that it is reducing its exposure to inmate lawsuits because both the inmates and the courts apparently perceive that they are getting better care than the department would be able to provide directly. One of the department's officials summed this up by the saying that the "Department should not attempt to force the costs lower and run a program which loses credibility . . . and winds up costing more in the long run."[5]

Massachusetts

The Massachusetts Department of Correction operates 22 prisons, with about 7,600 prisoners, not counting prisoners in addiction centers and mental health facilities. Like Arkansas, the state contracts with a single firm (a not-for-profit corporation) to provide all medical services to prisoners in all facilities. The contractor also provides mental health services in addition to medical, and it operates and manages the state's correctional psychiatric facility, Bridgewater State Hospital. (Dental services are provided by consulting dentists rather than by the contracting firm.) Except for the management of the psychiatric hospital, all medical services are for outpatients in the prisons. If inpatient medical or surgical care is needed, the contractor's physicians notify the Department of Correction's officials and those officials arrange a transfer either to a nearby community hospital, in the case of emergencies, or to secure wing of an underutilized state hospital in Boston, which provides the department with all inpatient services "free." (That is, the costs are

covered by the state's Department of Health rather than by the Department of Correction.) The contractor is not at risk, therefore, for expenses incurred for inpatient treatment.

As in Arkansas, the cost of contracted health care is reportedly higher than it would be if provided directly. The department's associate commissioner in charge of health services estimates, with a "wild guess," that the department could provide the services for perhaps 10-15 percent less than the contractor charges, but argues that the benefits received outweigh the higher costs. The principal one is that the contractor is not bound by the state's personnel regulations and non-competitive pay scales and is therefore able to hire higher quality staff in the required numbers.[6] To staff the facilities, the contracting firm makes extensive use of part-time physicians, nurses, and physician's assistants; permits staff wide latitude in choosing week-to-week work schedules within constraints imposed by agreed-upon coverage requirements (with flex-time, comp. time, etc.); and offers higher pay on an hourly basis than could the state. Both the contractor and the department's administrator believes that this flexibility and use of part-time employees reduces employee "burnout" that occurs when professionals work only in prisons, improves retention, and permits more use of high-skilled professionals.[7] The administrator also stated that the higher level of care translates into fewer lawsuits against the state.

The contractor is reimbursed for costs incurred. The winning firm is chosen on the basis of its estimated price for providing services specified in the state's RFP (in addition to other qualities of the firm and the firm's proposal). Because all contractors with the state of Massachusetts are regulated by the state's Rate Setting Commission, line-by-line expenses are given close scrutiny and are subject to fixed limits. In such a regulated environment, the contractor is given only limited management autonomy to organize health care provision, and the firm's exposure to risk is minimized.

Georgia

The Georgia Department of Corrections (DOC) is comprised of 25 correctional facilities and is responsible for approximately 18,700 inmates.[8] Rather than contract for all medical or health care at all the state's prisons, the department provides service directly where it can do so successfully, and contracts for service to prisons that are in remote areas or are under federal court orders. (Federal court pressure was a major factor in choosing to contract.) Since 1980, the department has been contracting with one firm, which receives about thirty percent of the department's $30 million

correctional health care budget, to provide services in 12 DOC facilities, which altogether hold approximately 50 percent of the system's inmate population.[9] Two contractual agreements exist. The first is for the provision of medical personnel at ten of the twelve facilities. An RFP was issued by the DOC listing the administrative and medical positions they wanted filled and offering a flat rate at which the personnel would be paid. The second contract is cost-based and is for the provision of personnel as well as for the management and delivery of health care in two facilities, a large prison infirmary and the Augusta Correctional and Medical Institution (ACMI), a 135-bed care facility that operates as the main referral center for the department. The contractor is paid on a per-inmate basis, at the annual rate of $1,625 per inmate for fiscal year 1989.[10] This second contract leaves the responsibility of health care provision to the contractor, thereby permitting the contractor to determine the number of personnel necessary to fulfill the terms of the contract.

