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Issues and Practices

Managing Prison Health Care and Costs

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Health and Justice

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by
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Issues and Practices in Criminal Justice is a publication series of the National Institute of Justice. Each report presents the program options and management issues in a topic area, based on a review of research and evaluation findings, operational experience, and expert opinion on the subject. The intent is to provide information to make informed choices in planning, implementing, and improving programs and practice in criminal justice.

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Foreword

In recent years, health care providers in the world beyond prisons have been developing various techniques for controlling costs. These "managed care" strategies have wrought dramatic changes in the organization of health care. Although the cost-effectiveness of these new techniques is not clearly established, a number of correctional administrators are beginning to adapt them for use in prisons. In many places, these strategies provide a means of bringing sharper management focus to an area of prison administration that has heretofore been of secondary concern and often loosely organized.

This document examines several approaches developed by State and Federal prison administrators to manage health

care and health care spending for inmates. All of the examples described here are from State and Federal prisons, and many are applicable to jails as well. Although most of these approaches have not been subjected to systematic evaluation, the National Institute of Justice is disseminating information about them to support the development of innovative practices in this important area of correctional administration.

Jeremy Travis
Director
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Acknowledgements

This project grew out of an earlier study conducted for the National Institute of Justice in 1989–90, which assessed the feasibility and desirability of contracting for the management and operation of prison hospitals run by the Federal Bureau of Prisons.¹ That project was prompted by a request from the Office of Management and Budget, which was exploring cost-effective ways of delivering prison health services. Since then, interest in health care reform has intensified greatly, although correctional institutions have been largely ignored in the debate about how to restructure the larger national health care economy. This study examines how managed care concepts and techniques are used in prison systems independent of the broader national reform effort.

In April 1994, the advisory panel met with me and staff of the National Institute of Justice in Bethesda, Maryland, to discuss the various efforts around the country seeking to control health care costs in prisons. They suggested programs and practices for me to explore, reviewed plans for structuring the work of this project, reviewed a draft of the report, and suggested a number of ways in which it could be strengthened. I am deeply grateful for their valuable contributions.

I also owe a debt to a number of corrections officials, especially administrators of prison health care systems, for giving me and my assistants their time in telephone interviews and for sharing various materials developed by either them or their staffs.

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Endnote

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Executive Summary

This study is an examination of practices and policies used by State prison administrators to manage health care and costs. In recent years, the costs of prison health care have risen faster than other correctional costs. Upward pressure on spending comes from several sources: growing numbers of prisoners, rising costs of health care in the larger society upon which prisons rely for services, the threat of litigation and Federal court demands to improve services, aging prisoner populations, and the higher prevalence of AIDS, TB, and other infectious diseases among prison populations.

Until recently the provision of health care outside prison walls was quite "unmanaged," a consequence of how the medical profession and insurance plans have been organized. Not surprisingly, prison health care generally was weakly managed. Especially during the last decade, however, a variety of methods and organizational forms have been developed in the free community with the aim of delivering patient care more cost-effectively. Even though the actual cost-effectiveness of these "managed care" techniques remains open to question, they are being transported into prison health care systems in some States. Not all can be adapted to prisons, because there are many conditions in correctional systems that work against cost-effective health care. However, a number of conditions in prisons support managed care strategies, including global budgeting, universal coverage, mandatory "enrollment," limited patient choice, and an ability to regulate the utilization of services that is greater than the one in the larger community.

One means of containing spending is to reduce the costs of the discrete building blocks required in prison health care—goods and services. These include obtaining advantageous prices for pharmaceutical supplies and other durable equipment; negotiating lower prices for services purchased from physicians, hospitals, laboratories, pharmacies, and other ancillary providers; and "making" the service directly, via prison employees and prison-owned facilities. The latter includes hiring physicians on staff rather than purchasing their services as independent consultants, creating hospitals and other medical facilities within prison walls, and providing ancillary diagnostic services directly. Still another way of lowering costs is sharing facilities with other government agencies.

In addition to efforts to restrain health care spending by lowering the costs of providing or purchasing goods and services, some correctional administrators are seeking to manage the *use* of these services—especially expensive services—more effectively. They do this in different ways.

First, some administrators are establishing explicit limits on the types of care that will be provided in prisons. Second, by adopting "utilization management" techniques that were developed in the free community, which involve case-by-case reviews, health care providers themselves seek the most cost-effective treatment path for each patient. Third, some prison systems are creating intermediate-care facilities, offering services more intensive than conventionally available in infirmaries but less intensive than in acute-care hospitals. With such resources, prison administrators are able to match patient needs with more appropriate—and cost-effective—levels of care. This parallels developments in the free community, where expensive hospitalization is being avoided by the increased use of alternatives such as outpatient surgery. A fourth approach is to dissuade prisoners from using services unnecessarily by requiring "co-payments," or fees. Fifth, the use of unnecessarily expensive medicines can be limited by means of restricting prescription practices to lists of approved medicines. Finally, greater attention to preventing and detecting diseases may increase the likelihood of averting high-cost treatments.

One method of bringing prison health services under unified and focused management is to contract for comprehensive health care. This may create conditions supportive of cost-conscious management: fixing a global budget that has to be adhered to, putting managers at financial risk for their performance, and enabling managers to staff appropriately, unencumbered by submarket salary levels and inflexible personnel regulations. Although contracting for discrete services is widespread, only a few States have much experience with contracting for both the management and the delivery of all health care services.

Central to the success of any management strategy is the ability to monitor performance. Managers need to know the kinds of resources that are being employed, at what cost, the nature and extent of the demand for services, how well

resources are being matched to demand, the health and system-level outcomes of the services provided, and how effectively—and cost-effectively—objectives are being met. For such monitoring, individual patients' records—even if they are automated—are insufficient. More comprehensive

management information systems are needed. These systems may be designed to incorporate the information requirements for individual patient care as well. At present, such systems in State and Federal correctional departments are in their early stages of development.

Chapter 1

The Rising Cost of Care

Spending for the health care of prisoners has been increasing rapidly during the last several years. It is difficult to know precisely how spending has changed at the State or local level in the absence of an ongoing accounting and reporting system, but a comparison of data from three nationwide surveys provides some indication. In 1982 and in 1985 Contact Inc. conducted surveys of expenditures for prisoner health care by State departments of corrections.¹ In 1990, the National Commission on Correctional Health Care undertook another survey of State departments and obtained information about 1989 expenditures for health care, employing similar categories.² Between 1982 and 1989, the average per prisoner expenditure for health care by the States responding to the surveys increased by 103 percent. Although the year-to-year increases may have varied during this period, the average annual increase was 15 percent. Between 1985 and 1989, the average increase was 54 percent, or 13 percent per annum, on average.³ Total expenditures for health care rose even faster than per capita amounts during these periods, because the numbers of prisoners under custody increased dramatically throughout the Nation.

These per capita increases outpaced the rates of more general inflation during these years. Between 1982 and 1989, for example, the prices of services in general—as measured by the U.S. Bureau of Labor Statistics' "market basket" of services—increased by 37 percent,⁴ about a third as fast as the 103 percent increase in average per prisoner correctional health care expenditure during this period. Nationwide, the increase in correctional health care spending was also greater than for all other correctional services combined. This is evident in the changing proportions of State prison system expenditures on health care. In 1982, 7.2 percent of all expenditures were for health care; by 1989, this had risen by 9.5 percent. In the State of Washington, prison health care costs have been increasing at twice the rate of non-health care costs since the mid-1980's.⁵

Some of the increasing costs of health care probably stem

from improvements in the amount and quality of care provided to prisoners. In the early 1970's, the Federal courts abandoned their inattention to prison administration and began finding that the conditions of many State prisons—including the conditions of their health care systems—violated the Eighth Amendment's ban on "cruel and unusual" punishment.⁶ It was not unusual during this period for the health staff in prisons to be physicians with institutional licenses or unlicensed foreign medical graduates, augmented by unlicensed medical corpsmen and untrained inmates serving as "nurses." These inmate nurses administered treatment, gave medication, and in some States even performed suturing and minor surgery. In addition to this lack of staff professionalization, there were confused or unclear lines of authority, inadequate record keeping, and inadequate access to health care services. Confronted with evidence of inadequacies in State after State, Federal courts began to develop standards and rules to govern prison health care. Since then, the courts have ordered prison administrators to remedy substandard conditions and to bring their health care systems up to constitutional and professional standards. These improvements have come at a substantial cost. In Texas, for example, prison health care expenditures increased by 473 percent between 1982 and 1989,⁷ which was the result in part, at least, of the U.S. Federal district court's demands in *Ruiz v. Estelle* (1980), which found the conditions in the State's prisons, including their health care services, to be unconstitutional. In many States, court decisions against prison systems have been a powerful impetus not only to improve health care but also to stimulate the emergence of a more professionalized correctional health care administration. This professionalization has no doubt improved the quality of services over the levels prevalent two decades ago and may account for some of the increase in spending on health care.

Health care in the larger society also got more expensive during the 1980's, and these costs were passed on to prison systems that purchased goods and services in the health care

market. Between 1980 and 1990, total national health care expenditures increased by 170 percent, or 17 percent a year, on average.⁸ This 170 percent change did not occur simply because the U.S. population grew larger and more people were demanding services. During 1992, for example, health care costs increased by 12 percent, whereas the U.S. population increased by only 1.2 percent. During the next five years, health care costs are expected to go up by 12–15 percent each year—much faster than the population is expected to grow—unless significant changes are made in the health care system.⁹ These growing costs reflect changes in the price of services, the spread of more expensive technologies, rising expectations regarding the level of health care to be provided, a graying population, and rapid growth in Medicare and Medicaid expenditures, among other forces.

One effect of Federal court attention to prison conditions has been to increase the dependence of prison systems on community health care providers. As discussed in chapter 4, the courts have declared that prisons must provide a level of care that is equivalent to that found in the larger community. Consequently, prisons now draw much more heavily than they did two decades ago on the health care resources available in the larger community—including physicians, hospitals, other ancillary services, equipment, and supplies—and their budgets are now more vulnerable to the forces that increase the costs and prices of those needed resources. Not surprisingly, expenditures for goods and services purchased from community providers are rising sharply in many States. In California, for example, the Department of Corrections projected a 29 percent increase in its costs for community hospital contracts alone during fiscal year 1994.¹⁰ In the Federal Bureau of Prisons, there was a 27 percent increase in per capita spending between fiscal years 1990 and 1993 for inpatient, outpatient, and other services from community providers of care.¹¹

Pressures on Health Care Spending in the Coming Years

Increases in prison health care spending are not likely to abate in the near future. Because of their dependence on health care providers in the larger community, prisons will be subject to the same forces that lead to price and cost increases in the larger health services economy, as discussed in the next chapter. In addition, several forces affect prisons more specifically, which put upward pressures on spending. Prison systems continue to be sued for inadequate medical and health care; inmate populations are aging; and the prevalence of infectious diseases—especially high-cost ones such as HIV/AIDS and tuberculosis—is increasing.

Litigation

As of January 1994, 39 States plus the District of Columbia, Puerto Rico, and the Virgin Islands were under court order or consent decree to limit the population and/or improve conditions in either the entire State prison system or its major facilities. Thirty-three jurisdictions were under court order for overcrowding or unconstitutional conditions in at least one of their major prison facilities, and nine were under court order covering their entire prison system. By that date, only three States had never been involved in major litigation challenging overcrowding or the conditions of confinement in their prisons. Challenges to health care provision were parts of the Federal cases in 28 States.¹²

Graying Prisoner Populations

The near future will also see a larger number and proportion of elderly prisoners, which will put even more pressure on spending for health care. According to the American Correctional Association, inmates aged 55 or older made up more than 3 percent (18,800) of the total population of Federal and State prisons in 1988. By the year 2000, according to one estimate that was developed before the recent spate of mandatory sentencing provisions for repeat offenders (the “three strikes” laws), there will be 125,000 prisoners over the age of 50, of whom 50,000 will be older than 65.¹³ This aging of the prison population reflects in part the rising number of older people in the U.S. population at large, both because of improved longevity and because the leading edge of the large baby boom cohort will be 50 years old in 1996. The aging of prisoner populations may be hastened by the passage of mandatory minimum sentencing laws and the trend toward longer sentences generally, including life without parole.

Older prisoners are disproportionately heavy consumers of health care services. Approximately 31 percent of all personal health care expenditures nationwide were for persons 65 years of age or older.¹⁴ In prisons, “older” persons are commonly considered to be 50 years of age or older, in part because the health of the average 50-year-old prisoner approximates the average health condition of persons 10 years older in the free community.¹⁵ These prisoners will require more medical services, including costly long-term care. In 1989 the Federal Bureau of Prisons estimated that by 2005, 16 percent of its prisoner population will be 50 years or older compared with 11.7 percent in 1988. Whereas the cost of providing treatment for cardiac and hypertensive disorders among the population 50 or older was \$6.7 million in 1988, the Bureau estimates that these treatments will cost \$10.1 million in constant 1988 dollars during the year 2000.¹⁶

AIDS, Tuberculosis, and Other Infectious Diseases

It is probably fair to say that most prisoners, prior to their incarceration, have had little or no health care and that their health is poorer than that of the general population. Moreover, there is evidence that the prevalence in prisons of high-cost diseases—especially AIDS and TB—has been increasing faster than in the general population. A NIJ/CDC survey revealed that a total of 8,525 AIDS cases had been reported in State and Federal prisons by early 1993.¹⁷ This number was 66 percent higher than the number found in a similar survey conducted two years earlier. Indeed, large annual increases in numbers have been reported since the first of these surveys in 1985. By early 1993, the number of inmates dying of AIDS or AIDS-related diseases reached 3,474. Although the proportion of all prisoners infected with HIV is not known for lack of universal testing, selected studies report finding rates of HIV seropositivity ranging from less than 1 percent in some prison systems to about 20 percent in others.

These prevalence rates are considerably higher than in the general population. In the U.S. population at large, the AIDS incidence rate was 18 cases per 100,000 in 1992, up from 17 per 100,000 in 1990. In all surveyed Federal and State prisons, the incidence rate was 362 per 100,000 in 1992–93, up from 181 in 1990—an increase of 100 percent.¹⁸ Commenting on the fact that injection drug users are at high risk of contracting HIV infections, the National Commission on AIDS reported in 1990:

By choosing mass imprisonment as the Federal and State governments' response to the use of drugs, we have created a de facto policy of incarcerating more individuals with HIV infection. Under the present policy, the percentage of drug offenders in the Federal prison system will rise by 1995 from 47 percent to 70 percent. Clearly, we are thus concentrating the HIV disease problem in our prisons and must take immediate action to deal with it more effectively.¹⁹

The growing numbers of AIDS cases in prisons will place a heavy burden on their health care systems and their budgets. The lifetime cost of caring for a single person with AIDS was estimated at \$85,000, or \$32,000 annually, in the free community. The annual cost of caring for an asymptomatic HIV-infected person in the free community was estimated at \$5,000.²⁰ The costs of caring for them in prison may be higher, although it is difficult to determine what these costs are for lack of sufficiently precise data collection systems to

track the utilization of health care services and expenditures by type of diagnosis. In 1989 an Arkansas correctional health administrator reported that the cost of caring for a single AIDS patient ranged between \$55,000 and \$125,000 a year and that medication for an HIV-positive inmate showing clinical manifestations ran about \$9,600 a year.²¹ The source of these estimates was not shown, however, so it is difficult to evaluate them.

The incidence of tuberculosis has increased especially rapidly in prisons and jails, due to the concentration among confined populations of persons with high-risk factors—including poor health care before commitment, crowded or itinerant living conditions, prior IV drug use, and compromised immune systems (principally from HIV). In a 1992–93 survey of correctional facilities conducted by Abt Associates Inc. for the Centers for Disease Control and the National Institute of Justice, a tuberculosis case rate of 121 per 100,000 inmates was reported.²² This was 13 times the rate for the general U.S. population.²³ In total, the correctional systems responding to the survey reported 53,000 TB-infected inmates—that is, testing positive in purified protein derivative (PPD) skin tests—48,000 of whom were in prisons and the remainder in surveyed jails. The proportion of women so infected was slightly higher than that of men: 12 percent versus 10 percent. Inmates were not the only ones at risk: the survey found 43 current cases of TB among correctional staff and estimated that another 600 correctional staff were TB-infected.²⁴

Especially troubling is the emergence of drug-resistant TB. These strains have been found in New York, Texas, Miami, and San Francisco. Drug-resistant strains of TB develop when individuals begin taking medication for TB but do not finish their course of treatment. National estimates suggest that only three-quarters of all persons beginning treatment complete the full 12 months of therapy. Treatment completion rates are far worse in some urban areas: 60 percent in Washington, D.C., 58 percent in Chicago, 54 percent in New York, and a staggering 11 percent among tuberculosis clients at Harlem Hospital, which serves a high-risk, poor, African-American population.²⁵

The available treatment for drug-resistant TB involves risks and takes much longer (up to two years), and treatment efficacy is poor. Among non-immunocompromised individuals, multidrug-resistant strains have a 50 percent cure rate and are not preventable. Among immunocompromised individuals, such as those co-infected with HIV/AIDS, disease management and control are not even that successful. During 1991, multiple and rapid TB fatalities (mean survival duration after sputum-culture diagnosis was 25 days) oc-

curred in the New York State correctional system as a result of exposure to and infection with multidrug-resistant strains of tuberculosis among immunocompromised (HIV-infected) inmates and staff. More than 50 instances of TB skin test conversions occurred as a result of this brief epidemic among inmates and others who came in contact with these cases.²⁶

Nationwide, the number of drug-resistant TB cases is still relatively small. The CDC/NIJ survey of 1992-93 reported finding 141 cumulative cases of drug-resistant TB, of which 75 (53 percent) were resistant to both isoniazid (INH) and rifampin (RIF), the two leading TB drugs.²⁷ Nonetheless, TB infection, especially in combination with immunocompromised inmates, amounts to a kind of public health dynamite. Correctional facilities are nearly ideal places for transmitting the disease, and large numbers of prisoners return to the free community to live among others who are already at high risk of infection.

Complicating efforts to control TB and AIDS are the fears and attitudes of prisoners. Among some prisoners, a fatalistic view of life may make the loss of certain privileges and freedom of movement a far more serious matter than the detection and treatment of their own infection. Prisoners may also view medical care as something that is done to them at the pleasure of authorities. They may distrust authorities in regard to whether they are delivering the right care on time. In one recent prison riot, prisoner demands included a cessation of TB testing.

The Need for Effective Management

The need for effective management of health care services will become even more pronounced, especially if prison populations keep growing at a fast pace in the coming years. The following chapters examine several strategies that managers in State prison systems have adopted to control costs and to manage the provision of health care in prisons more effectively.

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Chapter 2

Emerging Strategies to Manage Costs and Care

During the last 25 years, and especially in the last decade, government agencies, private insurance companies, and health care providers have developed a number of strategies to control the cost of health care more effectively. Some of these strategies have been pursued because they also appear to promise the delivery of better care. Whether these innovations have, in fact, succeeded either in controlling costs or in delivering better care is subject to considerable debate. However, even in the absence of clear and compelling research on the effectiveness of these cost-containment procedures in the free community, many correctional managers have begun to adapt them for use in prisons. As this chapter will discuss, the importation of these "managed care" practices into prison systems raises several interesting issues, as well as challenges in implementation. Of special importance is the greater demand in prison systems than in the free community for managed care strategies to improve the *quality* of care. Whereas cost containment has been the dominant objective animating the development of managed care in the larger society, improving the quality of care is at least of equal importance in prison systems. For this reason, the goals of managed care strategies are perhaps more demanding in prison environments than elsewhere.

This chapter presents a brief overview of the changes in the health care market in the free community that have resulted from the growth of managed care plans. Because prisons operate in this larger health care economy, and because the nature of that market constrains correctional administrators' ability to control spending for health care in prisons, the pertinent features of this larger economy that contribute to rising costs deserve attention. More precisely, this chapter examines the following:

- Managed care practices that have been developed in the larger community for the purpose of containing costs.
 - New forms of organization that have emerged in recent years to deliver managed care and to restrain cost increases.
 - What research shows about the cost-effectiveness of managed care.
 - Conditions in American prisons that may support cost-effective managed health care.
 - Conditions in prisons that work against cost-effective health care services.
- Various features of unmanaged health care services in the larger community that are thought to be implicated in the rapid rise in costs.

Features of "Unmanaged" Health Care That Affect Costs

Health care is delivered in this country in a largely unmanaged, weakly regulated, and decentralized market. Government interventions in the health care market have been sufficiently broad, however, to trigger a vigorous debate about whether more or less regulation is needed to end health care inflation and to promote a better use of resources. Federal income tax policy, various Federal and State regulations governing professional licensure, controls over medical facility construction, antitrust exemptions to insurance underwriters, mandated health insurance benefits, subsidies to the poor and the elderly, and Federal control over which new drugs and new technologies are to be introduced into the market all create a market that is half-free and half-controlled. According to one view, these government interventions have artificially stimulated demand and diminished the stake that consumers normally have in purchasing goods and services prudently. At the same time, government interventions have restricted supply and promoted monopolistic prices. From

another view, this market is dominated by private independent professional physicians, private hospitals, and private firms that deliver pharmaceutical supplies, equipment, and insurance services. Although the emergence of managed care organizations and price controls by government and commercial insurance companies have begun to modify this structure, several essential characteristics of the market remain. These include a predominance of professionally autonomous physicians, a high degree of medical specialization, purchasing choices by individual consumers/patients, fee-for-service payment arrangements, multitiered public and private payment, unregulated pricing by physicians and hospitals, weak controls over the quality of care, and the low priority the medical profession assigns to making cost-effective clinical decisions. Many of these features are commonly identified as "culprits" in health-reform debates.

Insurance Hazard

All insurance is subject to the problem of "moral hazard," namely the tendency of people to be less careful about taking a risk when they are insured against its consequences. In health care, people are more likely to have a treatment when they know that insurance will cover much or all of the price. In addition to this general problem, Federal income tax regulations have encouraged many employers to offer health insurance as an income-tax-free fringe benefit. This encourages people to carry more insurance coverage than they would if they paid for their policies with income subject to Federal income tax. In the prison community, there is an analogy: all prisoners have de facto "insurance" and thus similar incentives to seek more care than they would if they were paying for it with their own money.

Professional Autonomy

Physicians in this country have acquired a great deal of autonomy in their practice of medicine and have been remarkably successful in protecting it. Most are independents, in practice by themselves, and support themselves by collecting fees for services they provide. They operate relatively free of government interference, although government agencies and insurance companies increasingly regulate their work. Physicians control membership in their profession, have gained from governments the authority to license, and are largely self-policing. One effect of this decentralized structure is the absence of a national health care policy regulating the numbers of physicians trained and their distribution throughout the country.