The experience of ACMI will be especially interesting to watch because it is one of the few state or local correctional hospitals in existence. Until recently, it was only a 135-bed infirmary on the site of a 600-bed prison that provided primary health care to prisoners in the facility and served also as a focal point for coordinating the delivery of secondary and tertiary care to prisoners referred there from all prisons in the state. Until the spring of 1989, all surgical work was done outside the department, at the Humana Hospital in downtown Augusta. The state has just completed construction of two surgical suites at ACMI, however, and the contractor is obliged to staff and manage this part as well. According to the contract, the state expects as many as 600-750 procedures, primarily general surgery, orthopedic and ENT but not tertiary-level procedures that will still be done at Humana.[11] The organization of this facility approximates the structure of the Bureau of Prison's referral centers. It will consequently be important to evaluate within a year or two to identify how effectively private firms are able to manage government-owned prison hospitals.

In addition, the department is experimenting with another type of contract at the Lowndes Correctional Institution, one of its prisons in the town of Valdosta. The same contractor that provides the services described above was asked to establish a comprehensive health care program at the facility, and a pilot project was undertaken. Under this agreement, the contractor pays for all health care costs, including drugs, and outside medical consultations and procedures, for a fixed price, established on a per-inmate basis. The state plans to evaluate this within a year or two to see if this

broad delegation of management provides an effective model for health care provision within the prison system.[12]

The department's health care administrator reports that the direct costs of contracting for health care are higher than they would be if the state provided services directly, but that "the indirect cost of litigation and staff hassles probably make contracting cheaper in the long run." Further benefits include the contractor's ability to do national recruitment that results in hiring more and better staff than the department would be able to do on its own. Hiring and firing of employees is more efficiently accomplished because the contractor does not have to adhere to the state's personnel regulations, and the quality of care provided is high. Indeed, the contractor met the standards established by the federal court fourteen months before the deadline.[13]

Some General Themes in the State and Local Experience

Extracted from our studies of these and other cases, a number of relevant themes emerged. Although we make no claim that our sample is either comprehensive or representative, it does seem possible to articulate some very tentative generalizations. Below is a short list of the more relevant findings.

Cost

Those correctional department officials interviewed in many of the states reported that contracting for health care is more costly than direct provision. Lacking the ability (and the accounting methodologies) to undertake sophisticated cost comparisons between public and private provision, most officials made "wild guesses," as one called his, about what the cost difference is likely to be. Others made some guess about what the contractor's overhead charges were likely to be, or their profit margins, and felt that these indicated the probable difference. For two reasons, these estimates should be read with caution. First, it is extremely difficult to identify the true costs of government service. Because many costs may be spread across different agency budgets and government overhead accounts, public officials may be judging comparative costs against an inaccurate standard. Second, the comparisons tend to make assumptions about <u>other things being equal</u>. That is, the cost of Massachusetts providing the same services directly would be X percent lower than the contractor's price. But this puts no value on the contractor's being able to provide the level of service in the first place, and correspondingly ignores the state's inability to bring

staffing or services up to the contractor's level. The real comparison is between the cost and value of the contractor's services, and what the government agency would pay and deliver in the absence of contracting. Agency officials in many jurisdictions generally recognize this, and chose to bear what they perceive to be the higher cost precisely because they are unable to provide the services themselves at acceptable levels.

Improved Services

A common report in the interviews was that contracting has succeeded in raising the level of correctional health care. Tennessee's women's prison kept failing a mock ACA audit of health care services until they contracted with a national firm. Within a few months of signing the contract, the actual ACA audit took place and the medical care section of the facility scored a 99.6, and the institution earned accreditation.[14] Health care in Kansas prisons has improved dramatically.[15] Correctional administrators in the New York City jail system report being so pleased with the contractor's services in one jail that the agency chose recently to contract in all jails.[16] In both Georgia and Delaware, the performance of the contractors has exceeded the requirements established by the states.[17] In some states, however, there have been lawsuits alleging gross negligence in the care of patients. (For example, in Massachusetts, the contractor operating the Bridgewater State Hospital has been sued for gross negligence[18].)

Some states reported past difficulties with contractors' performance, but the typical method of resolving this was to award the contract to another firm.[19]

Could the Public Sector Do As Well?

Many states and local governments turned to contracting because their ability to deliver the service was exceedingly weak. One of the earliest local contracting relationships was struck between New York City and Montefiore Hospital in 1973 because it was thought, according to two observers, that "one cause of the riots of 1970 [in the large New York City jail system] was the disastrous status of prison health care; the quality of care must be maintained . . . in order to avoid similar occurrences."[20] Kansas began contracting in 1988 because prior to that, there was almost no prison health care system to speak of in the state, and the "rudimentary" state of health care had become increasingly unacceptable. A federal court order required that the system be reformed, and the state turned to a contractor to implement the court's demands.

Under contracting, the quality of health care services in the state prison system have gone from "virtually nil to steps towards ACA accreditation."[21] As indicated above, both the Arkansas and the Georgia systems were also under federal court orders, and contracting was chosen as a means of bringing their health care systems into compliance. This pattern of substandard care, federal court intervention, and the turn to contracting is found in numerous jurisdictions.

Improvements in health care have not always required the involvement of private sector firms. A recent article discusses three state systems (Illinois, Michigan, and Texas) that undertook major changes in their publicly managed programs.[22] In each case, the impetus for reform was the same threat or reality of litigation. But with aggressive public sector leadership, these states reportedly made significant improvements without turning to private sector management. What appears to be required is the recognition that change is needed, and the commitment to support improvement--regardless of whether a public or private agency is selected to implement the reform.

Obstacles to Staffing

In one arena, the private sector does offer a clear advantage. Faced with a nationwide problem--the shortage of physicians, nurses, and other health care professionals, and the difficulties in attracting them to remote areas of the country--state and local governments have had difficulties in recruiting these professionals. Contractors claim that they bring special expertise in recruiting health care professionals and that they can rely upon a national network. The experience in a number of states suggests that at least several contractors can deliver on their promises. (One nationally-oriented contractor reported that they recruit nurses in areas where there are either surpluses--in Canada, for instance--or in economically depressed areas where nurses' salaries are low.)

A more imposing obstacle is the mismatch between government salary schedules and market rates for health care professionals. Moreover, the constraints on changing these schedules in many states are so restrictive that it is easier for a departmental administrator to turn to contracting than to try to get government salaries raised. For example, the salaries paid to state health care workers in Massachusetts' Department of Correction are established for all positions within a bargaining unit that encompasses the state's Department of Health. Because medical professionals in the prisons would be assigned by the Department of Health, the salaries

of those in prisons could not be negotiated upwards without raising the salaries of all positions within the broader bargaining unit.[23] To a decision-maker sitting in a line agency, trying to accomplish a "simple" raising of salaries must appear to be a task far more formidable than choosing the easier path--to contract for these services in order to bypass state personnel regulations and pay restrictions.

In addition to sub-market salaries, administrative restrictions on flexible staffing arrangements put many government agencies at a comparative disadvantage in the hiring market. Liberated from personnel regulations, contractors can make much more creative use of part-time employees. In Massachusetts, for example, the state-wide contractor attracts well-trained psychiatrists and psychologists who are beginning to build their private practices. The employment agreement is flexible enough to let these persons cut back their prison work progressively, over months or years, as their private practices grow. The contracting firm also employs physicians who want to moonlight by being on call during evenings for emergencies.

The Importance of Incentives

The contractual arrangements that appear to have the greatest capacities to control costs are those that establish a price for delivering comprehensive health care--from primary through acute--and put the contractor at risk of losing money if they fail to keep costs down. The experiment in Georgia's Lowndes Correctional Institution is an especially interesting example of this. Cost-reimbursement contracts such as those in Massachusetts may create fewer incentives to control costs.

Asking a contractor to provide health care for what amounts to a fixed price, given the prospects of catastrophic illness or injury, or of AIDS, poses an obvious problem. How is the impossible-to-foresee case that costs hundreds of thousands of dollars to be insured against? One possibility is to require contractors to cover all potential costs, thereby creating the most demanding incentives for cost control. The contractor's options in such a case are to either purchase an insurance policy against such a possibility from a third party, or to self-insure by fixing a price for services that is high enough to build up a large reserve.