In recent years, physicians have abandoned solo practices in large numbers, affiliating with networks composed of other physicians and/or hospitals and/or insurance companies. However, in the most prevalent form of association, the preferred provider network, physicians retain their status as independent professionals who rely on fees—even though capitated or discounted—for their income, rather than collecting salaries from employers.

Specialization

The American health care industry is also characterized by a high degree of physician specialization. Consequently, patients' medical care is delivered by a collection of primary care physicians and specialists, who may or may not be associated through a formal network. The economics of specialization obstruct the tighter integration of health care services. Whereas it requires a population base of between 3,000 and 5,000 people to support the practice of an individual primary care physician, the population required to serve certain specialists is much larger. Indeed, for some specialties, the required population base exceeds that of many large urban centers. In regions with few specialists, these physicians acquire quasi-monopolistic powers. The ability of purchasers to affect the conditions of specialists' practices and their fees is correspondingly weak.¹

Patients' Ability to Choose

In the market that existed unfettered before the emergence of managed insurance plans, patients were free to choose their physicians as well as the places they received other health care services. This reinforced the decentralized nature of the health care market. Moreover, because health care purchasing decisions were made by individuals rather than by collectives or large-scale organizations, providers had great leverage over purchasers with respect to the price of their services.

Limited Consumer Cost-Sharing and Accountability

Because many consumers have insurance, they are obliged to pay only a portion of the cost of services they receive. Between 1965 and 1989, the consumers' out-of-pocket share of total costs paid declined from about 50 to about 21 percent.² Because the consumers' share is now small and getting smaller still, decisions about purchasing health care services are not as constrained as they would be if consumers

were paying full price. Providers are able to take advantage of this insensitivity to price by raising prices.

The Primary Care Physician as Occasional Manager

In this decentralized and highly specialized system, patients have their care managed—if at all—by their primary care physician. Because patients are free to purchase physician services in an open market, restricted only by their ability to pay, some may manage their own care, obtaining specialists as desired, perhaps with referrals by one or more of the physicians they see. However, most persons lack information about the market and rely on their primary care physician for advice, for prescribing medications, and for making referrals to specialists, diagnostic testing, and hospitals. Because a large proportion of the costs of health care are payments to specialists and hospitals, the primary care physician is the de facto financial manager in this decentralized and loosely coupled system.³ They have the strongest role in determining health care costs by virtue of their ability to control the price of their own services and to order others' services.

Provider-Induced Demand

Because patients delegate clinical decisions to physicians to such a great extent, physicians may have the ability to control not only the price they charge but also the demand for their own services. They may, consequently, respond to controls of their prices by increasing the volume of work demanded of them to offset declining revenues.⁴ This apparently occurred when physicians' fees were frozen in the Medicare program in the mid-1980's.⁵

Inattention to Cost-Effective Practice

Physicians are not trained to be cost-effective providers of care. Their medical educations, residency training programs, and the majority of practice arrangements do not provide them with instructions on choosing alternative types of care with an eye to saving money. "It is therefore not surprising," write Greifinger and Bluestone, "that most physicians are ignorant of the vast potential to reduce unnecessary hospitalization, surgery, diagnostic testing, and therapeutic interventions."⁶ Partly because of this, a substantial amount of care—including high-cost hospitalization and surgical procedures—is medically unnecessary. Some analysts estimate that 10–20 percent of all hospital admissions are unnecessary or inappropriate, as are 20–30 percent of total patient days in

hospitals.⁷ Others, however, question whether these estimates are too high.⁸

Medical Malpractice Suits and Defensive Medicine

To avoid malpractice suits and the financial penalty that can ensue, many physicians have altered their practice of medicine. They may protect themselves by ordering more procedures and tests than they might otherwise. Some may refuse to accept higher-risk patients, and their inattention to consumers' costs is reinforced.

Cost-Insensitive Drug Prescriptions

Physicians' practices when prescribing drugs is subject to few incentives to economize. Physicians do not pay for the drugs they prescribe, and patients pay but a fraction of the cost when insurers or other third-party payers cover prescription drugs. (To be sure, not all insurance plans cover prescription drugs' costs.) As discussed earlier, physicians are socialized to value not cost-effectiveness in treatment but rather clinical effectiveness. There exist few studies comparing the cost-effectiveness of alternative treatments; therefore physicians have little reason not to prescribe the drug they believe has the highest chance of success, whatever the cost.

Fee-for-Service Payment

Traditionally physicians have been paid on a fee-for-service basis. In an unregulated market, the amount charged is determined by the forces of supply and demand. This method of compensation rewards providers who serve larger numbers of patients and do more to them. As Berenson notes, this creates an incentive that is "wildly inflationary."⁹ Consequently, health care costs in countries that rely largely on fee-for-service payments (the United States and Canada) have experienced more rapid increases in health care spending than European countries that rely on other forms of compensation, such as capitated payments.¹⁰ As discussed later, various attempts to contain costs aim to change incentives by adopting other methods of payment.

Unregulated Pricing of Hospital Services

Until the early 1980's, hospital prices were unregulated and determined largely by market forces. Even with the establishment of Medicare in the mid-1960's, pricing procedures remained little monitored. Under Medicare's cost-based reimbursement procedures, hospitals were allowed to com-

pute reimbursable costs to allow for returns on invested capital. Consequently the reported costs of services were affected by the firm's accounting practices, and there were considerable opportunities for establishing higher costs by revaluing capital assets. Moreover, these cost-based reimbursements were required only for services provided to Medicare and Medicaid patients. Other patients were charged a market-determined price.

Mixed Private and Public Payment

Providers are paid largely by patients, by commercial insurance companies if patients are employed and/or covered, and by government programs if they are not covered or are otherwise entitled (for example, are poor and elderly). In this multitiered system, many providers who cannot obtain sufficient payments for serving uninsured or underinsured patients subsidize them by charging insured patients higher prices.

Technology Growth and Science-based Medicine

By harnessing scientific research to what was previously a largely unscientific craft, Western medical practice has greatly increased its power to diagnose and cure diseases and to promote health. This marriage with science has resulted in a rapid development of new and improved technologies of care, which are diffused quickly in the U.S. health care market. The availability of these new technologies puts pressure on health care costs, because once they become available patients increasingly demand them and physicians employ them, thereby raising the expectations of what constitutes acceptable levels of care. However, not all new technologies raise the cost of care. Indeed, they may provide the means for treating patients more cost-effectively—by the use of drugs instead of more expensive interventions, for example. Thus, the lengthy process for Federal approval of new drugs has been criticized for increasing both mortality and costs by delaying the introduction of drugs widely available in other technically advanced nations.¹¹

Lack of Organized Controls Over the Quality of Care

Because the health care system in this country is largely decentralized and only weakly regulated, controls over the quality of care are thinly developed. The medical profession has been reluctant to exercise strong controls over physicians' practices, and the threshold for putting incompetent

doctors out of business is quite high. With such a large number of physicians working in solo practices, the opportunities for friendly peer review and education are limited. A contrary view, however, holds that more control would lead professional groups to exclude competitors from the market. The long history of restrictions on the use of midwives and on the scope of practice for nurses is often cited as an example of how "quality control" can be a screen for collusion by the medical profession. State certificate-of-need (CON) programs are similarly disparaged as clubby devices to exclude competitors.¹²

The Development of Managed Care To Contain Costs and Change Patterns of Practice

Beginning in the 1940's, a variety of procedures and new organizational forms of practice began to be developed to gain better control over health care spending. Network-based managed care plans were first organized then, including the Kaiser-Permanente Plan, which began in California, Washington, and Oregon in 1942, and the Health Insurance Plan of New York, which began operating in 1947. The movement toward managed care got a big boost later, in the early 1970's. Alarmed about rising health care costs, the Nixon administration embraced health maintenance organizations (HMO's) as the best means of controlling costs and introduced legislation that resulted in the 1973 HMO Act, Public Law 93-222. This act legitimized HMO's and authorized funds for grants and loans to support their development. It also placed overrides on State mandates that restricted HMO development and required employers with at least 25 employees to offer a qualified HMO as an option to their employees, if requested by a local, federally qualified HMO.¹³ By the late 1970's, large employers also were beginning to realize the potential benefits promised by managed care in reducing the costs of employee health benefit plans, and the market for managed care plans became increasingly competitive. Managed care was extended to Federal government entitlement programs when the Omnibus Budget Reconciliation Act of 1981 authorized Medicaid waivers permitting State medical assistance programs to limit patients' freedom to choose providers—a liberty otherwise guaranteed by law—and to institute managed care programs.¹⁴ By 1982 more than 1,000 such programs had been initiated.¹⁵

Although the term "managed care" eludes precise definition, it generally refers to the kind of care provided by HMO's and preferred provider organizations. Generally, managed care is a system that integrates the financing and delivery of health

care services to covered individuals. The methods employed to deliver managed care include the following.

Restriction of Patients' Choices

Patients covered by either private insurance or government entitlement programs are subject to disincentives designed to reduce their ability to select the type, level, and provider of care. If they elect services or providers deemed ineligible by third-party payers, they must pay for those services themselves.

New Forms of Compensation

Third-party payers developed new methods for compensating providers, departing from the practice of cost-based reimbursements or undiscounted fees for service. These alternative payment methods include negotiated discounts on providers' normal fees or charges; fixed payment rates for specific types of service or for hospitalization; and payments of lump sums in advance to providers for enrolled clients' care. These payment arrangements are designed to control costs by various means. The most common form of the incentive is for the payer to shift some of the financial risk of care to the providers. Some arrangements impose fixed limits on amounts to be paid to providers and put the provider at risk for excessive costs. Others, instead of establishing fixed limits, create various incentives for providers to deliver less costly care.

Selected Contracting To Build a Provider Network

Another strategy is for payers to establish a network of providers, hospitals, physicians, and ancillary services willing to accept discounted fees or standardized rates in exchange for a promise to channel enrolled clients to them. To be included in the network, providers also may be required to meet certain minimum requirements regarding professional standards, including board certification and a relatively "clean" history of medical liability claims. Some managed care plans also choose physicians who make less frequent use of expensive resources such as specialist physicians and hospitals. To evaluate physicians' use of resources, managed care plans may develop information systems to track physicians' referral practices, yielding "profiles" of those physicians. Enlisting physicians and providers in networks may have the effect of strengthening the payer's leverage over providers. As providers become increasingly dependent on a single buyer (or on patients covered by a

single payer) for their practice, their ability to maintain high prices for their services diminishes.

Constraints on Utilization of Expensive Care

Central features of managed care strategies are limitations on the patients' and providers' abilities to utilize higher-cost services—especially specialists and hospital care—and/or disincentives to utilizing those services. Most policies set explicit limits on types of care to be covered; financial incentives also are created to encourage patients to use the network of providers; gatekeeping procedures are developed, either by charging primary care physicians with the responsibility for making referrals or hospitalization, or by creating positions for nonphysicians to act as case managers; utilization management and review procedures are established, and authorization for utilizing expensive services is required; risk-sharing arrangements with patients and providers to discourage ostensibly unnecessary care are developed; less costly procedures are substituted for more costly ones; and "practice pattern guidelines" are developed to establish norms for clinical decisions, specifying what is deemed appropriate care for specific types of patients and cases.

Attention to Preventive Medicine

By encouraging and even supporting health maintenance and disease prevention activities—including periodic screenings and checkups—payers seek to avert more costly episodes requiring acute care or chronic care for illnesses.

Direct Provision of Services

One means of controlling expenditures for purchases of services delivered by independent providers—physicians, specialists, and hospitals—is to purchase as few as possible while providing as many as possible directly to patients. The health maintenance organization is, in essence, an insurance plan that "makes" medical care using its own employed staff rather than purchasing care from independent professionals and firms. By assuming responsibility for the organization, production, and financing of medical services directly, payers gain control over a large proportion of the components of those services that affect their costs.

Global Budgets

Recent interest in national health care reform has drawn attention to "global budgets," in the form of either expendi-

ture caps set administratively to limit overall spending for health care services or an overall target for spending for a defined set of services and a defined set of payers. "They are the most potent weapon in the arsenal of cost-containment strategies," writes Carl Stevens, "and they are increasingly being urged as the strategy of choice."¹⁶ Global budgets covering entire populations are common in other Western industrialized countries such as Canada, the United Kingdom, and several European countries, but they are relatively rare in the United States. Interestingly, hospitals in the Department of Veterans' Affairs receive global budgets for providing some hospital services to specified classes of veterans. Global budgets are "global" in that they are designed to limit total spending for health services or, at least, to come close to that target. As such, global budgets are not in the same class as the other cost-containment strategies discussed earlier. They do not constitute a cost-containment policy per se but are a means for calibrating the parameters of other cost-containment policies.¹⁷ For example, if setting rates for services delivered by providers is the cost-containment strategy of choice, expenditure limits affect the level of the rates. As Ashby and Greene write, global budgeting "offers the potential for a significant reduction in the rate of spending growth, but also poses the risk of adverse effects on access to services or the quality of care."¹⁸

Recent debate on global budgets has emphasized their potential for creating de facto price controls and thus significant distortions in marketplace signals to allocate resources. Perhaps more relevant to prison authorities is the following observation. Global budgets are set by a political process that may be at odds with individual consumers' wishes about what they would be willing to spend and what treatments they would choose. This may create significant disagreements between political authorities and consumers analogous to disagreements between prison authorities and prisoners over what is the right amount of care.

New Forms of Organization

During the last few decades, but especially since the mid-1980's, these various approaches have been combined in different ways—along with different arrangements among patients, physicians, hospitals, and third-party payers—to create new forms of organizing health care services. The *raison d'être* of these new forms frequently has been to contain costs better so as to lower prices, thereby gaining a competitive advantage in the marketplace for insurance and health care services. The principal forms include managed indemnity plans, preferred provider organizations (PPO's), exclusive provider organizations (EPO's), staff-model health

maintenance organizations (HMO's), independent practice association (IPA)—model HMO's, network-model HMO's, group-model HMO's, and point-of-service (POS) plans.

Managed Indemnity Plans

Traditional indemnity plans, which once dominated the health care landscape in this country, pay for health services without questioning or reviewing the appropriateness of medical decisions. (Until recently, prisons purchased health care services in this way.) Faced with competition from newer forms of insurance and provider agreements—especially HMO's—traditional indemnity plans began to incorporate managed care practices. These have been limited typically to the incorporation of utilization review procedures, such as preadmission certification for hospitalization, monitoring claims, and denying or reducing payment for claims deemed unjustified. Other aspects of the health care delivery system were left undisturbed. The traditional forms of compensating physicians or hospitals were not changed; provider networks were not created; patients were not restricted in their choice of providers; and primary care physicians were not required to become gatekeepers, controlling access to specialist physicians or hospitals. The adoption of these few managed care approaches has failed to stem the loss of market share held by indemnity plans. By 1992 indemnity plans were held by only 45 percent of all of those with health care coverage, 41 percent of whom were in managed indemnity plans.¹⁹

Preferred Provider Organizations (PPO's)

A variant of managed indemnity insurance plans is plans that rely on preferred provider networks. Providers included in these networks agree to charge discounted fees, capped fees, and standardized rates for specified types of services or to accept per capita payments to cover all services utilized during a specified period. Patients retain free access to specialists and hospitals, as prior authorization is not required. Patients are allowed to use non-network providers but are required to share a larger proportion of the cost of such care and to pay higher deductibles. Insurers may also limit admission to the PPO network to physicians who are judged to be both competent and cost-efficient.²⁰

Exclusive Provider Organizations (EPO's)

These are similar to PPO's. However, services received from non-participating providers are not covered, and providers are reimbursed on a discounted fee-for-service basis.

Point of Service (POS) Plans

These allow patients increased flexibility. They are similar to PPO's in that coverage is retained for services received from non-participating providers but at a lower benefit level. As long as members stay within the provider network, however, they receive full coverage. Some HMO's offer a similar benefit through an out-of-plan benefits rider or POS option.

Health Maintenance Organizations (HMO's)

HMO's represent the tightest integration of providers with those who cover the costs of care. Four principal variants exist: the staff model, the group model, the network model, and the independent practice association (IPA) model. In both the staff-model and the group-model HMO, physician care is provided almost entirely by doctors on salary, who practice in the facilities owned by the HMO. Their practice consists entirely of patients enrolled in the HMO. Consequently, they are not in private practice but in "corporate practice." In contrast, in IPA-type HMO's, physicians continue to be compensated on a negotiated fee-for-service basis, practice in their own offices, and devote only a portion of their time to caring for enrollees in the IPA HMO. The staff- and group-model HMO's are consequently the most tightly integrated HMO's. The number of factors employed in delivering health care services are under a unified corporate control.

All HMO's accept fixed—"capitated"—prepayment, in return for which they agree to provide all health care services within a range established in advance. Patient care is tightly organized, and HMO's employ procedures to manage the utilization of hospitals and to promote alternatives to hospitalization for diagnostic testing. They encourage the use of ambulatory surgery where possible.²¹ Primary care physicians, assigned to patients, act as gatekeepers, controlling access to all other health care services. (Not all IPA-model HMO's employ primary care gatekeepers, however.) Patients are thereby most restricted in their choice of providers in HMO's. They must use those physicians in hospitals associated with the HMO. If other providers not associated with the plan are sought, they must be referred by an HMO physician if they are to be paid by the plan. HMO's share a unified patient record, which facilitates tightly managed care. In this structure, the primary care physician becomes the clinical and financial manager of patient care.

Physicians who practice in HMO's are perhaps the most cost conscious, because they are at greater financial risk. Because of capitated prepayments, HMO's profits are at risk if spending is uncontrolled. HMO's therefore recruit, screen,

and select physicians who appear willing to learn and to practice cost-efficient medical care. Especially in physician-led HMO's, a central strategy for controlling costs is monitoring physician behavior through organized peer review and educating the participant physicians in the practice of cost-efficient care. Monitoring practice and providing friendly feedback are much easier in HMO's than where the insurance function is carried out by a separate business entity. In other words, HMO's seek to change physicians' behavior not so much by strict regulatory means but by educational means and financial incentives. They give feedback to physicians on variations and procedure rates—for example, how their practice stacks up against other physicians'—and give bonuses to those physicians who practice cost-efficiently.

HMO's combine the insurance and health care delivery functions. In some instances, they were formed when insurance companies chose to "make" their health care services directly rather than "buy" them from private providers. In other instances, they emerged from alliances of physicians who elected to join their practices in various ways and to offer insurance plans.

By 1992 all but 4 percent of insured persons were covered by plans incorporating at least one component of managed care. Forty-one percent were in indemnity plans that had adopted at least one managed care strategy. The remainder were in network-based managed care plans. The largest of these plans were PPO's (26 percent of all insured persons), HMO's (22 percent), and point-of-service plans (7 percent).²² Among those enrolled in HMO's, the most popular were the IPA models. In 1992 this type of HMO accounted for 47 percent of all HMO enrollments, compared with 25 percent in the group model, 16 percent in the network model, and 11 percent in staff model.²³ Since 1980, enrollment in group or staff HMO's increased only slightly, while those in IPA, network, and mixed HMO's grew substantially. The growth of PPO's or POS plans has been the fastest, however, taking the dominant share of the network-based managed care plans since their emergence in 1984.

With these developments, the health care industry is undergoing a number of significant shifts:

- Integrated capitated payment plans are replacing fragmented fee-for-service arrangements.
- Passive payers—employers and government financing agencies—are being replaced by active purchasers.
- Patients are changing from passive consumers of health care services to more active participants.

- Opportunities for individuals, providers, and payers to avoid taking responsibility are diminishing, with parties required to assume greater responsibility for their roles in receiving or giving health care.
- A near-exclusive focus on illness is giving way to a greater emphasis on health and wellness.
- Emphasis on cost (price and volume) is diminishing, with greater attention given to value, measured in terms of both health and productivity.²⁴

Is Managed Care Less Costly and More Cost-Effective?

Managed care and its derivative—managed competition—are being touted as the principal means of controlling health care costs in this country and of avoiding strong and centralized regulation, such as widespread price controls. However, many observers wonder whether it does indeed deliver more cost-effective medical care or even less costly care. “While greater numbers of Americans receive their medical care from managed care organizations,” writes Robert Berenson, “managed care’s track record for restraining costs has not been impressive.”²⁵ In its review of managed care and studies of managed care, the General Accounting Office (GAO) concludes: “Although some employers believe that they are saving money through managed care, other employers contend that apparent savings, which are often attributed to managed care, have been illusory. To date, a definitive evaluation of managed care does not exist because of a lack of clear definition, difficulty in obtaining data, the high cost of conducting an evaluation, and the constantly changing structure of managed care.”²⁶ Consequently, write Moran and Wolfe, “Insurance plan sponsors from both the public and private sectors have been unable to solve the pandemic cost problems that intensified during the 1980’s with the wave of the ‘managed care’ magic wand. This has led to nagging doubts that managed care can contain costs more effectively than could central regulation.”²⁷ Robert Kuttner is less reluctant to draw a conclusion. “Managed care,” he writes, “as currently practiced fails to do what its proponents claim: significantly reduce medical inflation.”²⁸ Arnold Relman agrees: “No managed care plans have been able to slow the current rate of inflation in costs, whatever their effect on the base-line level of expenditures.”²⁹

The difficulty of assessing the impact of managed care on both the cost and cost-effectiveness of health care services stems from several sources. First, managed care does not have a uniform organizational form or a uniform cluster of

practices and procedures. Rather, the term refers to a wide variety of practices aimed at controlling costs and managing patient care and, as discussed earlier, a number of significantly different organizational structures. It may be true that managed care practices in toto fail to have a significant effect on health care costs, but certain practices may be more effective than others. Moreover, certain managed care practices may have the perverse effect of producing one type of cost while raising another. For example, obtaining lower rates for each unit of service in a preferred provider organization may encourage heavier utilization, which may drive up the overall cost of health care.

The second reason for the difficulty in drawing strong conclusions about managed care and its effects is that strongly controlled research studies are few, and revealing systematic data are unavailable. For example, rigorous studies of the cost-effectiveness of the most prevalent form of managed care plan—the PPO—do not exist. The American Association of Preferred Provider Organizations reports that most data on PPO cost savings are anecdotal and cannot be generalized. Moreover, because they negotiate discounts from billed charges, PPO’s typically collect data on prices of services rather than on the total cost of care per enrollee. Similarly, the Group Health Organization of America, which represents prepaid group health plans, argues that tightly controlled prepaid health plans are more cost-effective than indemnity plans but is not able to specify the amount of savings.³⁰

Another characteristic that confounds ready comparison of cost savings across types of health care plans and delivery systems is the fact that these plans often serve different types of populations, which affects the cost of health care demanded and provided. For example, studies commonly report that HMO’s show lower inpatient hospital utilization rates than the national average or for other insurance plans. However, this may be due to the fact that HMO’s typically attract younger and healthier populations, who are less likely to be hospitalized. In addition, concurrent with the growth of managed care in the 1980’s, there was a general decrease in hospitalization rates. This reduction in hospital utilization cannot be attributed solely to more pervasive managed care, however, because many health care services since the early 1980’s have been shifted from hospitals to outpatient settings, such as day surgery centers. Consequently, managed care programs that rely heavily on substituting hospitalization with outpatient care may have less room to accrue savings.³¹

The strongest research studies have been conducted on one subspecies of managed care organization: the HMO. The

Rand Health Insurance Experiment, conducted in 1976–81, randomly assigned individuals either to a staff-model HMO or to several indemnity plans with different cost-sharing requirements. The study found that the HMO had lower per capita costs of care—about 25 percent—than any indemnity plan lacking cost sharing, principally a result of a 40 percent reduction in hospital admissions. Because individuals were assigned at random, the HMO was not able to select healthier and younger clients, and the possibility of bias, which affects many studies of HMO's, was eliminated.³²

Another, more recent study, the Medical Outcome Study, found that patients enrolled in HMO's were hospitalized approximately 45 percent less frequently than patients cared for by physicians who practiced individually or in small, single-specialty groups. The researchers estimated that about a third of this difference was due to the fact that patients enrolled in HMO's were healthier to start with. After taking these differences in patient demographics and severity of illness into account, the study estimated that HMO patients had a nearly 30 percent lower rate of hospitalization but 9 percent *more* physician visits. The authors did not attempt to estimate the net effect of these differences in hospital utilization on the costs of per patient care or premium costs.³³

The GAO rightly warns that the Rand and similar studies of HMO's do not provide sufficient grounds for concluding that managed care as we now know it results in cost savings. Neither the managed care plan the Rand experiment evaluated nor the indemnity plans used for comparison resemble the choices today. As discussed earlier, traditional indemnity plans have incorporated some aspects of managed care. Moreover, the most common form of HMO is not the tightly integrated staff model but the looser and less integrated IPA model.

Indeed, Moran and Wolfe wonder if managed care has been tried at all. They write, "Most Americans receive care that is managed by nothing more than the most rudimentary utilization management techniques."³⁴ Thus, the "managed indemnity" plans do not deliver the "real thing," nor do the loosely associated IPA HMO's, which until recently have "failed to offer the degree of clinical integration offered by closed-panel—and group-model HMO's."³⁵ By this measure, neither the PPO nor the EPO delivers managed care either. In both IPA and indemnification plans, including PPO's, management is done by the insurance company, which focuses on costs. "With few exceptions, the management of these plans is concerned more with cost than with the quality of care."³⁶ Or, as Kuttner puts it, "The general trend seems to be in the direction of the more aggressively entrepreneurial brand of

cost containment, which saves money not by finding the most medically appropriate means of treatment, but simply by limiting patient care. . . . It remains to be seen whether [this] approach will squeeze out costs, or just squeeze out care."³⁷

The Congressional Budget Office estimates that, based on past performance, moving people from fee-for-service medicine into staff- and group-model HMO's would reduce health care spending by 10–15 percent. "If the use of staff-model or group-model HMO's were expanded within the framework of managed competition, the potential savings might be larger because the HMO's would have stronger incentives to achieve savings than they currently do."³⁸ However, whether even tightly controlled HMO's save money, and how, is a matter of some dispute. The ability of the HMO to control costs may be masked by the practice of "shadow pricing"—the reportedly common practice of setting the price of the HMO premium to just below that of the competition.³⁹ Berenson offers another explanation: the true cost-effective capacity of the HMO is not simply masked by the practice of shadow pricing but reflects the fact that most HMO's have paid more attention to the "purchase side" than to the "delivery side."

To a very real extent, financial success in managed care has been too easy and has not required reforming the way health care is actually delivered. If it is possible to beat the traditional insurance competition through provider discounts and boilerplate utilization review, why borrow trouble by managing the care of physicians who did not want to be involved in the first place? . . . In the face of spiraling premium increases, employers now appear to be more willing to accept more decisive actions on the part of their managed care organizations. Unfortunately, under increased cost containment pressure, managed care organizations often simply tighten their regulatory control—increase patient cost sharing, make tougher eligibility decisions, deny more patient hospital days, limit fee schedule increases, or impose increased withholding on payments to physicians.

In short, as the marketplace demands more cost savings from managed care, many managed care organizations' reflexive actions have been to proceed with the kind of regulatory controls that government should be able to administer more efficiently.⁴⁰

There is also concern that savings resulting from half-step reorganization are offset substantially by higher costs of administering managed care programs.

It runs against common sense to suggest that the tighter management of health service delivery organizations cannot result in lower expenditures for health care. "While there is nothing sacrosanct about HMO's," write Greifinger and Bluestone, "they do provide the best example of successful cost containment without sacrifice of medical quality."⁴¹ Cost containment is likely to be increased by the following characteristics:

- The internalization of hard choices regarding utilization and costs to the clinic and hospital, rather than using external, for-profit reviewers. Well-run HMO's do this, as do most universal health systems, in which hospitals are given annual overall "global" budgets or targets and populations to care for and are then told to deliver the best possible medicine within those constraints.⁴²
- Cost containment is more likely when a larger proportion of the components of the health delivery system are brought under the control of a single organization.
- Cost containment is likely to be more successful when health care providers themselves are at some financial risk for inefficient delivery of service.
- Cost containment also may be more effective to the extent that patient care is organized and supervised more tightly. Thus, the group-model HMO's are probably more cost-effective than IPA-model HMO's, which are more loosely structured.⁴³

Some observers, typically physicians, also argue that physician leadership is essential. "To be cost-effective, care must certainly be managed, but the responsibility for management is best placed in the hands of doctors and their patients."⁴⁴ These observers believe that management by insurance companies will strengthen the bias for cost control while sacrificing quality.

Constraining physicians in these organizations to be cost-effective in their practice of medicine is probably facilitated by internal utilization control techniques, data systems for developing information about practice patterns, and organized peer review, which enable physicians to educate one another and to instill and refine cost-effective practices. Increasing the use of day hospitalization and intensive outpatient treatment as alternatives to hospitalization wherever appropriate will also reduce costs.

In the free community, the reorganization of health care delivery systems into tightly integrated HMO models may not, in and of itself, reduce medical inflation at the aggregate, or national, level. As long as a pool of uninsured persons continues to exist, organizations serving insured persons will be under pressure to subsidize their care. Moreover, more efficient delivery systems will not change the fact that our national population is getting older and sicker and that the overall health care system has numerous missing links. "Managed care, by itself, can't make up for those gaps until the overall system insures everybody," writes Kuttner. "As a result, the system often treats patients in the most expensive venues—emergency rooms and psychiatric hospitals—because nobody is willing to pay for less expensive settings."⁴⁵

Will Conditions in American Prisons Support Cost-Effective Managed Health Care?

These observations suggest that prisons may offer advantageous conditions for developing cost-effective managed care delivery systems, but that other characteristics may work against this. Conditions favoring cost-efficiency include:

- *Global budgets.* Health care divisions within State prison systems are typically given budgets within which to operate. The existence of these fixed budgets in the face of strong demand for services encourages decisions designed to allocate health care resources efficiently.
- *Universal coverage and mandatory enrollment.* Whereas the provision of health care in the larger community is fragmented by the existence of competing insurance plans and uninsured persons, all prisoners are "enrolled" in a single organization, and enrollment is mandatory.
- *Limited patient choice.* In the free community, competition for enrollees encourages health care plans to enrich their benefit packages and to adopt other enticements—approaches that work against cost-effective delivery. Because prisoners have no option but to seek care through the prison's health care system, counterproductive tendencies associated with marketing are minimized.
- *Ability to regulate the utilization of services.* Because prisoners lack the ability to consume all but the least

expensive health services without the consent of prison officials, prison administrators have at least the potential to regulate prisoners' utilization of services very tightly. The ability to accomplish this depends in large part on the prison administration's success in controlling physicians' clinical decisions.

- *Relatively fixed patient population.* The existence of a relatively stable patient population (over the course of a year, that is) offers the opportunity to negotiate contracts with private physicians or firms who are willing to serve patients at reduced cost in return for the agreement to funnel all patients to them.
- *Selective contracting.* Because most prison systems do not provide many types of health care services directly (primarily specialty care), they are obliged to purchase it from outside providers. This offers the opportunity to contract selectively with high-quality, cost-effective providers—essentially a network of preferred providers seeking to give cost-effective care.

Conditions that work against the development of cost-effective managed care programs include:

- *Inability to bring most elements of the health care delivery system under direct organizational control.* Prisons are dependent on outside providers, which may not be in plentiful supply. Prison systems may also be required to utilize other public facilities, such as public hospitals, the use of which may be "free" but may create other inefficiencies.
- *Inability to employ physicians directly.* Because of submarket rates and insufficient volume, the efficiencies gained in the free community by employing physicians as salaried staff often are less available in prison systems.
- *Difficulties in managing global budgets.* Capitating health care costs may be difficult when responsibility for prison health care is fragmented across organizations, individuals, and several outside providers. One solution to this, as discussed in chapter 5, is to contract with a private health care firm to provide comprehensive care for a fixed per capita cost.
- *Managers not at risk.* Prison administrators responsible for delivering health care are salaried employees whose salaries are protected and not dependent on the success or failure of meeting cost targets. Lacking the ability to

profit directly from instituting cost-containment strategies, managerial incentives may be weak. One way of compensating for the absence of at-risk management is to contract with private providers for comprehensive health care and to write a contract that puts these managers at financial risk for cost-inefficient care.

- *Absence of a competitive market of providers in rural areas or small towns.* Managed care strategies work better when there exists sufficient competition among providers. Kronick and his colleagues estimate that a population of 1.2 million is needed to support three fully independent staff-model HMO's. A population of 360,000 could support three plans that independently provided most acute-care hospital services, but these plans would need to share hospital facilities and contract for tertiary services. A smaller population of 180,000 could support three plans that provided primary care and many basic specialty services but would have to share inpatient cardiology and urology services. They conclude that reform of the U.S. health care system through the expansion of managed competition is feasible only in medium-sized or large metropolitan areas. In rural areas, where most prisons are located, alternative forms of organization and regulation of health care providers are needed to improve cost-efficiency and quality.⁴⁶ When prisons are dependent on a few providers, they have little or no leverage in negotiating advantageous prices.
- *Security constraints.* Whereas health care providers in noncorrectional settings can be single-minded in their efforts to deliver cost-effective health care, health care in prison systems is constrained powerfully by a more important objective: maintaining security. Meeting this latter objective sometimes requires sacrificing cost-effectiveness of health care services. For example, prisoners may be left in hospitals for longer stays for security rather than health reasons.
- *Unpredictable morbidity.* The future rates of the growth of AIDS and tuberculosis are difficult to predict. To the extent that prisoners are more likely to come from populations that are susceptible to these diseases (for example, drug users), their impact on prison health care costs becomes harder to predict.
- *Prisoner suspicion and expectations.* Like all citizens, prisoners may have high expectations that advances in science can work miraculous cures. However, they may doubt that the system really wants them to live longer

and suffer less or that it will incur any significant expense in their treatment. Suspicion can result in riots. It can also cause poor compliance with treatments and thus higher long-run expenses for the complications of chronic diseases.

- *Litigious prisoners.* As in the free community, physicians face the threat of lawsuits. Because many prisoners have learned how to file *pro se* lawsuits (or have ready access to "jailhouse lawyers" who have learned), the threat of lawsuits is especially real in correctional facilities. This creates an incentive to practice "defensive" medicine, a practice that is often at war with cost-effectiveness objectives.

In the following two chapters, managed care practices developed to control health care costs in prisons are examined, including methods of lowering the unit cost of services provided directly or purchased, and methods of controlling prisoners' utilization of services. Several of these appear to be successful in restraining health care spending.

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Chapter 3

Containing Costs of Goods and Services

Correctional agencies have employed several approaches to reduce the costs of the discrete building blocks—the various goods and services—required of prison health care systems. This chapter addresses each of them. They include:

- Obtaining advantageous prices for pharmaceutical goods purchased.
- Obtaining advantageous prices for purchased hospital services. Discussed here are different methods of obtaining lower rates for hospitalization. These include:
 - Negotiated discounts, using various arrangements for compensation (for example, cost-based reimbursement, and per discharge, per diem, and per capita payments).
 - Establishing Medicare/Medicaid eligibility for prisoners.
 - Requiring mandatory coverage of eligible prisoners by private insurers.
 - Mandatory statewide price controls.
- Obtaining physicians' services at reduced rates.
- Controlling costs by reviewing bills more closely.
- "Making" the needed services directly with prison employees and/or prison-owned facilities. This includes:
 - Operating hospitals within the prisons in lieu of purchasing services from community-based hospitals.
 - Providing intermediate care to reduce hospitalization costs.
 - Reducing overutilization of hospitals by using chronic care facilities.
 - Providing ancillary services, such as diagnostic procedures.

- Getting services "free" by means of agreements to share capacity with other agencies, such as public hospitals, State university medical schools, correctional agencies in other jurisdictions, and military service branches.
- Hiring physicians, rather than relying on independent contractors paid on a per services basis.

Negotiating Better Prices for Pharmaceuticals

The Federal government's Bureau of Labor Statistics (BLS) estimates that U.S. spending for prescription drugs has grown on average at an annual average rate of 13 percent since 1980, although the estimation methods used probably overstate the actual rate of increase.¹ In particular, the effect of generic drugs on the cost of drug therapy is open to dispute in the BLS methodology. When generics are counted, a case can be made that drug prices have been falling rather than rising.² Whatever the real rate of increase in costs, correctional agencies can certainly gain better control over the cost of drugs, prescribed and over the counter, both by changing prescription practices (discussed in chapter 4) and by adopting strategies to purchase pharmaceutical supplies at lower prices. Greater control over drug costs may become even more necessary if correctional systems adopt managed care strategies and seek to substitute drug-intensive outpatient treatments for hospitalization.³

The U.S. pharmaceutical industry is dominated by a few large firms. Although these firms do not hold a monopoly, they do have a great deal of market power in maintaining prices, which is reinforced by the price-insensitive prescribing practices of physicians, the coverage of prescription drugs by some insurers, and informed consumers. (The long Food and Drug Administration approval process for new drugs also delays competition from foreign manufacturers.) Although prisons may have large inmate populations, State prison systems that try to negotiate prices on their own may

have little success. In recent years, however, institutional purchasers have begun to acquire greater buying power and have won substantial discounts. One way of enhancing purchasing power is to join a buyers' group or consortium. Groups able to place large-volume orders can negotiate advantageous discounts.

For example, Oregon's Department of Corrections issued a request for bids to sell pharmaceutical supplies to the State prison system. No suppliers offered bids. The State's correctional department subsequently joined the Minnesota Multi-state Governmental Cooperative Contracting Group.⁴ This bidding group, organized and operated by the State of Minnesota's Department of Administration, purchases pharmaceutical supplies on behalf of its enrolled members, all agencies of city, county, and State governments. The group is divided into three regions, with one pharmacist and one State purchasing official acting as regional coordinators. As of June 1994, the bid group included agencies from 20 different States, including prison systems in Washington, Oregon, Utah, Colorado, Wisconsin, Nevada, Alaska, Indiana, New Hampshire, Minnesota, Idaho, Kentucky, and Arizona. Member agencies had combined purchases totaling \$70 million annually. The contracting group has achieved "national account status" with most of the major pharmaceutical manufacturers and is given volume discounts as a result.⁵ The group's representatives bid directly to the manufacturers, and all drugs are shipped through contracted regional prime vendors (drug wholesalers). Requests from prisons often have distinctive packaging requirements. Instead of being poured into cans or bottles, which can be converted into weapons, medications are packed in containers resembling juice boxes ("brick packs") or in strip packages.⁶ Whereas other bid groups around the country charge administrative fees ranging from 0.5 to 5 percent of the purchase price, which is charged to the manufacturers, the Minnesota bid group charges a fee of 1.5 percent. This fee is collected from the manufacturers and goes into a revolving fund managed by the State of Minnesota. This covers the cost of computer programs to manage bids, printing and mailing costs, and other costs associated with awards.

The group's ability to get large discounts for proprietary drugs is limited because suppliers hold monopolies on them until their patents expire. Discounts, if they are obtained, are small, generally less than 10 percent of the average wholesale price. For generics, however, the discounts are larger—up to 40 percent.⁷

The Federal Bureau of Prisons enhances its buying power by participating in the Veterans' Administration Prime Vendor program. The Prime Vendor agreement allows government

agencies such as the Bureau of Prisons to purchase pharmaceuticals via a modem directly from a regional wholesaler, with pricing based on the Federal Supply Schedule (FSS). The wholesaler generally delivers within 24 hours, three days per week. This arrangement allows the Bureau of Prisons to carry minimal inventories while taking advantage of extremely low FSS pricing.⁸

In Texas, the Department of Criminal Justice has joined with the State university's medical school hospital to purchase pharmaceutical supplies but negotiated and maintains a separate contract with vendors. The medical school hospital processes payments on behalf of the department. Because the university's medical school is able to pay its bills faster than the corrections department, it gets further discounts. This latter discount may be in the 2.5–3 percent range, but the data needed to measure the size of the discount more precisely are not available.⁹ The department and the medical school are currently examining the potential of having the two contracts negotiated as one, particularly if the total volume would offer opportunities for additional discounts. In addition to the volume and rapid-payment discounts, the State has negotiated a significant reduction in the administrative fees for the prime vendor (from 1.5 percent to 0.5 percent).¹⁰ In Idaho, the central purchasing office of the State contracts with a private vendor, which purchases pharmacy and laboratory supplies in bulk for all State agencies and reportedly gets a cost reduction of approximately 10–20 percent.¹¹

Strategies to change the use of drugs—for example, the development of formularies and widespread substitution of generics for brand-name drugs—can yield substantial savings as well. These methods are discussed in chapter 4, which deals with efforts to control health care utilization.

Reduced Prices for Purchased Hospital Services

There are a number of possible strategies for reducing the cost of hospital services purchased from outside providers, although they are not all equally feasible. The most common is for correctional departments to negotiate discounted rates. The second is to seek a change in either State or Federal law requiring that prisoners be eligible for Medicare and, consistent with State requirements, Medicaid benefits. Third, State legislatures could pass laws prohibiting private health insurance programs from denying eligibility to beneficiaries who are incarcerated but who would otherwise be eligible to receive benefits. Fourth, in the absence of Federal or State legislative action to establish Medicare and Medicaid eligi-

bility for prisoners, States could impose direct price controls on hospital rates charged to prisoners.

Negotiating Discounted Rates with Hospitals

Three of these four strategies require legislative action. The only way correctional administrators can obtain more advantageous prices without enabling legislation is to negotiate discounts or standardized reduced rates with local hospitals or networks of hospitals. In return for such discounts or reduced rates, correctional administrators may agree to give these hospitals all or most of their business, thereby establishing, in effect, "preferred provider" relationships. In markets where preferred provider networks already exist, prison administrators may be able to contract with network representatives, obtaining agreements with a large number of hospitals in a single transaction. In 1992 there were 2,578 preferred provider networks operating in the United States, and some States—California, Texas, and Florida—had more than 90 networks.¹² Realistically, the most advantageous rate that can be negotiated is that given to Medicaid patients. The alternative, for hospitals unwilling to accept such low rates, is to negotiate higher per procedure rates—expressed, perhaps, as a percentage increase over the Medicaid rate—or a specified discount off the usual and customary charge, or caps on fees.

Getting preferred provider rates may produce substantial savings. A Federal Bureau of Prisons study compared the actual costs of community-based health care—inpatient, outpatient, and other services, including hospital and physician costs—delivered to inmates at three prisons with the prices that would have been charged if a California-based preferred provider organization had been used instead and had charged the Bureau the prices it charged other members of its plan. Bureau analysts estimated that savings in the three prisons would have ranged from 25 percent to 33 percent, with an average of 28 percent across all three.¹³

In the absence of laws requiring hospitals to accept reduced rates for prisoners, the willingness of hospitals to accept Medicaid rates depends on market forces or altruism. That is, if there exist a number of hospitals able to serve a prison, corrections administrators may be able to obtain advantageous prices from one in return for a promise to channel all patients to them instead of to their competitors. However, if few hospitals are near the prisons, correctional departments will have little leverage, if any, to negotiate Medicare/Medicaid rates. In conditions where one supplier exists, purchasers may have to accept the customary rates on a take-it-or-leave-it basis. To be sure, hospitals holding such local

monopolies may not take a hard line but may choose to provide reduced rates or discounts for reasons other than economic ones (for example, the hospital's directors may desire to be good neighbors).

Forms of Compensation and Cost Control Incentives

How departments agree to compensate hospitals for their services has significant implications for cost-containment efforts. The incentives to control costs, provide services, or seek efficiency improvements vary depending on whether reimbursement is cost-based or paid on a per discharge (case), per procedure, per diem, or per capita basis.

Cost-based Compensation. Under a cost-based reimbursement agreement, including cost-plus-fee arrangements, few incentives exist to encourage hospitals to be cost-efficient. Their financial risks are minimized, as all additional costs are passed on to the consumer. Indeed, cost-based reimbursement systems create incentives to deliver *more* services to patients. Ellis and McGuire observe that "increasing the marginal reimbursement to providers will increase the desired levels of services supplied, since additional benefits to the patient (which also provides utility to the provider) can be purchased at lower cost."¹⁹ Under cost-based reimbursement systems, providers also can change accounting assumptions and recompute their costs, which may result in price inflation. The burden of cost containment in such a system falls on the payer (not the provider), and payers resort to utilization management and review procedures established to counter the incentives encouraging increased (and even unnecessary) use. Utilization management procedures offer no protection against inefficiency or increases in unit costs, however.