Another option is for the contracting agency to insure the contractor against such events. One method found in some states is a to fix a specified cap on the contractor's liability. The state of Tennessee, for example, requires the contractor to pay for all treatment but limits liability to $12,500 per inmate, or $25,000 for incidents involving multiple inmates. Costs exceeding these amounts are paid by the state. In

addition, the contractor is not liable for AZT treatment or its successors, or for hospitalization for AIDS. (Hospitalization for AIDS-related complexes must be paid for by the contractor, however.)[24] Other states have variations on this theme, setting liability caps at different levels, with different types of exclusions for very expensive treatments.[25]

Tennessee has also developed an interesting contractual structure that creates incentives both to control costs and to assure an adequate level of services. Half of the contract is essentially of the cost-plus-fixed-fee variety, and the second half establishes a fixed price. Services provided on a cost-plus basis include all costs of operating outpatient clinics and infirmaries, including salaries, fringe benefits, office supplies, travel expenses, and so forth. The state reimburses the contractor for all costs incurred for these services and pays the contractor another 10 percent as a fee. This permits the state to avoid paying if demand drops off and costs go down as a result. Further, the contractor is not at risk if demand increases more than expected. But because the state wants to control the cost of outside hospitalization, dental services, and pharmaceutical supplies, payment for these is at a negotiated fixed price. (There are some limits on the contractor's liability, as discussed above.) This fixed-price tier of services creates powerful incentives for the contractor to control their use and to negotiate favorable purchasing agreements. According to the department's health services administrator, the state is "exceptionally happy with the arrangement and the service to date." It is, in his words, an "exceptionally successful program." Prior to signing the contract, for example, the state was spending about $90,000 a year for drugs at the women's prison. Now the contractor is reportedly spending about $32,000 per year. The contractor "can be a lot tougher with the inmates than our people can." "Our people tend to pass out drugs for the placebo effect, whereas their people are much more restrictive." Similarly, the cost of medical services at the women's prison has dropped from an average of $90,000 per month to $62,000 per month.[26]

In considering these reported savings, it is important to recall that comprehensive data on the overall costs of public vs. private operations were not available and could not be generated for this review. More detailed study is required before any firm conclusions can be reached on the question of relative costs.

Endnotes

1. Camille G. Camp and George M. Camp, Private Sector Involvement in Prison Services and Operations (South Salem, New York: Criminal Justice Institute, 1984).

2. Most of the information that follows was provided by John Byus, Administrator of Medical and Dental Services, Arkansas Department of Correction, in several telephone interviews during July 1989.

3. Ibid.

4. For a discussion of privatization and managerial focus, see Michael O'Hare, Robert Leone, and Marc Zeagans, "The Privatization of Imprisonment: A Managerial Perspective," in Douglas C. McDonald (ed.), Private Prisons and the Public Interest (New Brunswick, N.J.: Rutgers University Press, forthcoming).

5. Internal memorandum by Max J. Mobley, Arkansas Department of Correction, 14 February 1989, p. 2.

6. Frank Jones, Associate Commissioner, Massachusetts Department of Correction, interview, July 1989.

7. Interviews with Frank Jones and Dr. Ronald Goldberg, President of Goldberg Associates, July 1989.

8. American Correctional Association, 1989 Directory, (Laurel, Maryland: American Correctional Association, 1988), p. xxii, pp. 112-16.

9. Ibid.

10. Ibid.

11. State of Georgia, Request for Proposal Number 467-080-301739, dated 21 December 1987.

12. Michael Spradlin, Administrator of Health Services, Georgia Department of Corrections, telephone interview 9 May 1989.

13. Ibid.

14. George Jungmichael, Assistant Director for Fiscal Services, Tennessee Department of Correction, telephone interview dated 11 May 1989.

15. Nadine Belk, Kansas Department of Corrections, Health Services Administrator, telephone interview, 26 June 1989.

16. Steven Thomas, Assistant Commissioner for Planning and Health Affairs, NYC Department of Corrections, 21 July 1989 interview.

17. Spradlin interview; Brooke Laggner, Chief of Administration and Operational Support, Delaware Department of Correction, telephone interview dated 2 August 1989.

18. Memorandum from Professor Mark Schlesinger of Harvard University, 9 January 1990.

19. In Arkansas, for example, according to interview with John Byus, Administrator of Medical and Dental Services, Arkansas Department of Correction, 12 July 1989.

20. Louis Medvene and Carol S. Whelan, "Prison Health Care in New York City: A Historical Perspective" (New York City: Community Service Society, May 1976), p. 1.

21. Nadine Belk, 26 August 1989 interview.

22. Peter MacPherson, "In a Padlocked Society, Good Health Care Remains an Elusive Goal," Governing, April 1989, p. 50-54.