Per discharge or procedure payments. To eliminate the incentive to overuse hospital beds that is inherent in cost-based reimbursement systems, Congress changed Medicare reimbursement procedures to a per procedure basis in 1984.²⁰ Before that, reimbursement allowances were permitted for returns on invested capital if the service was provided by a for-profit facility. This policy provided large amounts of public funds to private for-profit and not-for-profit hospitals, with little monitoring of price-making procedures. Hospital chains acquired new hospitals and revalued their assets, and then raised their costs charged to the government. Congress decided to make this practice of revaluing assets illegal and, in fiscal year 1984, created the Medicare prospective payment system, which fixed payment rates by type of procedure, categorized according to the diagnosis related group

Preferred Provider Networks in Georgia, North Carolina, and Florida

Georgia's Department of Corrections negotiated contracts and preferred provider agreements with hospitals, agreeing to pay either a fixed per diem rate or to obtain a percentage discount off the usual and customary charges. The per diem rate differed from one hospital to another, ranging from \$500 to \$1,500. The department's ability to negotiate advantageous per diem rates depended on how much competition existed among hospitals in the community, how cash poor the hospitals were, and the case mix they serviced. Georgia abandoned this method of purchasing community-based services separately in the fall of 1994, when it switched to a contract for comprehensive managed care, under which the provider is compensated on a per capita basis.¹

North Carolina's Department of Correction also has developed a large network of preferred provider hospitals. During the 1980's, it began to negotiate special rates with hospitals. At present, such agreements exist with 32 hospitals in the State, although 3 get most of the department's referrals. The department seeks to negotiate per diem rates, the most advantageous being the Medicaid rate for each diagnostic related group (DRG). A second-best agreement from the department's point of view is one in which the hospital gets some specified multiple of the Medicaid rate—for example, 120 percent of the Medicaid DRG rate. The least advantageous to the department is a specified discount off the usual and customary rate—10 percent off, for example. Coupled with the practice of directing prisoners to hospitals that have agreed to charge the department the lowest rates, these discounted rates have produced large savings. During fiscal year 1993, for example, the department was billed \$6.1 million for inpatient care in community hospitals. The average per diem billed the department was \$1,398.95. However, because of existing agreements to pay at a discount, the department's average per diem was \$1,025.68—a 26.6 percent discount. This savings totaled \$1.6 million. If the department had been able to obtain Medicaid rates from all hospitals, paid charges would have been even lower, reaping savings in excess of \$2 million.²

The impacts of these discounts in particular cases are dramatic. One hospital charges the department \$990 a day, rather than its usual and customary charge of \$1,500. Consequently, all prisoners requiring open heart surgery are directed there. At another hospital, one case involving renal failure would have resulted in charges to the department of \$162,000 if usual and customary rates were in effect. But because of an agreed-upon per diem discount, the department paid \$72,000. Similarly, a cardiac case that resulted in a \$100,000 bill, based on usual and customary charges, actually cost only \$10,000.

With such deep discounts at some hospitals, the department's central office works hard to ensure that these hospitals are used. For example, the institutional physician scheduled one open-heart surgery case to go to a nearby hospital. The department's utilization review (UR) unit was called for prior approval, and the physician was told that the hospital he had selected was not a preferred provider for the department and did not offer a discounted rate. The UR unit then redirected the patient to a hospital that was a preferred provider, located thirty minutes away. This resulted in a saving of \$30,000 for that one procedure. This illustrates the importance of utilization management procedures. If effective procedures do not exist for directing patients to providers that offer reduced rates, physicians and/or prison security staff are likely to select hospitals based on their proximity alone, either because of convenience or because of the costs and risks associated with transferring the prisoner over a longer distance. These anecdotes also indicate the importance of selecting physicians who are sensitive to costs and training them to be so.

To reduce spending for hospitalization, the Florida Department of Corrections has created a network of preferred provider hospitals, with which the department has negotiated reduced rates. When considering whether to include a hospital in its network, the department evaluates a number of factors, including:

- Number of operating beds.
- Physical location.

- *Basic services provided.*
 - Degree of medical technology available to patients (such as lab, surgery, ICU, diagnostics).
 - Range and scope, basic and specialized such as burn, cardiac surgery, and so on.
- *Licensed, accredited, certified.*
 - Licensed by the State.
 - JACHO accredited.
 - Lab certified and radiology certified.
- *Utilization information available.*
 - Number of admissions—overall and category.
 - Number of patient days.
 - Occupancy rates.
 - Average length of stay.
 - Mortality rates.
 - Number of surgical procedures by inpatient or outpatient status and by specialty (such as cardiac bypass, and so on).
 - ER visits.
- *Utilization and discharge program.³*

In advance of negotiating rates, the department acquires financial data from the hospital and data supplied to the Health Care Cost Containment Board, which reveals the hospital's actual costs per day, earned profit, and similar information from prior years. The department also develops estimates of the numbers and types of patients that it will be sending to the hospital, an exercise aided by the department's management information system. The department prefers to obtain per diem rates for hospital inpatient services whenever possible. This is done because it places the hospital at risk, since it is receiving a fixed payment per day. As discussed below, per diem arrangements create an incentive for the hospital to extend the length of stay so that it can increase revenues, which places an extra demand on the hospital's and the department's utilization review procedures. The department has a well-developed continued-stay review procedure, which it relies on to control the use of the service. (See chapter 4 for a discussion of such procedures.) Contracts negotiated with hospitals specify the hospitals' obligations regarding utilization management procedures. As of March 1994, the department had per diem rates at nine hospitals. However, the department currently uses five regional hospitals to do most of the work.⁴

Not all hospitals agree to a per diem compensation. Some prefer a discounted rate for services. Consequently, the department has a number of discount-for-service contracts. In some cases, a hospital will offer a package price for particular services, such as coronary-artery bypass surgery, which the department is willing to accept because it saves money over the per diem rate that it would be charged.

To take advantage of this network of discounted providers, the department grades the medical condition of all inmates to identify chronically ill prisoners or inmates suffering from health problems who are likely to require significant care. Prisoners classified as having chronic illnesses or likely to need significant care are consolidated in regions near the preferred provider hospitals.

These cost-containment strategies have reaped significant benefits. In 1992-93, the average per diem rate in hospitals in the department's preferred provider network was \$981, compared with a statewide hospital average charge of \$1,851, excluding newborns. (This does not include any physicians' fees or special charges.) The full range of discounts and impacts for fiscal year 1992-93 was estimated to produce a cost avoidance of \$6.5 million for the year. Between 1991 and 1992-93, the department of corrections had reduced hospital expenditures from \$11.9 million to \$11.3 million, despite an increase in the average daily population.⁵ This was reportedly due to a systematic reduction in the hospital use rate and to reliance on contract hospitals and utilization review procedures.

(DRG) into which the patient was classified at discharge. The theory was that by manipulating payment incentives to hospitals, payers—in this case, the Federal government—could reduce both the level and the growth of costs. According to Judith Lave, who helped design the prospective payment system, “The per case system should promote efficiency in the production of health care services and in the development and adoption of cost-reducing technologies.”²¹ This spur to efficiency was thought to result from disconnecting hospital revenues for a patient from the resources actually expended to treat that patient. However, by paying a fixed reimbursement for any procedure, an incentive is created to maximize profits by limiting services to an acceptable minimum.²² This may result in underserving patients.

Medicare’s prospective payment system is designed to cover the full cost of the average hospital for the average case. Hospitals can profit when they achieve lower than average costs or admit patients who are not as sick as the average patient. When the opposite occurs, hospitals are reluctant to accept the above-average case, although some adjustments are allowed for “outliers” with unusually high expenses or long stays. Ellis and McGuire consequently argue for a hybrid compensation system, in which estimated costs are included in the calculation of a per procedure reimbursement. This is called a prospective system with hospital-specific rates. Such a system reduces risks to providers and is more likely to be perceived as fair by them.²³ The trend, however, is toward reliance on preferred provider networks of hospitals and away from reimbursement systems based on procedures. Per discharge rates do not mesh well with PPO’s. Consequently, only 9 percent of all hospitals in preferred provider networks were paid using DRG-based rates in 1992. Discounted charges were the most common form of compensation.²⁴

Another hybrid is seen in the arrangement between the Utah Department of Corrections and the University of Utah Medical Center to provide the State’s prisoners with hospital services. This arrangement combines cost-based reimbursement—at a discount—with a global budget to minimize unnecessary utilization. The department pays the university \$200,000 a year to contribute toward its overhead expenses and agrees to pay 63 percent of all usual and customary charges. To protect the medical center against the cost of catastrophic illnesses, the department agrees to cap full liability at \$50,000 per year per inmate and agrees to share 50-50 all costs in excess of \$50,000. An incentive for the medical center and the department to avoid otherwise unnecessary utilization is created by establishing a total amount to be spent by the department each year—essentially a global

budget. If the department is billed for less than this amount because fewer services have been provided than anticipated, the department and the medical center share the savings evenly. If the cost exceeds the contracted amount, the university pays for all the above-budget costs, except for expenditures on catastrophic illness, which are shared according to the formula described above.²⁵

Per diem payments. A third method of compensating hospitals is to base payments on negotiated per diem rates. However, by pinning the hospital’s revenues on the number of days of service, per diem arrangements may encourage hospitals to hold patients longer. An increase in the length of stay would thereby offset some or all of the savings that may have been anticipated when the per diem rate was established. This suggests that per diem compensation arrangements should be coupled with strong controls on utilization, such as hospital precertification programs and continued stay review (discussed in chapter 4).

Per capita compensation. Compensating hospitals on a per capita basis gives correctional departments the greatest certainty, especially if there is no cap on the provider’s liability for high-cost cases. These compensation arrangements put the provider at the greatest financial risk and offer the greatest incentives for cost control. Whether costs are, in fact, controlled also depends on whether risk factors are within the scope of control of the provider; in capitation the provider is “at risk” for how often hospitalization is needed. This depends, in part, on the underlying epidemiologic risks, which are certainly not controllable by hospitals.

As in the case of per procedure payment schemes, per capita payment procedures reward cost-cutting practices. However, like the per procedure payment scheme, an incentive is created to limit services because profits can thereby be maximized. To ensure that services are adequate, the department must establish procedures for monitoring the quality of care. In reality, however, most hospitals will be unwilling to accept per capita reimbursement unless the reimbursements are at a very high level. Health care providers who are most willing to gamble on making money in a per capita payment system will be those that have the broadest responsibility for patient care, both inpatient and outpatient. The most significant opportunities available to these providers for reducing costs are to substitute outpatient for inpatient treatment. Unless they have substantial control over the amount and kind of treatment that will be given to prisoners, hospital administrators are likely to view per capita arrangements as all risk and little opportunity for gain. However, as described

in chapter 5, health care contractors do exist who are willing to take on the risks.

In Texas, the State is continuing to move toward full capitation of its contracts for prisoner health care, with its university partners gaining confidence as more knowledge is gained of factors influencing off-site costs. The medical school at the University of Texas has contracted for actuarial data to be developed and to provide a clearer picture of the potential risks. As more history and actuarial data are developed, providers will become more comfortable with capitated contracts.

Establishing Medicaid/ Medicare Eligibility for Prisoners

An alternative to negotiating new rates or discounts is to have hospitals accept Medicaid payment rates for all prisoners. Although the National Commission on Correctional Health Care recommends that Congress modify Federal law governing eligibility for Medicaid and Medicare to include prisoners, States could enact laws that effectively set the same rates. This has been done in Tennessee, where State law requires that prisons pay for hospitalization at indigent rates, which is equivalent to Medicare rates. All that a change in Federal law would do would be to require the Federal government to share costs with the States, as is done with Medicaid. Any proposal to expand eligibility for Federal Medicaid or Medicare entitlements to the more than one million prisoners in custody is not likely to get an attentive hearing at the Federal government, especially when the current Medicaid and Medicare programs have shown such steep increases in spending in recent years. Moreover, most—if not all—of the recent bills proposing a reformed national health care system do not include prisoners among those designated to receive benefits, even under the definition of “universal coverage.”

Hospitals may be reluctant to accept Medicaid or Medicare rates because these rates may not cover the hospitals' full costs of care. Indeed, the typical Medicaid hospital per diem payment is about 80 percent of the average per diem cost for Medicaid patients.²⁷ Despite this shortfall, no hospitals in any State with such rates find the rates too low to stop their voluntary participation in the Medicaid programs.

Hospitals often assert that they are able to subsidize these patients by shifting part of the cost to charges billed to private payers. That is, the usual and customary charge billed to private payers is set at a level that will recoup the losses incurred by caring for Medicaid, Medicare, and uninsured

patients and by bad debts. In Tennessee, for example, the indigent rate (equivalent to the Medicaid rate) is about 68 percent of the usual and customary rate charged to private payers.²⁸ The willingness of hospitals to accept Medicaid rates for prisoners therefore depends in large part on whether they have a large enough clientele of private payers to subsidize the cost of treating prisoners.

Although it is obvious that hospitals charge different prices to different payers, Morrisey argues that this is best thought of as charging what the market will bear.²⁹ To shift costs successfully, a hospital must increase its prices to insurers as a result of lower prices received from other payers. In the increasingly competitive U.S. health care market, this is hard to do. Morrisey finds that empirical evidence of cost shifting is surprisingly sparse. There are only four rigorous studies published. Two find limited cost shifting and two do not. Three of these were undertaken in an earlier era before hospitals faced the fixed prices of the Medicare prospective payment system and the rapid growth of managed care. The only recent study examined what happened to Blue Cross payments to hospitals when Medicare adopted prospective payment. Cost shifting would imply that Blue Cross paid more; instead it saved money. This is not evidence of cost shifting.

Morrisey cites other evidence that hospitals cannot successfully shift costs. Instead, hospitals have laid off staff and reduced Medicaid patient loads in the face of restrictions in payment levels. If hospitals could successfully shift costs to other payers, one should not expect to see such downsizing.

The moral of this story for prison officials is that hospitals will not accept patients for whom the reimbursement does not cover at least the marginal cost of care most closely associated with the patient. This does not mean that a prison system must pay the same prices as private insurers of the middle class. A hospital may be willing to accept Medicaid patients because the cost of treating these patients does not exceed the actual Medicaid reimbursement. If prisoners involve more expense than does the typical Medicaid patient (because prisoners are sicker or because security needs impose extra expenses), they will be unwelcome at Medicaid rates.

In Hawaii, the major cost-containment strategy adopted by the Corrections Division of the Department of Public Safety is the use of the Medicaid system for both billing and rate setting.³⁰ Prisoners there are eligible for State-funded Medicaid reimbursement but not for federally funded reimbursement, and contracts for inmate care are administered by the State Medicaid administrator. Accounting is kept separate,

and transfers are made quarterly by the corrections division. In addition to savings incurred by having hospitals accept the Medicaid rate, the State probably gains efficiencies in the use of the State Medicaid billing system for handling claims for prisoner care.

Providers were not compelled by law to accept Medicaid rates but agreed to do so voluntarily. This widespread willingness resulted in part from the conditions created by the State's policy of universal coverage. Under that policy, residents who lack private insurance can receive care paid for by State funds. Consequently, hospitals do not have to carry bad debts or the costs of caring for uninsured patients. This could be interpreted as indicating a situation where hospitals have little need to subsidize patients with higher private payer rates. In this view, the spread between private payer rates and Medicaid rates is therefore narrower, and accepting the Medicaid rate for prisoners does not impose the disadvantage that it does elsewhere.³¹ Alternatively, what the market will bear has been changed by a State subsidy that lowers hospital costs so that Medicaid rates are at least marginally profitable.

Mandatory Coverage by Private Insurers

The National Commission on Correctional Health Care recommends that "State legislatures enact legislation prohibiting health insurance programs from denying eligibility for beneficiaries who are incarcerated but otherwise eligible to receive health insurance benefits."³² If legislatures were to pass such laws, State departments of correction would gain additional sources of revenue. Health care providers would be compensated at whatever rate the insurance plan guarantees its members, and the correctional departments' expenditures for health care would be reduced by the same amount. Such a change in law would create some logistical problems, but these pale in significance beside the more important policy question: Who should cover the cost of prisoner health care?

One question to be faced by those contemplating the change in law is whether insurance companies would be required to continue benefits only for those plan members who gained coverage prior to their incarceration. This would expose the insurance company to fewer financial risks than also requiring them to permit prisoners to enroll as new members. Moreover, the liabilities of the insurance companies will increase if prisoners are unable to avail themselves of providers who agree to accept reduced payments to insured participants, which is likely if prisoners are held in locations distant from metropolitan areas. Higher risks and larger liabilities

will ultimately lead to a higher premium charged to all plan participants, including those who pay a large proportion of private insurance premiums—private businesses. Increasing the cost of health insurance to businesses probably has negative economic effects. The costs of labor increase, and businesses' competitiveness decreases proportionally, at least on the international market. A fairer solution is to spread the cost of prisoners' health care over the entire society, especially because it is the entire public, and not just U.S. businesses, that benefits from imprisoning criminals. To the extent that prisons are supported by broad-based tax revenues from income, property, and sales taxes, this is accomplished.

Mandatory Statewide Price Controls

Failing all else, correctional departments could seek to obtain reduced rates from hospitals by means of mandatory price controls. Prison administrators have some experience with such controls. Beginning in the 1970's, many States established some form of rate-setting programs, and by 1980 the majority of States (27) had some form of rate-setting programs in effect.³³ However, most of these programs were voluntary; hospitals could elect to participate. Only eight States had programs that reviewed rates and required compliance with rates or budgets set by a State rate-setting authority: Connecticut, Illinois, Maryland, Massachusetts, New Jersey, New York, Washington, and Wisconsin. In some States, medical rates were exempt from State rate-setting because they were already fixed. By 1993 only Maryland continued to have in force a mandatory rate-setting program for all payers.

These price controls were established not to provide State governments with reduced costs but to control the growth of hospital spending more generally and to encourage greater equity among payers. Especially in those States where all payers were subject to the imposed rates, opportunities for shifting the costs of caring for uninsured patients (and perhaps Medicare and Medicaid patients) to private health insurers or other private payers were minimized or eliminated. Generally, rates were established initially on a per service or per diem basis, but the opportunity existed to increase the volume of service to compensate for reduced per diem or per service payments. Consequently, most programs moved away from per diem or per service compensation and established limits on aggregate expenditures to discourage these compensatory changes in practice. Researchers found that rate-setting programs that focused on controlling aggregate payments and that established limits on the ability of providers to increase the volume or intensity of treatment

were more effective in restraining overall costs of hospitalization and were more likely to have increased productivity by introducing cost-saving technologies, such as managed care procedures.³⁴ Based on this experience and an analysis of other administered pricing programs—Medicare/Medicaid and price controls established in the Nixon administration's Economic Stabilization Program—Gold and her colleagues conclude that price controls of hospital rates can generate short-term savings, but these can be partly offset by increases in volume or in the intensity of care. The most effective programs have to apply to all payers and impose controls on aggregate payments.³⁵ Because the likelihood that legislators will pass such comprehensive price controls is low (absent national health care reform), correctional administrators cannot hope to find refuge in them. Furthermore, even if controls were politically feasible, they might not work very well for correctional facilities. Price controls are typically evaded by redefining a product or splitting it into segments that obtain more favorable rates. Sellers tend to be more adept at this than buyers.³⁶

Getting Reduced Prices From Physicians

Physicians increasingly are willing to accept payments below their usual and customary levels. For a number of years, many of them accepted reduced payments for treating Medicare and Medicaid patients. More important, the rapid growth of preferred provider networks in the last few years attests to the willingness of increasingly large numbers of physicians to accept reduced payments in return for referrals. In 1992, according to a national survey, simple discounts off fees were becoming less common among physicians participating in preferred provider organizations. The most common method of payment was a fee with a cap (73 percent of all payments that year). Only 14 percent were discounted fees, and 2 percent were packaged prices per episode.³⁷ However, the willingness to accept reductions is not universal and no doubt depends largely on local market conditions. For example, New York City is home to a large number of psychiatrists, and many may be willing to work at deeply discounted rates. In contrast, no such "oversupply" exists in many States, and the prevailing rates for psychiatrists is higher. Especially in rural areas where many prisons are located, physicians are in short supply, and specialists even more so.

The Texas Department of Criminal Justice (TDCJ) has been successful in getting physicians to accept reduced fees. Physicians agree to accept the lesser of the billed charge or the TDCJ maximum allowable fee. This latter computed fee

is determined by the use of the Medicare relative value unit (RVU) using the State's specific conversion factors.³⁸ Now that Medicare has begun paying all physicians on a relative value scale (RVS) basis, it is possible for States to create a fee schedule for physicians using those relative weights and a State-specific conversion factor (a base price per RVU).

One strategy that is becoming increasingly possible for corrections administrators is to make an agreement with existing preferred provider networks, thereby obtaining reduced prices from all participating physicians. This is more likely in large health care markets than in smaller, more rural ones. In the absence of negotiating an agreement with existing PPO's, departments in many States have been successful in negotiating individual agreements with physicians to work for reduced payments. Such reductions, especially for specialists, can result in significant savings, especially if utilization management procedures are actively employed to manage prisoners' use of these physicians.

"Making" Rather Than Buying Hospital Services

An alternative to purchasing hospitalization services from a community hospital is to create correctional hospitals—either within existing prisons or constructed anew as prisons. Although the prevailing wisdom during the 1980's favored the privatization of government services rather than the reverse, providing hospital services directly may, under certain circumstances, be more cost-effective in prison systems than purchasing services from community hospitals. In-prison hospitals are relatively rare in this country, but with increasingly large numbers of prisoners in State and Federal systems, they may become more economical.

The choice should not be seen as between purchasing services in community hospitals and duplicating such hospitals within prison walls. Many of the features of community hospitals are not needed in prisons—or are not needed often enough to justify the investment in creating them. A narrower range of services may suffice. Looking at some in-prison hospitals that currently exist, one might question whether these are "real hospitals". Resolving this semantic issue is unnecessary. At this moment, the institutions we have called hospitals in the free community are undergoing a far-reaching transformation. Determining what constitutes a hospital is consequently becoming more difficult. Therefore, the issue is whether to create the specific capacity in-house that prison systems otherwise purchase from community hospitals. Lacking a better word for these in-house facilities, they are called hospitals here.

Hospitals in the Federal Bureau of Prisons

The Federal Bureau of Prisons has the most extensive experience with in-prison hospitals. At present, its nationwide health care delivery system includes six prisons with hospitals—called referral centers in the Bureau. Under a cooperative agreement with the U.S. Public Health Service (PHS), PHS physicians provide much of the service in each center. The medical director of the Health Services Division is also 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.

Inmates from any prison in the system can be transferred to a referral center for hospitalization. Alternatively, they may be sent to neighboring private or public hospitals in the community. The decision whether to transport an inmate from one of the Bureau's facilities to a referral center or to a nearby community hospital is based on a number of considerations. These include the urgency of the treatment needed, the expected cost of obtaining the service in the nearby hospital, and the security risk that the prisoner poses. Local community hospitals are 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, even for inexpensive treatments. If the health services administrator determines that transfer to a referral center is preferable or necessary, a "medical designator" based in Washington, D.C., determines to which referral center the inmate will be transported.

In some instances, prisoners transferred to the referral centers for treatment are sent outside, to community hospitals close to the referral center, and then are returned to the referral center for convalescence. This is done if the referral center does not have the capability for the type of treatment required.

The oldest referral center is the U.S. Medical Center for Federal Prisoners in Springfield, Missouri, built in 1933 and designed to house 1,163 male inmates. This number includes approximately 750 medical, surgical, and psychiatric patients of all security levels (that is, minimum-security through maximum-security prisoners). The remaining inmates are riot patients but prisoners in the general population; they constitute a "work cadre" to support the operations of the facility. The center is staffed by nearly 700 employees, including 279 authorized health care positions. The hospital, like all of the referral centers, has been accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

Springfield provides a variety of services directly, including surgery, generally by physicians employed by the Federal government, but it also relies on the services of consulting physicians for specialist and subspecialist services and on three local hospitals for the most complicated surgeries. The referral center does not have sufficient equipment or staffing of operating rooms or laboratories to support complicated and risky surgeries.

In 1984 the Bureau acquired a former State mental hospital in Rochester, Minnesota, and opened it as the Federal Medical Center (FMC), which operates as a prison holding 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 ones. It serves mainly low- to middle-security male inmates, although a few females have been admitted. During fiscal year 1988, the Rochester FMC housed medical and surgical patients in 120 beds and mental health patients in an additional 120 beds. In addition, there is a 180-bed treatment unit for inmates with chemical dependency problems. The facility 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. Such surgeries are performed in the local hospitals.

The Bureau's major medical facility for women is located on the site of the Federal Correctional Institution in Lexington, Kentucky. Once a hospital run by the U.S. Public Health Service and the National Institutes

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 1,950 female prisoners. The referral center has a 22-bed acute-care unit with a recovery and stabilization room; two extended care units with 176 and 316 beds for chronic-care patients; and a mental health unit with 34 acute-care beds and a 60-bed transitional-care unit. It also has 34 obstetric beds.³⁹ The referral center at Lexington does not provide complicated in-house surgery and is not staffed with round-the-clock physicians, lab technicians, blood bank personnel, and other professionals who would be needed for such procedures. Consequently, women are taken to local hospitals for birthing their babies and for all but the most routine "lumps and bumps" surgery. The Bureau plans to convert Lexington to a men's prison and to open the Federal Medical Center at Carswell, in Fort Worth, Texas. Carswell, obtained from the U.S. Air Force after Fort Carswell was closed, is a modern, 300-bed facility.

The Bureau also operates a 180-bed psychiatric hospital at the Federal Correctional Institution at Butner, North Carolina. The hospital, which is located on the grounds of a larger prison, provides treatment for inmates who are overtly psychotic or suicidal, or prisoners 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 are transferred to other referral centers.

In addition to these four major medical centers, the Bureau operates two other, smaller facilities at Terminal Island, California, and in Fort Worth, Texas. 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. This medical facility is located at a prison holding approximately 850 general-population inmates. In Fort Worth, Texas, a former U.S. PHS hospital was opened in 1971 as the Federal Correctional Institution at Fort Worth. The facility has 660 beds, mostly for the general population. This facility has a long-term care unit for chronic patients in the Federal prisons.

The average daily costs of inpatient treatment at the four referral centers are far lower than the cost of hospitalization in the free community. During fiscal year 1988, for example, the average per diem costs ranged between \$65 and \$248, compared with \$523 during the same period in hospitals in the free community.⁴⁰ The Bureau was able to obtain these lower per diem costs by paying wages lower than those equivalent community hospitals pay. Moreover, the Bureau could draw upon a small pool of obligated scholars—PHS physicians working off their school debts at low salaries. At this time, the Federal medical centers were understaffed (that is, a number of authorized positions were vacant), which reduced the average per diem costs. The cost of nonclinical services—such as supplies, food services, housekeeping, and so on—were low because referral centers take advantage of nearly-free inmate labor and a variety of other services shared by the prisons within which they are embedded.

On a per admission basis, however, costs far exceed those typical of hospitals in the free community. This results largely from the increased lengths of stay because of correctional constraints. For example, during 1988, the average cost per admission at the four major referral centers ranged between \$9,291 and \$15,236, compared with the national average of \$3,733 in community hospitals that year. These high costs reflect the fact that stays in the referral centers are very long, averaging between 49 and 129 days, compared with the national average of 7.2 days in community hospitals.⁴¹ Unlike most patients in community hospitals, prisoners generally need to complete their convalescence before returning to the general population. Substantial staff shortages also led to longer-than-necessary stays during this period and created bottlenecks at various points in patient processing. Moreover, because the Bureau is a national agency, transporting prisoners is more complicated than in State prison systems. To keep costs down, prisoners at the referral centers are required to wait until enough of them are ready to be transported across long distances to their home prisons. This, however, needs to be considered in the context that during an admission, patients move from acute to convalescent to step-down units with lower staff intensity. This is not factored separately in the analysis of per diem costs. (Furthermore, the total cost needs to be offset by what would have been the per diem cost of incarceration if the individual were not in a medical referral center.)

Indicative of the savings produced by "making" rather than "buying" hospital services are the average daily expenditures for hospitalizing prisoners in referral centers and in hospitals near the referral centers. Table 3.1 compares per diem expenditures during fiscal year 1988 at each of the four major referral centers. These ranged from \$64.50 to \$247.70. This amount included not only direct expenditures by the Bureau for providing health care but also payments to physicians brought from outside the facility for consultation or other services. The cost of treating prisoners not at the referral center but in nearby hospitals averaged between \$1,352 and \$2,179 per day. The costs were higher in nearby hospitals in part because the referral centers sent them more complex cases. Outside hospitalization costs were higher also because the Bureau had to transport prisoners under guard. Maximum-security inmates also required several officers on guard around the clock in the hospital. Lower-security prisoners are guarded somewhat less intensively but must still have round-the-clock coverage. Correctional officers detailed to these duties generally work entirely on overtime, drawing a high hourly wage. Some referral centers use contract security officers for low-security inmates. Because of a lack of standardization in reporting correctional officers' costs associated with inpatient stays in community hospitals, it is difficult to determine precisely the daily costs of outside hospitalization during that period.

Estimates of expenditures for medical labor, security, and all other hospital costs associated with hospitalization and community facilities are shown in Table 3.2. These data give some indication of the savings that can be obtained by directly providing inpatient hospital services in prisons rather than purchasing them from community-based facilities. The ability to do this economically depends, however, on having a sufficiently large number of prisoner-patients to justify the creation of capital-intensive medical facilities within prisons. For example, the patient population at the Lexington referral center is too small to support a full-time orthopedist, cardiologist, urologist, or radiologist, among others. Lacking sufficient demand for these services, the Bureau purchases services from consulting specialist physicians in the local community.

At the time these cost figures were computed, the Bureau had a special advantage that State departments of correction do not have: a pool of "obligated scholars," PHS physicians whose medical schooling had been paid for by the PHS and who were completing a service obligation at the Federal medical centers. (As of August 1994, there were 10 such physicians in the Federal prison system.) Without this inexpensive resource, State departments of correction are required either to hire staff physicians at much higher salaries or to make extensive use of consultant physicians brought in from private practices outside. The per diem costs of hospitals operated by correctional departments are generally higher as a consequence. This changes the economics of the make/buy decision in State correctional departments.

Table 3.1
Estimated Average Daily Expenditure
for Hospitalization in Federal Bureau of Prisons Referral Centers
and in Nearby Community Hospitals, FY 1988

	<u>Referral Centers</u>	<u>Nearby Hospitals</u>
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. Referral centers do include costs of nonstaff consultant physicians and other consultant staff.

Source: Douglas McDonald, *Privatize Federal Prison Hospitals? A Feasibility Study* (Cambridge, Mass.: Abt Associates Inc., 1990). Computed from various data provided by the Bureau of Prisons in BPMed12 reports.

Table 3.2

**Average Daily Cost of Hospitalization in Community Hospitals
Near Federal Bureau of Prisons Referral Centers,
by Type of Expense, FY 1988**

	<u>Medical</u>	<u>Hospital</u>	<u>Guarding</u>	<u>Total Average Daily Cost</u>
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

Note: Medical and hospital charges are taken directly from Bureau reports. Because of apparent inconsistencies in the reporting of correctional officer costs ("guarding"), it is assumed that figures reported by Springfield approximate the actual cost in all referral centers, and that figure is applied to all referral centers.

Source: Douglas McDonald, *Privatize Federal Prison Hospitals? A Feasibility Study* (Cambridge, Mass.: Abt Associates Inc., 1990). Computed from various data provided by the Bureau of Prisons in BP MED3 and BP MED12 reports.

*Providing Intermediate Care
to Reduce Hospitalization Costs*

A cost-containment approach halfway between the exclusive use of community-based hospitals and the direct provision of surgical services in correctional hospitals is the use of intermediate-care facilities in prison settings to reduce the time spent in community hospitals. For example, the State of Florida operates an intermediate-level facility to provide secondary care or convalescence upon return from community hospitals.⁴⁸ Nevada's Department of Prisons also provides convalescence beds in its regional medical facility at Carson City.⁴⁹ Utah provides both post- and preoperative services in its 18-bed infirmary in the South Point Complex at Draper.⁵⁰

To ensure that bed days in local community hospitals are reduced, utilization-management procedures—especially continued-stay reviews—need to be given high priority. In addition, physicians caring for prisoners in local hospitals need to be acquainted with the prisons' intermediate-care facilities so that they cooperate with the correctional officials charged with utilization management or coordination.⁵¹

*Reducing Overutilization of
Hospitals by Using Chronic-Care Facilities*

Correctional systems that lack the capacity to care for prisoners with chronic illnesses are likely to overutilize acute-

care hospital beds, whether in prisons—as in the case of the Federal Bureau of Prisons—or in the community. Federal Bureau of Prisons officials estimate that about 40 percent of prisoners needing inpatient care will suffer from chronic illness, 36 percent from mental illness, and approximately 20 percent from acute medical conditions.⁵² To care for chronically ill patients, the Bureau is planning to create a substantially larger capacity rather than rely on expensive community hospitals or on hospitals within the prison system that are staffed for acute care. In 1993 the Bureau built a chronic-care facility with 85 beds in Fort Worth, Texas, and will convert the Lexington referral center to a long-term chronic-care facility.⁵³ Like other intermediate-care facilities, the cost-effective utilization of these resources depends on the number of appropriate patients in the system and the use of utilization-management procedures to match services to their needs.

Texas is also planning such an approach. By constructing a regional medical facility near the existing Texas Department of Criminal Justice/University of Texas Medical Branch prison hospital, the utilization of the hospital space can be better managed through a system of "step-down care" allowing chronic care and convalescence at the regional facility.⁵⁴

Creating In-House Diagnostic Services

If the volume of diagnostic services purchased from outside providers is substantial enough, it may be more economical

The Augusta Correctional Medical Institution (ACMI)

The Augusta Correctional Medical Institution (ACMI) is a 135-bed hospital that also operates as the main referral center for the Georgia Department of Corrections. Before 1989 it was a 135-bed infirmary on the site of a 600-bed prison. It provided primary health care to prisoners at the facility and also served as a focal point for coordinating the delivery of secondary and tertiary care to prisoners referred there from all prisons in the State. Until it was converted to a hospital, all surgical work was done outside the department, at the Humana Hospital in downtown Augusta. In 1989 the State completed constructing two surgical suites and contracted with a private firm to manage and operate the facility. Between 600 and 700 procedures are performed at ACMI each year, primarily general surgery, orthopedic, and ear, nose, and throat, but not tertiary-level procedures, which are still done at the Humana Hospital.⁴² Under the first contract, the department paid the contractor on a per inmate basis, at an annual rate of \$1,625 per inmate for the fiscal year 1989.⁴³ The contract delegates responsibility for health care provision to the contractor and permits it to determine the number of personnel needed to fulfill the contract's terms. The department employs specific surgical consultants directly and pays in accordance with preestablished rates for each procedure—essentially, on a discounted fee-for-service basis. By 1994 the department had acquired enough experience at ACMI to consider a flat rate for consultant services, to include any and all surgical procedures, but decided not to pursue this change because the State was moving toward a comprehensive contract for all services statewide. (See chapter 4.)

The department estimates that the costs of performing surgeries at ACMI are substantially less than the alternative—using community hospitals exclusively. The cost of professional services would be no different because the department would be paying similar rates if surgeries were performed in community hospitals and not at ACMI. Large savings accrue, however, as a result of avoiding all the hospital charges associated with surgical care in community hospitals. The department estimates that it saves 50 percent of these hospital charges by virtue of providing surgical treatment at ACMI. Savings also accrue by avoiding the transportation and security costs associated with managing prisoner patients in general community hospitals.⁴⁴

for corrections departments to develop at least some of that capacity in-house. Rather than being transported to hospitals under guard for diagnostic procedures, prisoners may be seen on prison grounds, thereby averting the cost of security. For example, when the Federal Bureau of Prisons' referral center at Lexington, Kentucky, was converted from a coed to an all-women's facility, the demand for mammography exams increased sufficiently to warrant purchasing the necessary equipment. The referral center administered 600 mammograms during the first year, and within 16 months, the equipment had paid for itself.⁵⁵ Similarly, the Oregon Department of Corrections has its own in-house radiology service, with State employees operating the equipment and developing the films. Films are read by a national contractor, who receives them in the mail. The cost of this arrangement is said to be much lower than if prisoners were taken to community-based radiologists.⁵⁶ Obviously, the cost-effectiveness of building in-house capacity depends on the size of the demand for services, the cost of delivering them directly, and the alternative cost of purchasing them entirely from outside providers.

Sharing Services

Another approach to reducing spending on hospital services is to share facilities owned by other government agencies. By combining resources available to each of the agencies, prisons may be able to reduce their need for expensive care purchased in community hospitals. Through sharing arrangements, the demand for in-house services may be large enough to afford advantageous economies of scale that one agency may not obtain if it were to go it alone. For example, the U.S. Army's Munson Army Hospital at Fort Leavenworth, Kansas, has an 11-bed secured unit for army personnel under discipline. The U.S. Penitentiary at Leavenworth, Kansas, has developed a memorandum of agreement between the penitentiary and the hospital, whereby the Army provides the facility and the penitentiary provides physicians, through contractual arrangements with the Bureau. The penitentiary thereby gains inpatient, outpatient, and ambulatory care at the hospital, at a substantially lower cost than would be incurred if prisoners were treated in privately owned com-

munity hospitals. Bureau officials estimate that this arrangement saves the agency \$300,000 a year.⁵⁷

Some State correctional systems utilize hospitals operated by State universities. For example, the Texas Department of Criminal Justice (TDCJ) has a 168-bed hospital in Galveston, Texas, located on the campus of the University of Texas Medical Branch (UTMB). This hospital is staffed by TDCJ employees, with the exception of the professional medical staff, which, since 1987, has been provided by the UTMB through an agreement with the TDCJ. The facility is managed by the UTMB, and coordination with the TDCJ is accomplished through a TDCJ liaison officer. Funds to support the UTMB's participation are appropriated by the legislature specifically for this purpose. The department thereby gains a high-quality medical staff and management for this facility, and the UTMB acquires an excellent training ground for medical students and interns.⁵⁸ In response to the expansion of the prison system population, Texas is adding other university-operated facilities, including another 149-bed regional center and a 48-bed hospital.⁵⁹

This hospital is the department's principal resource for the tertiary care of prisoners. In addition, UTMB staff conduct outpatient specialty clinics for prisoners. During fiscal year 1993, the hospital recorded 25,555 outpatient visits by prisoners. For those prisoners admitted to inpatient status, the average length of stay during that year was 10.5 days.⁶⁰

Prisoners are transferred to the hospital from correctional facilities throughout the State. Decisions to refer a prisoner there are made by the unit physician at each facility. The request is communicated to UTMB physicians, who review the referral request and speak with the unit physician if they question the appropriateness of the referral. Because the amount of money paid each year to the UTMB is fixed, there is a financial incentive for UTMB physicians to limit the inappropriate use of the facility. Corrections administrators report that relations between reviewing physicians and unit physicians have generally been very good, with little conflict. If unit physicians and the UTMB staff do not agree on the appropriateness of a referral, the matter is referred to the TDCJ health services central staff and the UTMB clinical

The Nevada State Prison's Regional Medical Facility

In January 1994 the Nevada Department of Prisons opened a 120-bed acute-care medical facility on the grounds of the State prison in Carson City, which provides 60 beds for medical patients and another 60 for mental health patients.⁴⁵ Medical patients include a substantial number housed for long periods with chronic illnesses, some who need acute care and are awaiting transfer to a community hospital for service, others who are convalescing from surgery performed in community hospitals, and still others who are undergoing surgery at the facility. The facility was created to reduce the "logistical nightmare" of scheduling inmates for outpatient consultations and inpatient admissions and transporting them to and from these hospitals.⁴⁶ Creating an acute-care facility behind prison walls enables the department to consolidate prisoners needing attention in a secure environment. There they can be seen either by physicians on staff or by consulting physicians brought in from the neighboring community. The facility has its own radiology department, with a State-employed x-ray technician, and films are sent to outside specialists under contract to be read. The department also operates outpatient clinics for inmates in the Nevada State Prison; they are staffed by State-employed physicians and augmented by consulting physicians brought in on a fee-for-service basis.

Although the department did not design the medical facility to include a surgical center, one of the physicians it hired for general medical services happened to be a board-certified surgeon. The department decided to capitalize on this and built a surgical suite, thereby reducing the demand for community hospitals even further. Community hospitals are still needed for more demanding types of surgery, however, because the facility is not equipped for them. When needed, specialist surgeons are brought in from the outside and paid on a fee-for-service basis. The department expects that significant savings will result from meeting some of its demands for surgical procedures at the medical facility, but it is too early to evaluate its cost-effectiveness. To recoup the investment in equipment and supplies, a sufficient number of expensive surgical procedures need to be performed there. Much depends, also, on continued employment of this board-certified surgeon. If he were to leave and the State were unable to hire somebody in his stead, relying entirely on consulting surgeons would reduce somewhat the economic advantages of in-prison surgeries.⁴⁷

affairs administrator. In the event that a unit physician requests a transfer to a community hospital rather than to the TDCJ hospital in Galveston, a team considers the case and makes the determination. The team also works to ensure that the patient is moved back to the correctional facility or transferred to the TDCJ hospital in Galveston as soon as is medically prudent.⁶¹

In addition, the UTMB and Texas Tech (which also provides services under contract to prisoners in several facilities) are considering establishing departments of correctional medicine. This would entail adding the unit physicians as faculty members. This arrangement would be attractive to physician providers and present the opportunity to develop correctional-medicine residencies among medical students.⁶²

Other State correctional departments obtain the services of State university medical schools but prefer to treat this like any other contractual relationship. Utah's department, for example, pays the university medical school a fixed sum to cover some of the overhead administrative expenses and then purchases services on a discounted fee-for-service basis. Correctional administrators in that State prefer to contract directly with the hospital for services because this preserves their decision making autonomy.⁶³ At the end of the contract period, market conditions may change and corrections administrators may determine that a more advantageous arrangement could be negotiated with a private provider. If funds for the provision of prisoner health care were placed in another agency's budget, corrections administrators would lose the ability to choose other alternatives. This may be a shortcoming in the Texas arrangement, whereby the legislature appropriates funds to the State's university to provide medical services to prisoners. If the department had control of those allocated funds, it might sometimes decide that it is more economical to purchase services locally rather than incurring the cost of transporting prisoners across the State to Galveston. To gain more control over its resources, the TDCJ plans to ask that the legislature put all funding, including the hospital funds, in the TDCJ budget during the next appropriations process.⁶⁴

Hiring Physicians on Staff or on Contract

Expenditures for consulting physicians have increased rapidly in many prison systems; one approach to hold costs down is to hire physicians and pay them a salary instead of fees for every procedure they perform. As discussed earlier, the State of Nevada has successfully hired a surgeon to work at the State's Regional Medical Facility. North Carolina's

Department of Correction has also chosen to hire surgeons on staff rather than rely on contracting physicians. (These physicians perform surgery in one of two operating rooms at the medical facility located in the Central Prison at Raleigh.) During fiscal years 1991, 1992, and 1993, the North Carolina Department of Correction spent an average of \$27,000 each month for surgeons serving the department under contract. In fiscal year 1994, the department devised a compensation scheme to attract surgeons on salary. Surgeons are paid \$120,000 per year. This arrangement has reduced the average monthly cost for surgeons in fiscal year 1994 to \$16,666, substantially less than it had been paying previously for consulting surgeons on a fee-for-service basis. Under the old fee-for-service arrangement, physicians were charging the department for seeing every patient, even in brief encounters. With the decision to bring surgeons on staff rather than to buy them on a consulting basis, the incentives have changed. Now doctors working on salary have an interest in rationing their time effectively and limiting the provision of their service to prisoners who need care.⁶⁵ In Oregon, following a review of the department's health care system, administrators decided to reduce expenditures for off-site care by contracting with a surgeon who agreed to be paid on a monthly basis rather than on a per procedure fee-for-service basis. This quasi-salaried arrangement has generated savings for the department.⁶⁶

In many places, however, State prison systems are unable to recruit physicians willing to serve on staff. Several factors contribute to this. First, there is a nationwide shortage of some types of physicians. Moreover, civil service pay scales for several categories of health care professionals are below market rates, which makes it difficult to attract and keep qualified people. Working in prisons rather than in the free community also tends to carry a stigma that hinders the recruitment of physicians. Exacerbating these obstacles is the difficulty of attracting physicians, especially specialists, to the rural locations where many prisons are located.

The highest base salary that could be paid to a physician during the late 1980's in the Federal system was \$75,000 per year. At that time, it was possible to award an additional \$20,000 to physicians so as to attract them or to keep them in the Bureau, which made the effective maximum salary \$95,000 per year. Unfortunately this was still below what many doctors hoped to make as their starting salaries. According to one recruit in one of the Bureau's referral centers (he took a cut in salary) \$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. Medical administrators at the Bureau, interviewed in 1990, were quite uniform in their estimates of the salaries needed

to be competitive: about \$125,000 a year for physicians. Because psychiatrists can command even more money on the open market, one medical administrator thought that up to \$150,000 per year was needed to recruit them effectively.⁶⁷ These thresholds have risen since then.