23. Frank Jones, July 1989 interview.

24. George Jungmichael interview.

25. Delaware, for example, fixes the limit at $15,000 per prisoner, according to Brooke Laggner, August interview. Kansas' limit is $10,000 per prisoner. Nadine Belk, 26 August 1989 interview.

26. Jungmichael interview.

APPENDIX B

COMPUTATION OF REFERRAL CENTER EXPENDITURES

Table B.1

Estimating Average Per Capita Daily Cost
of Inpatient Health Care In Four Major Referral Centers, FY88
(Excluding Estimated Costs of Outpatient Care to General Population)

Step 1: Estimating average daily per capita cost of narrowly defined "medical" care, excluding estimated cost of outpatient care to general population ($2.60 per prisoner)

	Medical	Outpatient Care	Inpatient Care	PHS	Number of Patient Days	Average Cost Per Patient
Lexington	$6,008,881	$1,172,423	4,836,458	$534,142	24,487	$219.32
Butner	2,046,181	573,503	1,472,678	337,704	56,749	31.90
Springfield	12,281,602	290,087	11,991,515	785,161	257,820	49.56
Rochester	7,036,880	481,328	6,555,553	594,831	44,129	162.03

NOTE: "Medical" is defined as all costs in Decision Unit B (DUB), in the Bureau's accounting system, minus an estimate for cost of care given to outpatients. (For the assumptions used in estimating this per-outpatient cost, see Table B.2 below. The total est. cost of outpatient services was computed by multiplying estimated outpatient/day costs -- $2.60 -- by the difference between total man/days, below, and total number of patient days.) "Inpatient Care" (the total estimated Bureau of Prisons expenditure for inpatient care) equals the total medical/DUB expenditure minus estimated cost of outpatient care. "PHS" refers to expenditures by Public Health Service for personel assigned to the Bureau's referral centers. This figure is added to the Bureau's inpatient care amount to yield a total federal expenditure for inpatient care. Patient/days includes days spent in both referral center beds and outside hospital beds. Obligations for medical equipment excluded.

Step 2: Estimating amount of non-medical expenditures to allocate health care. The purpose here is to estimate what proportion of all the prisons' non-medical functions should be attributed to cost of providing hospital care to prisoners.

	Total Facility Expenditures	All Non-Medical	Total Prisoner/ Days	% Patient/ Days of all Prisoner/Days
Lexington	$20,033,090	$13,490,067	475,419	5.15%
Butner	11,425,519	9,041,634	277,327	20.46%
Springfield	28,561,263	15,494,499	369,392	69.80%
Rochester	17,761,285	10,129,574	229,255	19.25%

	Non-Medical Costs Allocated to Health Care	Number of Patient Days	Estimated Daily Expenditures for All Non-Medical Functions Allocated to Health Care Per Patient
Lexington	$694,821	24,487	$28.38
Butner	1,850,176	56,749	32.60
Springfield	10,814,505	257,820	41.95
Rochester	1,949,829	44,129	44.18

NOTE: Non-Medical computed by subtracting all Decision Unit B and PHS costs from total facility expenditures. These costs are allocated to health care in the same proportion as patient days during FY 1988 were to total prisoner/days in each of the facilities. For example, 5.15 percent of all Lexington's prisoner/days during that year were patient/days, and that percentage of "all non-medical costs" were allocated to health care. This, in effect, represents that portion of overall facility support (security, food, maintenance, administration, etc.) that we estimate to be allocated to support in-patients in the prison hospitals.

Step 3: Combining all medical and allocated "all other" expenditures.

	Average Cost Per Patient
Lexington	$247.70
Butner	$64.50
Springfield	$91.50
Rochester	$206.22

SOURCES: Computed from miscellaneous data provided by the Bureau of Prisons. PHS costs were computed from data provided by Rhonda Ward, PHS/Bureau of Prisons.