The constraints on changing these salary schedules in many States are so tight that it is sometimes easier for a department administrator to turn to contracting rather than to try to get the government salaries raised. For example, the salaries paid to State health care workers in the 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 upward without raising the salaries of all physicians within the broader bargaining unit. To a decisionmaker sitting in a line agency, trying to accomplish a "simple" raise in salaries must appear to be far more formidable than choosing the easier path—to contract for these services to bypass State personnel regulations and pay restrictions. Indeed, the Massachusetts Department of Correction chose to contract with a single firm to provide physician services for precisely that reason. The contractor is not bound by State personnel regulations and noncompetitive pay scales and is consequently able to hire higher-quality staff in the required numbers.⁶⁸

In addition to below-market salaries, administrative restrictions on flexible staffing arrangements in many States put government agencies at a comparative disadvantage in the hiring market. Liberated from personnel regulations, contractors can make creative use of part-time employees. In Massachusetts during the late 1980's, for example, a statewide contractor was able to attract well-trained psychiatrists and psychologists who were beginning to build their private practices. The employment agreement was flexible enough to let those persons cut back their prison work progressively, over months or years, as their private practices grew. The contracting firm also employed physicians who wanted to "moonlight" by being on call during evenings for emergencies.⁶⁹

In other States, corrections departments contract with other agencies to provide them with a conduit for hiring physicians at salaries above the civil service pay scales. For example, the Corrections Division of the Hawaii Department of Public Safety contracts with a community health center, which acts as a personnel agency. The center is able to hire physicians at more competitive salary and fringe benefit levels, even though the physicians work entirely in correctional facilities.⁷⁰ Similarly, the Tennessee Department of Correction

has an agreement with community health agencies, which are quasi-State agencies not officially part of the government. Because they are not public institutions, they can offer physicians market salary rates. Physicians working for these community health agencies provide services to the Department of Correction's prisons.⁷¹

Controlling Costs by Reviewing Bills

Although not precisely a strategy for obtaining lower prices, correctional systems have saved money by strengthening the review procedures for bills submitted by outside providers. Errors in billing are very common, and these cost departments a substantial amount of money. The Washington State Department of Corrections recently conducted a pilot project to review bills, whereby a staff member in the department was given the specific task of reviewing bills for health services. Within a short period, enough errors in billing were identified to pay for the cost of the staff member's assignment. The department decided to expand this unit to seven persons.⁷² In some instances, payment control can be strengthened merely by getting hospital billing and agency payment cycles synchronized. The Florida Department of Corrections contracts with a national firm to process and review claims, and department analysts estimate that this saved a total of \$637,000 during fiscal years 1991, 1992, 1993.⁷³

Summary

Some of these cost-containment strategies seem uncontroversial and can be—and probably should be—implemented in all States. For example, if accounting controls are not developed sufficiently to review all health services bills closely, a dedicated bill-review capacity should be established. States should develop arrangements for purchasing pharmaceutical supplies at a discount. Rather than simply paying hospitals at their usual and customary rates, prison administrators should negotiate agreements in advance to pay at reduced rates. Not only should the rates be as low as possible, but payment arrangements should be structured to create incentives for cost-conscious patient management. This can be done by shifting as much financial risk as possible to the hospital. Where both possible and economical, the capacity should be created to provide certain hospital services in-house that would otherwise be purchased from outside providers. This includes developing intermediate levels of care so that expensive acute-care beds can be used only for those who need acute care. Finally, administrators should negotiate agreements with physicians to pay them at reduced rates for their services. Wherever possible, they

should hire physicians under contract, paying them according to periods of time worked, rather than per procedure.

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Chapter 4

Controlling the Utilization of Health Care Services

Beyond efforts to restrain health care spending by lowering the cost of goods and services, correctional administrators can seek to decrease the use of these services, especially expensive ones. Indeed, limitations on services as well as procedures and financial incentives designed to discourage overutilization of health care resources are common features in managed care programs in the free community. Transporting these features into prison health care systems is difficult, however, because prisoners have a right to health care that citizens in the free community lack and because the courts have been very active in enforcing this right. Moreover, deciding which level of care is both appropriate and constitutional is not easy, and probably not even possible.

Five broadly different approaches to controlling utilization of services are discussed here:

- The first is the attempt to limit, by means of formal regulatory powers, the use of services deemed unnecessary or inappropriate. These regulatory approaches set explicit limits on all patients and providers, and thereby impose a fixed external constraint on decision making by health care clinicians and administrators.
- The second approach includes various utilization-management procedures borrowed from free-community managed care programs that seek to internalize control over patients' use of services. That is, by means of case-by-case review, the health care providers themselves—including clinicians and administrators—seek the most cost-effective treatment path for each patient.
- The third approach is to create a disincentive to prisoners' unnecessary use of services by requiring copayment at the point of service. Insurance plans in the free community have long used copayment requirements as a "demand side" tool to discourage unneces-

sary overutilization. Importing such requirements into prisons raises a number of issues, both of design and of implementation, that are not faced in the free community.

- The fourth approach is to limit the use of costly and unnecessary medication.
- A fifth strategy is to screen longer-term prisoners for those emergent and chronic conditions (such as hypertension and diabetes) that have a potential for high expense and to take steps to ensure prisoners' compliance with maintenance medications and treatments. Health maintenance organizations have contemplated and used this strategy in the free community.

Regulatory Policies: Limiting Health Care Services

During the last two decades, in a climate in which decisions about prison health care have been affected heavily by the Federal courts' interests, most of the attention focused on determining what constitutes the minimum levels of adequate care. Beginning in the early 1970's, activist judges began to draw, with increasing specificity, the lower limits below which prison systems could not go without being liable to charges of "cruel and usual" punishment. In recent years, however, attention to a different kind of limit has been mounting, largely because of concern for rising health care costs in both prisons and the larger society. Rather than focusing only on the lower boundaries of what must be provided, some officials are beginning to define upper limits on the kinds and amounts of care to be given to prisoners. Because any attempt to limit health care in prisons raises the specter of legal challenges, efforts to delineate the boundaries of health care services is fraught with controversy.

Evolving Legal Standards

Beginning in the early 1970's, the Federal courts began to abandon their policy of deferring to the executive branch's discretion in matters of prison administration, including prison health care, and initiated the development of law defining acceptable standards of care—the "lower limits." In *Holt v. Sarver*, the court established in 1970 an imprecise test of what constituted unconstitutional care in a challenge to conditions and practices throughout the entire Arkansas prison system, including medical and dental care.

Generally speaking the punishment that amounts to torture, or that is grossly imposed, or is inherently unfair, or that is unnecessarily degrading, or that is shocking or disgusting to people of reasonable sensitivity is "cruel and unusual" punishment. And a punishment that is not inherently cruel and unusual may become so by reason of the manner in which it is inflicted.¹

In 1976 the U.S. Supreme Court took the opportunity in *Estelle v. Gamble* to refine constitutional principles governing the States' obligation to provide medical care to prisoners. Gamble, an inmate in a Texas prison who was injured on a work assignment, alleged that he was not cared for adequately and that the custodial staff interfered with his care. The court concluded

that deliberate indifference to serious medical needs of prisoners constitutes the "unnecessary and wanton affliction of pain" [citation omitted] proscribed by the Eighth Amendment. This is true whether the indifference is manifested by prison doctors in their response to the prisoner's needs, or by prison guards in intentionally denying or delaying access to medical care or intentionally interfering with the treatment once prescribed. Regardless of how evidenced, deliberate indifference to a prisoner's serious illness or injury states a cause of action.²

In subsequent cases, Federal judges developed still more specific rules. For example, in *Capps v. Atiyeh* (1982), three basic requirements for constitutional medical care for prisoners were articulated.

The State's obligation is three-fold. First, prisoners must be able to make their medical problems known. . . . Second, the medical staff must be competent to examine inmates and to diagnose their illnesses. Third, staff must be able to treat the inmate's medical problems or to refer the inmates to outside medical sources who can.

Many judges went even farther, reaching far into the prison administrators' domain and ordering very specific conditions to be met and procedures to be established. These included listing the essential elements of personal hygiene (for example, soap, towels, toothbrush, toilet paper), drug detoxification, drugs and special diets that are medically prescribed, hours of available emergency medical care, in-service training programs, patient monitoring systems, training of medical personnel, and so on (for example, *Lightfoot v. Walker*, 1980; *Finney v. Arkansas Board of Corrections*, 1974; *Holt v. Hutto*, 1973; *Steward v. Henderson*, 1973; *Wayne County Jail Inmates v. Lucas*, 1974).

These and subsequent rulings have incompletely defined the health care "benefit package" to be provided prisoners. No single Federal court decision, applicable to all prisoners in all prisons, has detailed all the specific services that must be provided. In general, what the Federal courts have done is to establish principles with specific examples, from which standards can be deduced. Moreover, not all court decisions applied equally to all categories of inmates. For example, some pertained only to civil commitments, or detainees, and not to convicted prisoners. Many court decrees were binding only on the specific litigants involved. More important, the spirit animating the Federal court's interest in prison health care has been to define the *lower* limits below which prison administrators cannot go. The courts have not been asked to define upper limits.

For more specific guidance regarding the amounts and kinds of care to provide inmates, prison health care administrators have looked to two other sources: professional standards and community standards.

Professional Standards

The professional associations of prison administrators and health care administrators took up the task of developing more precise standards. In 1976 the American Public Health Association (APHA) drafted the first national health care standards for correctional institutions. In the following year, the American Medical Association (AMA) published its first correctional health standards, which were designed for jails, and revised them in 1978, 1979, and 1981. The American Correctional Association (ACA) had developed standards in 1966, and although not as specific as the APHA standards, they were used as part of its accreditation program. In 1979 the AMA issued its first health care standards for prisons, and in 1982 the AMA accredited the first prison system—the Georgia State Prison at Reidsville.³

At present, the two main sets of standards for prison health care are the ACA's and those of the National Commission on Correctional Health Care (NCCHC), most recently issued in 1992. As with the evolving case law, these various sets of professional standards have served principally to define the levels of medical care that are considered acceptable and preferable. Except for stating that cosmetic surgery is not necessary unless there are "important considerations or possible serious psychological impact,"⁴ they are silent on what constitutes upper limits.

Community Standards

Another solution to the lack of specific guidance regarding upper limits on the kinds and amounts of services to provide inmates has been to adopt the model of "community standards." In their review of the legal rights to health care in correctional settings, Boney, Dubler, and Rold conclude:

Traditional precedent provides clear benchmarks for the development of a constitutionally adequate system of health care. *The best measures of an appropriate system of care, however, continue to be found in the contemporary community standards of the various medical professions.* It is to these standards and requirements that correctional health care planners, administrators, and providers should look for guidance in their daily endeavors.⁵

Prison administrators are thereby directed to provide medical services that are virtually the same as those expected in the free society. In operational terms, this means that inmates are to be given the same levels and kinds of services that they would obtain if they were not inmates.⁶

Medically "Necessary" and "Unnecessary" Care

Case law, correctional professional standards, and the standards of medical care in the community provide bases for defining not only the lower limits of care, but also some upper limits. For example, in its agreements with free-community hospitals, the Texas prison system commits to reimburse providers for all "covered hospital services," which are defined as "all medically necessary outpatient and inpatient services."⁷ "Medically necessary" services are defined as:

- Appropriate and necessary for the symptoms, diagnosis, or treatment of the medical condition.
- Provided for the diagnosis or direct care and treatment of the medical condition.

- Within standards of good medical practice within the organized medical community.
- Not primarily for the convenience of the TDC Inmate Patient, the physician, or another provider, or the TDC Inmate Patient's legal counsel whether or not for or in anticipation of litigation.
- The most appropriate supply or level of service that can be safely be provided. For hospital stays, this means that acute care of an inpatient is necessary due to the kind of services the TDC Inmate Patient is receiving or the severity of the condition, and that safe and adequate care cannot be received as an outpatient or in a less intensified medical setting.

Implicit in this definition of medical necessity is some notion of an upper limit on health care to be provided. If prisons are to deliver medically necessary care, they need not provide medically "unnecessary" care. Some States explicitly exclude as unnecessary such procedures as elective circumcision, mole removal, breast surgery for men, cosmetic surgery, and radial keratotomy, among others. However, beyond these explicitly excluded services, the definition of "medically necessary" is probably elastic enough for one physician to deliver procedures to some prisoners which other physicians might term unnecessary. Ambiguity is probably most pronounced with respect to conditions for which new diagnostic and treatment technologies have been developed.

Technological Advances and the Expanding Scope of Medically Appropriate Services

Improved technologies permit improved and even new approaches to patient care, and the availability of these technologies expands the boundaries of what patients come to expect as part of their "normal" health care service. Organs that fail can be replaced; blocked coronary arteries can be bypassed; bone marrow can be replaced; whole joints—such as knees—can be replaced with artificial ones; extremely premature babies, who once had a very slim chance of making it, can be kept alive through intensive care; death can be forestalled for months and years by life-supporting devices; and diagnostic abilities can be enhanced by expensive devices.

In a free market where patients who have money to purchase these often expensive services are able to obtain them, there is no need to consider whether these services should be provided—or whether a limit should be placed on their use—although some medical ethicists have found reason to ponder

issues raised by the availability of these technologies. Whatever limits exist for these services are generally established either by those who pay for the services—commercial insurance companies—or by the providers themselves, who elect the menu of services they want to provide to the market. For example, hospitals may choose, as a matter of policy, not to provide heart transplants to persons over a certain age. Third-party payers or the providers themselves generally have the discretionary authority to limit the services they will either pay for or provide, and the main constraint on their decision about what to allow and what to exclude is how it will affect their position in the market for services. To be sure, patients do bring suits against insurers and providers for not providing certain services, but this does not invalidate the general point made here: consumers in the free community do not have an unrestricted legal right to any type of service from a health care provider.

In prisons, however, where prisoners do not typically pay for their health care services, the availability of “exotic” treatments raises questions of policy. Should prison systems provide treatments that prisoners would not have received if they were free because they couldn’t pay for them? Do prisoners have a right to all treatments for “any condition . . . if the denial of care might result in pain, suffering, deterioration or degeneration”?⁸ Are “community standards of care” clear enough to enable prison administrators to draw bright lines around treatments that fall within the bounds of “medical necessity” and those that do not? Because of the legal obligation to meet the standards of good medical practice within the organized legal community, the grounds are infirm for limiting expensive or exotic diagnostic tests or treatments that may arguably be medically necessary.

Looking to State Benefit Policies for Guidance on Upper Limits

Because general principles defining “medical necessity” and “community standards of care” are not always precise enough to guide prison administrators when faced with considerations of whether to provide treatment, some administrators have looked to upper-limit-setting standards established in the larger community. For example, in California prisons, the chief medical officers reportedly rely on the application of what they call the Medi-Cal standard to guide their decisions about the levels of care to provide prisoners.⁹ (Medi-Cal is the State’s health care program for persons living below the poverty line.) That is, they guide their clinical decisions in part by what they think Medi-Cal would permit. The logic of this practice is that prisoners, like Medi-Cal patients, for the most part live below the poverty line. However, as a draft

version of the California Department of Corrections document concludes, “In following Medi-Cal, nearly any medical procedure can be justified.” Consequently, “[this] really is not a ‘standard’.”¹⁰

Other approaches to defining explicitly a “benefit package” in the free community are the efforts in Oregon and California to develop lists of diagnostic and treatment procedures to be supported with public funds, restricting access to services deemed ineffective or not cost-effective. (See pages 45 and 46.) The Oregon effort builds on the State’s broader work to establish limits on all publicly supported Medicaid services. In California, the Department of Corrections is blazing its own trail; it aims to base treatment guidelines and limits on what “outcomes” research studies have found to be effective.

However, in recent months some observers have questioned the ability to develop treatment guidelines from outcomes research.¹¹ Unlike clinical trials, outcomes research typically relies on analyses of claims data and other similar data describing treatments provided to different types of patients and the outcomes of those treatments. Whereas clinical trials involve random assignment to treatment, outcomes research typically compares the treatments prescribed to patients after consideration of their conditions. The likelihood that patients receiving different types of treatment also differed in other ways frustrates our ability to draw strong conclusions about the effects of treatment alone, independent of these other differences among patients and their illnesses. If judgments about cost-effectiveness cannot be grounded in strong scientific studies, the choice of “cost-effective” techniques or desirable treatments will continue to be made by informed judgment. As such, they are likely to be subject to dispute and differences of informed opinion.

Are Limits Needed?

If decisions about limiting medical treatment cannot be based on “value-free” scientific findings and thereby be rescued from value-laden policy judgments, it is worth considering whether explicitly defined benefit packages are desirable in correctional settings. Correctional managers may want to preserve their decisionmaking autonomy by not promulgating explicit benefit packages. The cost of not establishing benefit packages, however, is that these managers will have to conduct more case-by-case reviews, which is time-consuming. Consequently, procedures such as those established by the Oregon Department of Corrections, which combine both standards and case-by-case review procedures, may offer the most promising approach if one is to establish limits.

Oregon: Combining Lists of Included/Excluded Services With Case-by-Case Review

In 1987 physicians recommended that a young boy who had developed acute leukemia receive a bone marrow transplant. The boy's family was covered by the State's Medicaid program, but that program refused to reimburse for the transplants. A controversy erupted over this decision, and the State's legislature decided to face head-on the issue of the kinds of procedures public funds would pay for. (Paying for expensive transplant procedures—of organs as well as bone marrow—for some persons raised questions when the State was not able to pay for others' basic and less expensive health services.) A State panel was organized and charged with the task of setting priorities and limits on what public funds would support, and the result was a list of diagnostic and treatment procedures that would be covered. This list was then submitted to the Health Care Finance Administration with a request to waive Medicaid regulations.

What made this effort extremely controversial was the objective of excluding certain types of procedures while including others to contain costs. The idea was to continue to promote access to quality care for essential and effective services by focusing cost containment on the marginal services. Excluded were certain services that were deemed not to be cost-effective—that is, were more costly and/or less likely to be effective or were rarely needed. This was interpreted as "rationing" health care and was met with political opposition. The legislature subsequently modified the list by adding a number of procedures and services.

The Department of Corrections then defined its own system of therapeutic levels of care that generally corresponded with the State's Medicaid list of included services. (The department adopted as its framework the first, less inclusive list devised by the State panel.) The system has four levels but also incorporates a procedure for making case-by-case decisions for certain types of patients.¹²

Level 1 cases include all procedures performed in connection with a medical emergency. These can be performed without preapproval by authorized medical providers and are not reviewed subsequently. The procedures in this level correspond to the first three categories of the Oregon Medicaid list. Level 2 cases include most treatments for chronic diseases that are medically necessary. These can be performed with the authorization of the institutional medical officer and are subject to a retrospective review for appropriateness.

Level 3 cases include interventions that require more justification to be considered medically necessary for prisoners. These include, for example, hernia repairs, kidney transplants, and hip replacements. In these cases, institutional medical officers make a recommendation that is reviewed by the department's clinical director for his or her approval. To guide these determinations, the department employs principles articulated by Anno, Falver, and Harness (1988):

1. urgency of procedure (because of pain or risk of further deterioration),
2. expected remaining duration of incarceration,
3. necessity of procedure,
4. probability of successful outcome of treatment,
5. patient's desire (expressed or implicit) for the intervention,
6. expected functional improvement as a result of intervention,
7. whether the intervention is for a preexisting condition,
8. whether the intervention is a continuation of previous treatment for a chronic condition or is the initiation of a new course of long-term treatment, and
9. cost.

Level 4 cases are those that are considered "elective" and not medically necessary. Examples include cosmetic surgery, sex-change operations, and tattoo removals.

This scheme thereby embraces a fixed list of procedures to be provided and excluded—the design of which was based in part on a weighing of cost and likely efficacy—as well as a case-by-case decision procedure that forces attention to the individual peculiarities of the case, the patient's needs, and the constraints on the prison's health care system. Indeed, physicians can request that level 4 procedures be conducted, in which case the review procedures specified for level 3 cases are followed. This limiting of health care services in prisons has withstood legal challenge.¹³

California: Fixed Scope of Services Based on Outcomes Research Findings

California is moving toward an explicitly defined list of services to be provided to prisoners in the Department of Corrections but is adopting a slightly different approach from the one by the Oregon Department of Corrections. Like Oregon, the department is establishing a written scope of services to be provided and excluded. The emphasis in California, however, is on basing this list on research establishing the effectiveness and cost-effectiveness of particular procedures and services. In the introduction to the January 1994 draft "Medical Scope of Services," the Medical Standards Task Force declared:

Cost-effective medical care in State Prison systems will not differ in its essential elements from that which is provided in general society. The medical care requirements are similar if not the same, as are the medical care issues. An approach which recognizes the need to differentiate between essential and non-essential care which is implemented through clinical treatment guidelines or critical pathways driven by outcomes research will produce the greatest likelihood of success in achieving cost-effective medical care. This success will be marked by an improved quality of care and costs which are contained or reduced, including the costs of litigation.¹⁴

The Medical Standards Task Force thus embraces a vision of the future in which clinical judgments are informed greatly by research findings. As Dr. Paul Ellwood writes, "We can anticipate that in time the Outcomes Management System will permit simple projections of patient outcomes in critical and quality of life dimensions . . . for each of the physicians' diagnostic and therapeutic regimens. Outcomes management could lead to an entirely new way to practice medicine—practicing medicine epidemiologically using growing computing power and information."¹⁵

The first step toward this future is to establish formally a list of included and excluded services. The exclusions (in the draft report) are shown in Table 4.1.

The next step is to conduct outcome studies to refine and/or modify the existing lists. As the Medical Standards Task Force notes, "Crucial to this effort is the generation of data sufficient to identify the subjects for initial studies and to support the continuing effort to provide the operational foundation for cost-effective medical care: Outcome-based treatment guidelines."¹⁶

Utilization Management Procedures To Control Services Provided

During the last decade, utilization management has swept the field of health care as a means of managing patients' use of services. The Institute of Medicine's Committee on Utilization Management by Third Parties defines utilization management as "a set of techniques by or on behalf of purchasers of health benefits to manage health care costs by influencing patient care decision making through case-by-case assessment of the appropriateness of care prior to its provision."¹⁷ The major types of utilization management include hospital preadmission review, concurrent review of length of stay, second surgical opinions, catastrophic case management, and retrospective review. Typically, hospital preadmission certification programs determine whether the inpatient care proposed by a physician is appropriate and required. Con-

current reviews are conducted after the patient is in the hospital and are used to determine how long the hospital stay should be extended. Second opinion programs involve referrals to other physicians to confirm whether the proposed elective surgical procedure is needed before the procedure is performed. Case management reviews focus on providing cost-effective care for patients needing high-cost treatments or extended care. Retrospective reviews evaluate the appropriateness of treatment after it is completed. Such reviews are undertaken to educate providers about standards for appropriate care, to identify providers who deviate from the norm, and sometimes to determine whether reimbursement should be denied. Because the largest health care expenditures are for consultations and procedures performed by specialists and for hospitalization, utilization review procedures typically are designed to require authorization for specialty care and hospitalization but not for primary care.

Table 4.1

**Excluded Services: California Department of Corrections,
Draft Medical Scope of Services**

- A. The following services are excluded from coverage with the *exception* that they may be provided in an individual case upon the recommendation of the Chief Medical Officer *and* with the prior approval of the Health Care Services Data Research Committee (composition of this committee is not yet established).

The decision to provide services shall be based on medical necessity as described on page 1 and approved health care outcome data supporting the effectiveness of the service as medical treatment.

Other factors such as coexisting medical problems, acuity, length of incarceration sentence, place of service, and availability of services shall also be considered.

Specific criteria upon which to base approval of any of these services will be developed to the extent that medical outcome data or other persuasive evidence supporting their use is obtained.

1. Religious healing—limited to two services per month to the extent allowed under Title XVIII of the Social Security Act
2. Multiple organ transplants
3. Cosmetic surgery
4. Speech pathology
5. Occupational therapy
6. Sterilization
7. Nutritional therapy
8. Chiropractic services
9. Hormonal therapy for sex changes
10. Cosmetic implants
11. Abortions (refer to CDC policy on abortions)

- B. All diagnostic services necessary to make a complete diagnosis are included in the scope of medical benefits for inmates; however, treatment for conditions which get better on their own or conditions not readily amenable to treatment or treatments for cosmetic purposes are not provided.

1. Examples of conditions which get better on their own include dizziness of unknown etiology, mononucleosis, viral hepatitis, viral pharyngitis, mild sprains, viral gastroenteritis, benign cysts, nonvenereal warts, common cold, canker sores, stys, minor bumps and bruises, dandruff, acne, etc.

2. Examples of conditions not readily amenable to treatment include infertility, widely spread cancers (hospice care available), multiple organ transplants, TMJ dysfunction, single organ transplants when the inmate maintains the same lifestyle which damaged the original organ such as alcohol abuse, chemical dependency, etc.

3. Examples of cosmetic conditions include removal of scars, keloids or tattoos, nontoxic goiter, benign skin tumors, rhinoplasty, breast reduction/enlargement, penile implants (Title 15, Section 3354.1).

4. Example of other services not provided include acupuncture, orthoptics, pleoptics, etc.

Source: Robin Dezember, Assistant Deputy Director, Health Care Services Division, California Department of Corrections (personal communication with author, 28 April 1994).

Utilization management and review practices began in the 1960's and 1970's and have become much more widespread in the last decade. Preadmission review owes its origins to the California Medi-Cal's Certified Hospital Admission Program (CHAP), initiated in 1970 to control hospital admissions and length of stay. Retrospective review programs were developed somewhat earlier, in the mid-1960's, as part of Public Law 89-97, which created the Medicare program. The law obliged extended care facilities at hospitals participating in the Medicare program to conduct retrospective review programs, including utilization reviews, clinical care evaluation studies, and medical audits.¹⁸ Retrospective review procedures were modified in 1972, when Congress passed another law mandating the establishment of a nationwide network of professional standard review organizations (PSRO's), which were voluntary, not-for-profit groups of professional peers responsible for ensuring that Federal funds were spent on services that conformed with established professional standards. In 1982 Congress enacted still further reforms of the Medicare utilization review procedures and replaced PSRO's with utilization and quality-control peer review organizations (PRO's). This legislation also gave stronger emphasis to concurrent (or continued stay) review than to retrospective review.

In the private sector, evolution followed a similar course. Prior to 1970, very few private health insurance firms had developed any utilization review or management procedures. In the 1970's, they began to incorporate retrospective review into their claims review processes and to develop independent peer review and utilization review systems. These were not widely adopted, however. By 1984, surveys by benefit consulting firms found that only about 5 percent of large employers included utilization management provisions in their health benefit programs.¹⁹ But by 1989, surveys showed that plans held by one-half or more of large employers included such provisions.²⁰ A GAO survey in 1991 found that more than 90 percent of private indemnity plans and most network-based managed care plans incorporated some form of utilization review techniques.²¹

The typical form of prospective or concurrent utilization review procedures is for the patient, the physician, or the hospital to make contact with the agency responsible for conducting the review—either the insurance company or a designated reviewer/manager. The first contact is often with a registered nurse, who collects information about the case and the proposed services. This person may make a decision about whether the proposed service meets the threshold of medical necessity for coverage under the patient's health plan. In the event that the reviewer cannot certify that the care is clinically necessary or appropriate given established

review criteria, a staff or consulting physician is called for a final determination, usually after discussion with the patient's physician who is requesting approval. In general, determinations are made by comparing the clinical conditions in the case at hand with the preexisting criteria or, failing that, the normative judgments of physicians and reviewers. The Institute of Medicine (IOM) reports that it is uncommon for the review process to end with a refusal to certify the medical necessity or appropriateness of the service requested by the physician if the physician strongly contends that it is needed. Instead, the emphasis "seems to be on changing through education, persuasion, and negotiation."²²

Does Utilization Review Reduce Inappropriate Hospitalization and Contain Costs?

A GAO survey found that employers and managed care representatives believed that utilization review procedures were the key elements of managed care plans' efforts to contain costs.²³ Indeed, as Moran and Wolfe write, most of what passes for managed care is really "thin utilization review," because only about 25 percent of the consumers have plans with stringent utilization controls such as primary care gatekeeping.²⁴

Studies of the early forms of utilization review reached conflicting conclusions. Studies of PSRO's found they had little impact on the utilization of resources by Medicare patients.²⁵ In contrast, two studies of the CHAP program in the California Medi-Cal program found that utilization review reduced hospital use by as much as 10–15 percent.²⁶ Other studies of hospital inpatient utilization review programs have found that utilization review reduced admissions and inpatient days by 10–20 percent and achieved substantial cost savings.²⁷ These studies have been criticized, however, for their lack of controls over other factors that may have influenced the observed changes in utilization.²⁸

A more rigorous study of 1984–86 insurer claims data on 223 insured groups by Wickizer, Wheeler, and Feldstein found that utilization review had a significant effect on both the utilization of hospitals and the expenditures, even after accounting for a large number of other factors that may have affected utilization rates. The study controlled for differences in case mix, characteristics of beneficiaries, and features of benefit plans and found that utilization review reduced hospital admissions by 13 percent, inpatient hospital days by 11 percent, expenditures for routine hospital inpatient services by 7 percent, for hospital ancillary services by 9 percent, and total medical expenditures by 6 percent.²⁹

In a patient population characterized by high rates of hospital utilization before the review program was initiated, inpatient days and hospital expenditures were reduced more substantially. Utilization management efforts consequently may have their most dramatic effect on patients with higher-than-average prior utilization rates. This finding is consistent with an earlier study of the mental health services provided under the civilian health and medical program of the uniformed services (CHAMPUS).³⁰ Wickizer and his colleagues concluded that "these findings suggest that hospital utilization review programs can reduce utilization and expenditures and generate cost savings, thereby helping to improve the efficiency of medical care resources consumption."³¹ However, they found evidence of only a one-time saving at the point of adopting utilization review procedures and concluded that utilization did not affect the rate of growth in costs after that.

The Institute of Medicine report states that requests for services are infrequently denied, which suggests that savings produced by utilization review programs may stem not from denying coverage or avoiding hospitalization for care deemed inappropriate, but perhaps from an indirect sentinel effect. That is, physicians may be less likely to recommend specialists' care or hospitalization in borderline cases if they know that their decisions will be reviewed.³²

Gains in restrained spending and reduced utilization do not come without a cost, however. A large number of physicians report that utilization review is the most intrusive factor in their clinical decision making.³³ Many physicians are unhappy with having their clinical decisions subject to veto by persons with lower professional qualifications and believe that only physicians should be permitted to conduct reviews. Moreover, some question the ability of reviewers to make decisions about the appropriateness or necessity of a service while lacking full information about a patient. Finally, costs to insurers and other payers are shifted, to some extent at least, to physicians. An AMA survey of physicians found that, on average, physicians spent 2 hours per week and their staff 5.4 hours per week dealing with utilization review, and that they had contact with about four different utilization review organizations per week.³⁴ A survey by the American Hospital Association found that, on average, hospitals deal with 38 separate utilization review organizations and sometimes more than 100. Because utilization review procedures are not standardized, hospital providers believe that the multiplicity of reviewers and review procedures creates unwanted complexity.³⁵

More important, the impact of utilization review programs on the quality of care is undocumented. As Tischler con-

cludes, "The appropriateness, adequacy, or effectiveness of the care patients receive is not analyzed. Evidence of impact of utilization management on their important dimensions of the quality of care is virtually nonexistent."³⁶ With respect to concurrent review, Melnick and Lyter write that "the pressure and harassment associated with concurrent review may tempt some physicians to cut corners and to reduce patients' hospital stays by providing less comprehensive treatment. In this way, they can limit the financial jeopardy and psychological harassment imposed by third and fourth parties. In other words, getting patients out may become more important than getting patients well."³⁷

Utilization Review Programs in State Prison Systems

Utilization review programs of varying scope have been established in several prison systems. Some of the variations characteristic of these programs, and their possible effectiveness, are evident in a comparison of utilization review programs in Georgia, North Carolina, and Florida.

Prisoner Fees for Health Care Services

Co-payment for health care in prison—or, really, fees for services—has been instituted in a few States primarily as a means of reducing utilization and not of raising revenues. Without disincentives for overutilizing the health care services in prisons, prisoners may be using health services much more frequently than is necessary.

In the free community, consumers who have to pay for their health care with out-of-pocket funds are less likely, on average, to use services as often as those with full-coverage insurance policies. The Health Insurance Experiment conducted by the Rand Corporation in the 1970's found a significant effect between the size of the copayment and the total expenditure for health care. For example, consumers with a large deductible—up to \$1,000 (in 1970's dollars)—reduced total spending for health care by 31 percent, compared with a plan with full coverage.⁵¹

The State of Nevada introduced a copayment law in 1981. (See page 55.) This law was enacted for three main purposes: (1) to reduce the large number of medical visits to providers that were perceived as unnecessary, (2) to hold inmates partly responsible for their own health care expenses, and (3) to provide a revenue source to address increasing general fund costs for inmate medical care.⁵

Utilization Review: Georgia Department of Corrections

For the Georgia Department of Corrections' Augusta Correctional and Medical Institution (ACMI), a contractor has developed and carries out a utilization review program aiming to control costs of outside hospital care and to reduce unnecessary surgical procedures. As discussed in chapter 3, ACMI is a 135-bed care facility that serves as the main center for coordinating delivery of secondary and tertiary care to prisoners referred from all prisons in the State, and it also has two surgical suites, although tertiary-level procedures are done at the Humana Hospital. ACMI is managed and staffed by a private contracting firm (currently, Correctional Medical Services, or CMS).

The utilization review program developed by CMS for ACMI went into effect in the summer of 1992.³⁸ Its purpose is to control the cost of outside hospital care by eliminating medically unnecessary hospital admissions and reducing unnecessary hospital stays. In addition, the review procedure aims to eliminate unnecessary surgical procedures, either at ACMI or in outside hospitals. The program's principal features are preauthorization requirements, concurrent review and authorization of ongoing hospital stays, discharge planning and case management to allow transfer of the hospital patients to ACMI or another facility at the earliest possible opportunity, and retrospective review of selected cases.

Preauthorization

In cases where prisoners do not require urgent or emergency admissions to hospitals but outside hospitalization is requested by an ACMI physician, all requests must be reviewed and authorized prior to transfer. (Eligible cases are defined as those in which hospital admissions are not required within 24 hours, Monday through Friday.) The physician requesting transfer to a community hospital is required first to notify the utilization manager, located at CMS headquarters in St. Louis. A utilization review nurse then reviews and screens the proposed admission using standardized InterQual admission criteria and knowledge of ACMI's capabilities. If reasonable admission criteria are not met, the case is referred to the ACMI medical director or to a member of the CMS physician review panel for consideration.

Table 4.2

Procedures Requiring Prior Approval: Georgia's Department of Corrections Utilization Review Policy

The following surgical and nonsurgical procedures require approval before the procedure is scheduled, if the procedure is considered nonurgent

Arthroscopy
Breast BX
Breast Surgery/Mastectomy
Bronchoscopy
Cardiac Arteriography
Carpal Tunnel Decompression or Ligament Release/Tarsal Tunnel
Cataract Removal
Cerebrovascular Arterial Studies
Cholecystectomy
Colonoscopy
Coronary Bypass
Dilation and Curettage
Doppler Studies
Echocardiography
Esophagoscopy
Foot Surgery/Bunionectomy
Gastroscopy
Fem-Pop Bypass
Hemorrhoidectomy
Herniorrhaphy
Hysterectomy
Laparoscopy
Laryngoscopy
Lumbar Disc
Meniscectomy
MRI (Magnetic Resonance Imaging)
Muscle Resections
Myringotomy with or without Tubes
Nasal Surgery
Pacemaker Implant
Prostatectomy
Rhinoplasty
Sigmoidoscopy
Submucosal Resection
Temporomandibular Joint Surgery
Tonsillectomy and/or Adenoidectomy
Tympanoplasty
Varicose Veins

Source: CMS Utilization Review Program for the Georgia Department of Corrections.³⁹

If patients at ACMI are being referred for elective medical or surgical procedures, either in ACMI or in nearby community hospitals, preauthorization is required. To guide decision making, CMS maintains a list of 39 common medical and surgical procedures that often are provided unnecessarily (see table 4.2). Any requests for these listed procedures must be preauthorized by the utilization manager at CMS headquarters. If one of these listed procedures is requested by a physician, the utilization review nurse reviews and screens the request using the standard indications. A member of the CMS physician review panel is selected and holds a conference telephone call with the requesting physician. The particulars of the case are discussed and a recommendation is made by the reviewing physician. If the reviewing physician does not concur with the request for the medical or surgical procedure, the case is deferred for additional medical treatment with the concurrence of both physicians. If the requesting and reviewing physicians cannot reach an agreement, the case can be assigned to another physician reviewer for a second review.

Concurrent Review

Concurrent review procedures have been devised to ensure that outside hospitalization is medically necessary and cannot be handled at ACMI, and to determine the earliest possible time for discharge and return to ACMI. All patients hospitalized in the Augusta community hospitals are subject to concurrent review by CMS utilization management. This procedure is triggered by a notification from ACMI officials to CMS utilization management officers that an admission to an outside hospital, whether preauthorized or not, has taken place. The CMS utilization review nurse contacts the attending physician within 24 hours to learn of the patient's condition, treatment plan, and expected discharge. The utilization review nurse may contact other relevant parties as well. Based on ACMI capabilities at the time and medical criteria, continued stay may be approved, in which case the average length of stay is indicated and a date for the next review is signed. In the event that continued stay is not approved, the case is referred to the ACMI medical director for consideration. Other reviewing physicians may be included. If ACMI is able to care for the patient, a request is made to the attending physician to discharge the patient and return him or her to ACMI. If the attending or treating physician will not release the patient after such a request, the medical director may authorize a denial of payment. The utilization review nurse sends a written notice to the physician and appropriate hospital departments. These denials of payment can be appealed, following a specified procedure established by CMS and the Georgia Department of Corrections.

Retrospective Review

In certain types of cases—principally those involving high costs or denials of requests for continued stay in hospitals—reviews of the medical record may be required. CMS requests that the medical record be sent to the utilization management officer at CMS headquarters for nurse and physician review; in cases where medical records cannot be sent from the hospital, the utilization review nurse at ACMI will travel to the hospital and review it on-site.

Monitoring Compliance with Utilization Review Requirements

To determine whether physicians are complying with the utilization review requirements at ACMI, CMS compares medical claims processed through ACMI with preauthorization and concurrent review information. Admissions that were not given preauthorization or stays not reviewed for concurrent stay approval are flagged, and the Georgia Department of Corrections is notified periodically. Once per quarter, CMS reviews all data, evaluates the impact of utilization review, and assesses the need for expansion of utilization review requirements to other areas of service.

Utilization Review: North Carolina Department of Correction

In March 1993, the North Carolina Department of Correction established a utilization review program to reduce spending for hospitalization in free-world hospitals. Prior to the program, the department had no control over the cost of hospitalization in these outside hospitals or on the length of time the prisoners stayed in them. To gain control, the department established in central headquarters a utilization review nurse/coordinator and developed preadmission certification procedures.⁴⁰

Before the utilization review program was established, physicians working at local prisons made referrals of inmates to local hospitals when they thought these were necessary. Now, physicians put in a request for hospitalization to the prison systems' medical director, who reviews the request. The medical director may ask for additional information—part of the medical record or even the patient's entire medical record—or for additional x-rays or other diagnostic tests. In some instances, the medical director requests a second opinion. Based on the information given to him or her, the director approves the request for outside hospitalization or denies it. If approved, the inmate is transferred and admitted to the hospital. Prior to transfer to the hospital, however, the utilization review nurse/coordinator speaks to the hospital liaison officer and establishes an approved length of stay for the inmate. Guidelines for length of stay by type of diagnosis and procedure are available in published sources, which are based on utilization data from community hospitals.⁴¹

Following hospitalization, the utilization review nurse/coordinator tracks the patient's progress. Toward the end of the expected length of stay, the nurse/coordinator discusses transfer to the North Carolina prison medical care facilities. In all but a few cases, the nurse/coordinator and the physician see eye-to-eye on the appropriate time to transfer the prisoner back to the North Carolina prison facilities for recuperation. The nurse/coordinator reports that in some instances "doctors don't like to give up responsibility for their patients," but the key, he believes, is to have them understand the types of services that the department provides, so that the physician is comfortable releasing the patient from his or her care.⁴² Most of the physicians who care for prisoners in outside hospitals are aware of utilization review and have experience with it through HMO's.

The key to this strategy is the capacity of North Carolina's prison inpatient facilities. The McCain Correctional Hospital is a 96-bed prison facility for minimum-security inmates, having 7 licensed acute-care beds, 38 licensed skilled nursing facility beds, and a geriatric care unit.⁴³ At the Central Prison in Raleigh, there exists a second prison hospital for medium- and maximum-security prisoners, which has 90 acute-care beds for medical/surgical patients and 144 acute-care beds for psychiatric patients. The latter is a high-skilled nursing facility in which patients can be stabilized and can recuperate following surgery, and it has two operating rooms for surgeries.⁴⁴ In addition, the North Carolina Department operates an infirmary for females at the North Carolina Correctional Institution for Women. This is a 24-bed facility, which can provide IV and stabilizing patient care. There is also an infirmary at the Piedmont Correctional Institution, a medium-security facility that also serves as a reception and diagnostic center.

The utilization review nurse/coordinator stops tracking cases upon readmission to the Department of Correction. Although a heightened review of patients brought back into the department may be beneficial, the department is focusing its resources on the utilization of outside hospital resources, because they are so expensive and because spending for prison hospitals is relatively fixed.

North Carolina's system currently supports only one utilization review position. The utilization review nurse/coordinator reports that a more decentralized system, similar to Florida's, where a utilization review coordinator works more closely with local hospitals, would be helpful.⁴⁵ Such decentralized utilization review is probably even more critical in States with larger numbers of prisoners transferred to outside hospitals for care and in States where prisons are more geographically dispersed.

The North Carolina utilization review program operates without a computerized information system. All tracking is done by telephone and by paper files. With computerized information on utilization of outside health care, the Health Services Division could evaluate its health services system better and could provide data to justify requests for budgets.⁴⁶ Developing a computerized network, with terminals at facilities and the central office, would facilitate the tracking of hospitalized inmates and reduce the inquiries to the utilization review coordinator to learn of the patient's status, the expected time of transfer back to the facility, and so on. In addition, the department would be able to conduct studies of utilization by region and by facility. By examining variations from facility to facility, by type of procedure or reason of hospitalization, the department would acquire a more powerful means of managing the utilization of costly hospital resources.

Utilization Review: Florida Department of Corrections

In December 1991 the Florida Department of Corrections' Office of Health Services put into effect a utilization management program as part of its broader effort, begun in 1990, to restructure the health care delivery system along the lines of a staff-model HMO. Important features of this managed care system, which was largely in place by the end of 1992, include a network of providers who offer discounts; consolidation of cases in regions where discounted providers can serve particular types of patients at lower cost; review procedures for monitoring and assessing in an ongoing fashion the delivery of care and its quality; preventive care; and utilization review. Utilization review, considered a component of the department's quality management program, "is a process to provide a mechanism which monitors the utilization of health care resources while assuring necessary services are provided in a clinically appropriate environment."⁴⁷ Utilization management procedures are targeted principally at management of services provided by outside providers.

The utilization management and review program has a dual purpose. First, it aims to "maintain quality health care services while identifying and addressing excessive or unnecessary use of resources as well as unnecessary or invalid restrictions in the use of resources." Because informed decision making in managing health care resources depends on the collection of relevant data, the second purpose of the utilization management and review program is to "maintain a management information system which provides a valid basis for administrative decision making."⁴⁸ As discussed in chapter 6, the department has developed a management information system that supports not only its case-level utilization review purposes but also its efforts to monitor the overall delivery of services.

Prospective Case Management

The department conducts a variety of prospective review procedures, all of which are defined as "case management," to regulate the services provided to individual patients. Such review procedures include those for preadmission authorization to approve scheduled health care services prior to their being provided, postadmission authorization to approve unscheduled health care services after they occur, and continued stay management and review to ensure that the levels of care and intensity of services are compatible with the patient's needs during the course of receiving care. Review is conducted not by a single central office staff but by officials in five regional headquarters. The precise procedures by which these reviews are carried out is subject to some systematic variation among the department's five regions. In general, however, the procedures are conducted as described below.

When any outside hospital services, either inpatient or outpatient, are sought, prior authorization is required. Officials at the prison in which the patient is located initiate the review by submitting a form to the regional nurse/consultant—the case manager—who is assigned to the utilization management and review program. This form documents both the service to be provided and the proposed level of care, as well as the most cost-effective and clinically appropriate setting. The case manager consults written guidelines for assessing the severity of illness and screening criteria for surgical procedures and levels of care. If the request is approved according to these objective criteria, the case manager develops a "case management plan" that establishes the critical dates, schedules, and preadmission requirements; coordinates the patient's transfer with the security staff; and reaches closure on any unresolved issues prior to admission. Upon confirmation of the patient's admission to the hospital, the case manager assigns an expected length of stay, the anticipated "patient status contact" schedule, and a proposed discharge plan.

If the patient has been hospitalized following an unscheduled admission or has been taken for an unscheduled outpatient visit, the same review process is conducted. In both instances—scheduled and unscheduled admissions—continued stay reviews are made, also employing objective criteria.

If a request cannot be justified by the case manager, either for preadmission approval or continued stay services, the case is referred to the regional health services director for consideration. The determination by the regional director, a physician, reflects "the art of medicine versus the scientific approach." According to the procedures manual, "(It) does not however negate the department's standard of providing for a patient's need versus a patient's desire for services. The intent in providing a procedure for physicians is to

provide an audit trail by which it can be demonstrated that all cases are given individual consideration when indicated and not limited to a 'medicine by cookbook' system."⁴⁹

Appropriateness of Care Review

The department also has established procedures for reviewing cases in which there is a known or suspected "quality of care" issue, with inappropriate services provided to inmates by outside providers or practitioners. Such cases are referred to the chief health officer or the regional health services director. If it is determined that the care provided was not medically necessary—more than the patient should have appropriately been given—the chief health officer or the regional health service director may authorize a special review by the office responsible for managing contracts and claims with outside providers.

The Impact of Utilization Management Procedures

The department believes that the restructuring of the Office of Health Services has slowed the growth in spending for health care costs, especially for outside hospitalization. In 1990, before the implementation of the utilization management program, the department averaged 290 hospital inpatient days per 1,000 inmates. In 1992-93, the use rate declined to 188.2 days. The rate of emergency room visits declined from 91.2 visits per 1,000 in 1990 to 61.7 per 1,000 in 1992-93. The department asserts that this lower utilization has reduced the department's expenditures for outside hospitals from \$11.9 million in 1991 to a projected \$11.3 million in 1992-1993, despite an increase of about 20 percent in the average daily population.⁵⁰ It is possible, however, that the reduced number of hospital days during this period declined for reasons other than the implementation of utilization review procedures. Because emergency room visits are not subject to preadmission certification, the decline in these rates may reflect other changes in practice. Moreover, average lengths of stay have been falling in many hospitals across the country. Generally, it is difficult to estimate precisely and isolate the effects of utilization review procedures from other determinants of hospital use.