Table B.2

Estimating Cost of Outpatient Services at Referral Centers, FY 1988

1.	BOP-wide total medical obligations (excluding equipment) (Defined as decision unit B)	$82,080,291
2.	Subtract medical obligations for Big Four referral centers (equipment excluded)	-26,549,940
3.	Subtract expenditures for outside prison consultation and hospitalization (B25)	-17,339,308
4.	Sum: obligations for medical services and operations outside of Big Four	$38,191,043
5.	Total number of prisoner/days in BOP system, not counting. Big Four referral centers	14,692,395
6.	Estimated cost per prisoner/day (line 4 divided by line 5)	$2.60/day

NOTE: To compute the estimated cost of outpatient care in each of the Big Four referral centers, $2.60/day is multiplied by the number of general population inmates, average daily census in FY 1988.

SOURCES: Obligations from Bureau of Prisons, miscellaneous accounting runs, provided by Dennis Callahan; man\day information from data provided by Jim Jones, Bureau of Prisons.

Table B.3

Average Expenditure for Consultants Services Inside Prisons and for Treatment of Prisoners Outside Facilities, Per Patient/Day, by Referral Center, FY 1988

Step 1: Estimating average per diem/patient expenditures for consultant services inside prisons to deliver services

	Total Cost of Consultant Services	Total Patient Days Outside & Inside	Average Per Patient/Day
Lexington	$2,607,983	24,487	$106.50
Butner	674,245	56,749	11.88
Springfield	2,691,435	257,820	10.43
Rochester	2,275,611	44,135	51.56

SOURCES: Expenditures for consultant services from Bureau of Prisons, identified as Decision Unit B50/250CN. Total patient days from BPMED3 reports.

Step 2: Estimating average per diem/patient expenditures for consultant services delivered to inpatients and outpatients outside prisons.

	Total Cost of Outside Services	Total Patient Days Outside & Inside	Average Per Patient/Day
Lexington	$2,212,873	24,487	$90.37
Butner	229,230	56,749	4.04
Springfield	1,781,682	257,820	6.91
Rochester	6,449	44,129	0.15

SOURCES: Expenditures for Decision Unit B25, Bureau of Prisons reports of obligations; patient days from BPMED# reports.

Table B.4

Estimating Component Costs of Inpatient Care,
by Referral Center, FY 1988
(Excluding Estimated Cost of Outpatient Care
to General Population Inmates)

Step 1: Data

	Total Medical Labor	Total Security Costs (DU E)	Non-DUB allocated Health Care	All DUB	PHS
Butner	$2,192,579	$3,087,790	$1,832,348	$2,046,181	$337,704
Lex.	$5,392,845	$3,973,352	$700,452	$6,008,881	$534,142
Roch.	$6,555,184	$3,342,931	$1,946,208	$7,036,880	$594,831
Spring.	$10,794,845	$6,761,790	$10,736,546	$12,281,602	$785,161

Step 2: Allocating expenditures for outpatient care of general population.

	ratio "a"	op1	op2	Total Outpatient Cost
Butner	0.611688289	$350,805	$222,698	$573,503
Lexington	0.766154562	$898,257	$274,166	$1,172,423
Rochester	0.733701201	$353,151	$128,177	$481,328
Springfield	0.565661412	$164,091	$125,996	$290,087

NOTE: Ratio "a" = proportion of Total Medical Costs to the sum of: All DUB, PHS, non-DUB Allocated Health Care Costs, and minus Security Costs

OP1 = Outpatient Care costs allocated to medical labor
OP2 = Outpatient Care costs allocated to hospital expenditures

Step 3: Computing average per diem to expenditure of component costs of inpatient care.

	Medical Labor	Security	Hospital	Total Average Cost per Day
Butner	$32.45	$11.13	$20.91	$64.50
Lexington	$183.55	$8.36	$55.79	$247.70
Rochester	$140.54	$14.58	$51.09	$206.22
Springfield	$41.23	$18.31	$31.96	$91.50

NOTE: Medical per diem estimated by adding medical labor plus PHS, minus estimated share of outpatient costs allocated to medical, divided by total patient days.

Security per diem estimated by total DU E costs, multiplied by percentage of patient days to man days, divided by total patient days.

Hospital per diem estimated as residual of total estimated daily cost (see Table B.1), minus security per diem, minus medical per diem.

SOURCES: DUB and Medical Labor costs from Bureau of Prisons, Dennis Callahan; PHS expenditures from Rhonda Ward, PHS/Bureau of Prisons; Security costs from Jim Jones, Bureau of Prisons; non-DUB allocated Health Care estimated in Table B.1; Total outpatient costs estimated in Table B.2 (see note).