The Nevada Courts have reviewed copayment policies and the appropriateness of certain related procedures. In one case, *Shapley v. Nevada Board of State Prison Commissioners* (1985), the court ruled that issuance of a charge for medical services under the policies stipulated in Nevada was not grounds for a claim of medical indifference. The plaintiff in this suit was not denied medical treatment for the inability to pay the \$3.00, nor was medical care denied to other inmates for inability to pay. In a second case, *Scott v. Angelone* (1991), the prisoner alleged that he had been denied due process when his account was frozen and money for a copayment deducted. In this case, the prisoner was awarded his \$20 back, as it was found that his treatment had been followup treatment and not chargeable under the copayment policy. In conjunction with this ruling, however, the judge found that the original claim (of the inmate being denied due process) was unfounded. The judge cited the fact that the legislature gave the department the right to charge a copayment fee and that a deprivation hearing was not necessary, because "no charge was made until after treatment was provided and authorized by the inmate (by signing the log book)."⁵⁸ In the view of litigators at the ACLU's National

Prison Project, these rulings are "inconclusive on the fundamental Eighth Amendment question." Citing cases involving copayment policies in local jails, Lopez and Chayriques argue that the legality of such policies is not fully established, because "while these practices may seem like beneficial cost-saving measures adopted by prison health care administrators, upon closer examination they interfere with access to health care services."⁵⁹

Beyond the legality of copayment policies is a larger question: Are they appropriate? If the purpose of requiring copayment is to reduce marginally necessary or elective treatment, should the policies be more specifically targeted to those? The risk of an across-the-board copayment requirement is that prisoners may be dissuaded from seeking necessary treatment—or from seeking treatment early enough to avert higher-cost treatments later. If copayment policies do indeed result in more expensive treatment because earlier attention was not sought, they may be cost-ineffective.

Copayment in Nevada

Copayment is collected in Nevada for general medical services. Inmates are charged for initial walk-in appointments. Followups, referrals, protocols, and emergencies are "nonchargeable." A \$4 copayment is charged to an inmate seeking care by institutional physicians, physician's extenders (physician assistants or nurse practitioners), dentists, optometrists, or psychiatrists for examination or treatment. Fees incurred for injuries or ailments associated with working while in prison are covered by the State workmen's compensation program. After health care services have been provided, charges are posted to the inmate's account and are reflected in monthly statements sent to the inmate. If an inmate does not have sufficient funds to cover the charges, his or her account is frozen until enough funds are submitted to cover the charge. The collection rate is approximately 52 percent.⁵³

The main saving has resulted from reduced demand for health care services. During fiscal years 1989, 1990, and 1991 the State of Nevada reported an average of 4.39 visits per inmate per year at maximum-security prisons. The department-wide average was 5.99 visits per inmate per year. This represents a substantial reduction over the utilization rate when the program began: a 76 percent decrease at the maximum-security level and a 50 percent decrease department-wide.⁵⁴

Although raising revenues was not the main reason for introducing copayment, the fees do generate money. During fiscal years 1982 and 1983, the department collected \$77,718 and \$89,043, respectively, from copayments. These sums represented approximately 7 percent of the medical operating expenditures. Over the next 10 years, the average collected per annum was \$11,088, or approximately .3 percent of the medical operating budget.⁵⁵ On a smaller scale, the county jail in Mobile, Alabama, generated approximately \$4,800 during the course of one year.⁵⁶

Offsetting these revenues are the costs of collecting them. In Nevada, these are not insignificant, although the department's accounting system does not capture them. As one correctional administrator has written:

Costs involved in assessment of medical copayment charges are the staff time, institutional, administrative and Inmate Services, inconsistencies involved in assessing charges, and then time involved providing due process to queries regarding validity of charges. Given the small volume of revenue collected, an inordinate amount of staff time is involved in collecting the copayment charges. This involves infirmary staff and provider time in completing forms and responding to queries, administration staff time reviewing logs, handling queries, and Inmate Services accounting staff posting the charges, freezing accounts, and processing queries. Inconsistencies in terms of assessing charges across the board increase the number of queries with respect to the validity of the charge and delay collection of copayment charges. These inconsistencies exist in the form of incomplete visit logs, staff favoritism, incorrect and illegible information, all of which delay the process and sometimes permanently prevent the collection of charges.⁵⁷

Cost-Effective Drug Prescription Practices

Gaining control over the prescription of drugs for inpatients is extremely important from a cost-control point of view, especially where incentives for cost-effectiveness are limited. Prior to the practice of paying hospitals fixed amounts for inpatient hospitalization, pharmacies were viewed as highly profitable centers in hospitals, with markups for oral medications and intravenous medications ranging from 300 to 350 percent. The profits generated by the pharmacy, in addition to those generated by the radiology department and laboratories, were used to cover the costs of less profitable

services such as nursing, central supplies, housekeeping, and dietary provisions. Since the initiation of fixed payments, these departments have been able to generate profits only to the extent that they market their services to outpatients.

The establishment of cost-effective drug prescription practices is therefore an important element in correctional cost-containment efforts. As discussed in chapter 3, significant savings can be obtained by purchasing pharmaceutical supplies at discounts. Substantial savings also can be made by changing physicians' choice of medications. This can be done by educating physicians to be cost-conscious when deciding which medications to prescribe to prisoners. A

more direct means of controlling the choice of drugs, however, is to establish lists of approved drugs—"formularies."

Doctors have available to them more than 4,500 different types of drugs for treating patients. Many of these drugs have similar effects and can be used for the same purposes but may vary dramatically in their cost. Health care organizations that seek to control their costs establish pharmacy and therapeutics committees to review available drugs and to designate those drugs they deem to be either most cost-effective or most useful, and then place them on a list of approved drugs. Prescribing physicians are encouraged (and often mandated) to limit their choices to drugs on these formularies. Some health care providers, HMO's, for example, in addition to having an established formulary, have a policy of automatically substituting a listed drug for any drug type prescribed to an outpatient by a physician. Statewide department of correction formularies exist in many States. In Iowa, at least, physicians reportedly stick to the formulary.⁶⁰ A formulary review committee holds quarterly meetings to update or modify the list. In both Georgia and Iowa, the formulary exists on paper, but correctional health administrators are exploring pharmacy information systems to support prescription practices, to eliminate duplication, and to help tighten up operations.⁶¹

Formularies may be most useful in outpatient settings, if only because it may be more difficult to have outside hospitals agree to limit prescriptions to the department of correction formulary. If community hospitals agree to charge prison systems a reduced per diem rate, efforts to have physicians comply with department of correction formularies may be redundant, because hospitals that agree to per diem charges already may have sufficient incentives to hold costs down.

An alternative to creating a formulary is buying the expertise from a private management firm. In recent years, the desire to control pharmaceutical costs has created a market for firms devoted to managing pharmaceutical benefits for insurance companies, large corporations, and labor unions. These firms essentially are selling the expertise that went into constructing and updating a formulary. These firms substitute generic drugs for brand-name drugs whenever possible, and if generic drugs are not available, they use their buying power to negotiate good prices, especially when imitative drugs are available as substitutes.⁶²

The decision to substitute generics for brand-name drugs is relatively easy. In choosing between two different types of drugs, however, the choices are often harder. Studies comparing the effectiveness and cost-effectiveness of alternative types of medication are reasonably few. Where studies do not exist, pharmacy and therapeutics committees make decisions based on clinical judgment.

Identifying prisoners who need medications and encouraging them to take them may be as important as purchasing drugs at attractive prices. Diabetes and hypertension, for example, have the potential to cause major hospital expenses when these conditions are not properly treated. Prison systems have weak incentives to find and treat these conditions unless a prisoner actively seeks treatment. Studies in the free community of California Medicaid patients have found that nearly 86 percent of new antihypertensive drug therapy patients interrupted or discontinued purchasing any form of antihypertensive medication during their first year of treatment. The study was limited to patients over the age of 40 who survived for the first year after treatment. They could get their medication with only a \$1 copayment. These patients consumed an additional \$873 per patient in health care during the first year, not counting a reduction in prescription drug cost of \$281. Increased costs were due primarily to an increased hospital expenditure of \$637.⁶³

Which Approaches To Adopt?

As in the previous chapter, the various managed care techniques described here are offered as possibilities. Evaluating whether to implement one or more requires making a judgment about their likely usefulness in producing a more cost-effective match between available resources and successful performance. Unlike making a decision to buy from one or another vendor, however, implementing managed care methods for controlling service utilization changes the organizational configuration of health care delivery in prisons in ways that might not be foreseen easily. Staff and prisoners might develop ways of accommodating themselves to new requirements without really changing their behaviors. Or worse, perverse results might ensue, making the health care system less cost-effective. Consequently, monitoring operations after making changes is important.

For managers to monitor their ongoing operations and to learn the results of implementing one or another managed care technique in the hope of reducing costs while preserving or raising quality of care, information-collection procedures need to be well developed. As discussed in chapter 6, these management information systems need to integrate information about resource utilization, cost, and the demand for services.

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Chapter 5

Contracting for Comprehensive Health Care

One means of managing prison health care and, by extension, health care spending is to contract with a private firm and charge it with the task. This may create the conditions supportive of effective management of health care spending: fixing a global budget that has to be adhered to; putting managers at financial risk for their performance; and enabling managers to staff the prison health care system appropriately, unencumbered by submarket salary levels and inflexible work rules.

Contracting in corrections has a long history. Most jurisdictions contract for specific services, often by specific individuals. That is, they may purchase the ongoing services of individual physicians, psychologists, pharmacists, dentists, labs, radiology departments, emergency transportation, hospital care, and various kinds of specialty care. Typically this is done not to control the cost of health care but to obtain a service that is otherwise unavailable in prisons or is not needed frequently enough to justify hiring staff. However, a strategy of widespread contracting, and especially competitive bidding for these contracts, can be an important method of cost containment by public managers. A health care administrator in the Illinois Department of Corrections reported that contracting and competitive bidding have been the principal cost control strategies that they rely upon. The department has many different contracts, with a variety of providers for different services, and contractors are "getting pretty hungry for work out there."¹ In Illinois, health care administrators are purchasing discrete services but not the management of the entire health care service. Some prisons, and a few State prison systems, do have experience with contracting for comprehensive health care services, however. There is also substantial experience in the free community with contracting for management services in public hospitals under conditions that resemble prison health service systems.

This chapter explores the emerging practice of contracting for comprehensive health care services in prisons or in entire prison systems. It discusses:

- The development of comprehensive contracting for prison health care.
- The variation in the scope of contracts.
- Risk-sharing arrangements.
- Liability issues.
- The reported benefits and risks of such contracts.
- Quality assurance and monitoring.
- Costs and savings.
- The experience of contracting for hospital management in the free community, and research on the benefits that contract management actually bring.
- "Full-line" and specialized management contracting arrangements.
- The importance of monitoring performance.

The Emergence of Management Contracts for Correctional Health Service

Many States and local governments turned to contracting because their ability to deliver health care services was exceedingly weak. One of the earliest local contracting relationships was struck up between the New York City Department of Correction and Montefiore Hospital in 1973 because it was thought, according to two observers, that "one

cause of the riots of 1970 [in the New York City jail system] was the disastrous state of prison health care."² In State prison systems, the common pattern was a Federal court finding of inadequate health care, court orders to remedy substandard conditions, and a turn to contracting to remedy the deficiencies. In 1978 the first contract to manage and operate an entire prison's health care delivery system was signed in Delaware, under pressure from the Federal courts. In the subsequent year, the Alabama Department of Corrections signed a contract for the management and operation of its health care delivery system. By 1985 three States relied on management contracts for all or most of their health care services; Arkansas contracted for its medical services but not for dental and mental health; and in five more States some institutions were under contract.³ By 1989 Alabama, Maryland, Delaware, and Kansas had contractors provide all health services in all prisons. In a handful of other States—Illinois, New Mexico, Georgia, Pennsylvania, and South Carolina—a number of prisons were contracting for some health services.⁴ Most other States relied on contracting for more discrete services. A national survey sponsored by the National Institute of Corrections found that the most commonly contracted services were for individual physicians (76 percent of the surveyed agencies), general health services (71 percent), and mental health care (67 percent).⁵ Unfortunately, this survey did not document the range in contracting services in each jurisdiction, but the majority of all such contracts at that time were certainly limited to discrete facilities, rather than entire prison systems, and limited even further to specific types of services (for example, medical, dental, or psychiatric services).

In some jurisdictions, contracting for health services is infeasible. For example, because of the presence of a strong labor union in Hawaii, the department cannot easily contract for comprehensive health care services.⁶ In Rhode Island, the department's contractual agreement with the public employees' union includes a "no contracting" provision.⁷

The most common reason for contracting has been to obtain needed health care staff. As late as 1978, correctional officers and medical technicians in many States were the primary health care providers for prisoners. They administered medications, screened prisoners for doctors' visits, and provided emergency medical care. Largely in response to litigation in Federal court, correctional departments sought out health care professionals. However, physicians, nurses, and other health care professionals have been in short supply, especially in the rural areas in which many prisons are located. Finding competent staff was obstructed also by a mismatch

between government salary schedules and market rates for health care professionals. In the Bureau of Prisons in the late 1980's, for example, the highest annual salary that could be paid to a staff physician was \$75,000. Because physicians were able to obtain higher salaries elsewhere, and because working in prisons is unappealing to many, several correction departments have been unable to hire sufficient staff.

The ability to overcome the constraints of State personnel regulations is among the most frequently cited benefits of contracting. In the 1984 NIC survey, public correctional officials listed as the advantages of contracting in general (not limited to health care services): "flexibility in staffing," "professional service," "availability of staff," "provision of 24-hour coverage," and "wide range of expertise."⁸

Scope of Contract

The scope of services performed by contractors varies along three principal dimensions. First, contractors obligate themselves to perform only specific clinical services or, at the other end, all health care services. For example, contractors may provide only medical services or dental services or mental health services or other ancillary services—such as laboratory, radiology, pharmacy. Second, contractors may be engaged to provide personal services only, provided, for example, by physicians, psychologists, dentists, and/or medical technicians, or they may assume responsibility for management functions as well. In free community hospitals, some firms provide only management services under contract, and not staff. In the prison health care industry, contractors that provide management services typically provide other staff as well.

Third, firms may be contracted to provide services to one, several, or all prisons in a State's system. In general, the opportunity to achieve cost savings by means of managed care strategies probably increases as the scope of services and serviced population increase. That is, if contractors are given the responsibility for managing as well as providing personnel and are given a broad range of services to be responsible for as well as a number of institutions, their ability to organize health care resources more cost-effectively is enhanced. As discussed below, the Georgia Department of Corrections concluded that the cost savings resulting from comprehensive health care contracts in one prison were probably insignificant, but that savings would probably accrue if health care in all the State's prisons was brought under a single contract.

Sharing Financial Risk

Contractual arrangements most likely to encourage effective cost control are probably those that establish a price for delivering health care and put the contractor at risk of losing money if it fails to keep costs within budget. Cost-reimbursement contracts typically create fewer incentives to restrain spending. Moreover, incentives to contain costs are probably greater if the contractor is obliged to cover the cost not only of primary health care but also of secondary and tertiary care purchased from outside consultants and hospitals.

Asking a contractor to provide health care at a fixed price, given the prospects of catastrophic illness or injury or 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. (Arkansas has done so in its recent contract.) The contractor's options in such a case are either to purchase an insurance policy 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—the State—to insure the contractor against such events. One method is to fix a specified cap on the contractor's liability. The State of Tennessee, for example, requires the contractor to pay for all treatments but limits liability to \$25,000 per inmate, or \$50,000 for incidents involving multiple inmates. Costs exceeding those 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 is paid for by the contractor, however.⁹ Other States have variations on this theme, setting liability caps at different levels, with different types of exclusions for very expensive treatments. For example, the contract for comprehensive health care in the Georgia prisons includes a graduated cost-sharing arrangement, whereby the department will pick up a progressively larger share of the cost of expensive treatments exceeding \$25,000.¹⁰

In 1993 Tennessee signed a contract including an interesting contractual structure that created incentives both to control costs and to ensure an adequate level of service. Half of the contract is essentially of the cost-plus-fixed-fee variety, and the other 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 the contractor 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 in expensive cases, as discussed earlier.¹¹ 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."¹² Prior to signing the contract, for example, the State spent about \$90,000 a year for drugs at the women's prison. 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."¹³ Similarly, the cost of medical services at the women's prison dropped from an average of \$90,000 per month to \$62,000 per month following the beginning of the contract.

Certain types of compensation arrangements may expose the government to unanticipated risks. For example, in one of the early contracts for private imprisonment services, the Correctional Corporation of America contracted with Hamilton County, Tennessee, to operate its 412-bed penal farm at Chattanooga. The reimbursement scheme was fixed at \$21 per day for each inmate in custody. However, a stern drunk-driving policy resulted in far more persons being sent to the penal farm than the county had anticipated, which resulted in the county's paying far more than it had budgeted for contract operations. In subsequent years, contract provisions were changed so that the servicing of additional prisoners was compensated at an estimated *marginal* cost, as opposed to an *average* per diem cost.¹⁴

The Delaware contract for health care services includes a similar provision, with both fixed and marginal rates of compensation. The base contract price per month provides compensation to the contractor for all services delivered to a specified number of inmates and then a marginal per diem price for services delivered to additional inmates. The marginal per diem cost is established by asking the contractor what the marginal cost of adding one inmate to the base amount would be. This per diem price is then fixed in the contract. If the population runs 10 percent above the specified base levels, the contractor and the State agree to renegotiate the compensation arrangement and the marginal costs.¹⁵

This is because marginal costs in correctional systems remain low, up to a certain-sized increase in population, and then jump up substantially as new staff are hired and facilities constructed.¹⁶

Liability

It is well established in law that governments retain legal liability for services rendered by contractors. The Federal government's liability for privately detained prisoners was affirmed in a case involving the death of an illegal immigrant trying to escape from a privately operated holding cell.¹⁷ 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.¹⁸ The U.S. Supreme Court reaffirmed this principle in *West v. Atkins*, 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." 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 function to respondent Atkins; and respondent voluntarily assumed that obligation by contract.

Because governments cannot shield themselves from liability for contractors' actions, governments should establish clear standards of care and should monitor contractors' performance.

Benefits of Contracting

A common report in interviews with correctional health care professionals is that contracting for management and operation has succeeded in raising the level of correctional health care. For example, the Tennessee women's prison kept failing a mock ACA audit of health care services until it contracted with a national firm to manage its health care. Within a few months of signing the contract, the actual ACA audit took place, the medical section of the facility scored a

99.6, and the institution earned accreditation.¹⁹ 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. Since then, health care in the State's prisons has improved dramatically.²⁰ In both Georgia and Delaware, the performance of the contractors has exceeded the requirements established by the States.²¹ In Arkansas, contracting was chosen as the means of bringing its health care system in compliance with the Federal court order.²²

Some State departments of corrections have relied on contractors for their expertise in recruiting staff professionals, consulting specialists, and other health care professionals. Contractors claim that they bring special expertise in recruiting health care professionals and rely upon a national network. Some contractors report that they recruit nurses in areas either with surpluses—in Canada, for instance—or that are economically depressed, where nurses' salaries are low. In the event of a crisis, the contractor is able to draw upon its own experts within its organization for short assignments.²³ Contractors may be more skilled at negotiating advantageous rates with hospitals.²⁴

Another perceived benefit of contracting for health care services is that contracting enables prison administrators to sharpen their focus on their core mission—secure corrections—and to delegate the day-to-day administration of ancillary services. As one Tennessee correctional official put it, contracting appealed to him because "all these problems of organizing health care become the contractor's problems."²⁵ By delegating responsibility for the production of the service to the contractor, the correctional official is able to focus entirely on the quality of the output of that service—health care delivered to inmates. Contracting is a common method of enhancing public managers' control, even though by doing so, public managers appear to be giving up control over the production of the service. "One of the most important managerial uses of a make-buy boundary is to protect an organization's ability to focus on what it needs to see clearly and ignore what it does not."²⁶ "In particular, most of the daily operational crises in a supplier's organization will be kept off the purchasing agency director's desk." As an Arkansas health services administrator says, "Delegating the production of health care services converts the department into a consumer of services, which creates an alliance between the department and the inmate in the health care relationship."²⁷

According to one correctional administrator, being at financial risk encourages good performance. If contractors are going to stay in business, they have to meet the needs as they arise. Employees of contractors have incentives and bonuses that make them "more productive and more caring." Contractors, he believes, provide a health care system that is "more professional" than employee-based systems.²⁸

Risks

Contracting for health services has its risks, some of which can be minimized. Contractors, by their insensitivity or, in the worst case, by going bankrupt, may burn bridges between the department and the community of outside health care providers. For example, in Arkansas the first contractor to deliver medical services to the State's prisons went bankrupt and left many outside providers holding unpaid bills. One way of minimizing this is for the department to pay bills for outside services directly, even though the services are requested and authorized by the contractor. This is Arkansas' current procedure and Tennessee's also.

An additional risk has to do with the reversibility of the contracting decision. The larger the contracting program, the less easily is the decision reversed. Even if the government retains its ownership of facilities and equipment, re-staffing in the event of contractor termination, or in the event that the agency simply wants to resume direct provision, may be difficult. An already-constrained public personnel pool will be even more limited, and there may be a long lag before new personnel can be recruited and trained.

Moreover, the more an agency relies on contracting for health care services, the greater the threat of disruptions in service by strikes and bankruptcies. When considering contracting, it is important to ask if a larger program can be sustained in the long run and if there will be a sufficient number of provider organizations to avoid the creation of contractor monopolies and a diminution of the benefits that flow from open-market competition. These risks can be minimized by contracts with a narrow scope of services, or for a limited number of prisons, but the gains accruing from such limitations may be offset by the decreased ability of the contractor to manage costs effectively.

Quality Assurance and Monitoring

The key elements of effective quality control in contractual health care 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, (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—not only those of JCAHO, but also of the ACA and NCCHC—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 on the side of the contracting agency. Whereas all health care delivery systems in correctional settings, whether contracted or provided directly, require effective monitoring, contracting requires that external monitoring procedures be established under the department's control, which adds a layer of supervision that does not typically exist when these services are provided directly by the department.

Concerns about quality of service are probably heightened when the services are to be delivered by for-profit contractors whose profits are at financial risk. In theory, at least, it is not in a contractor's long-run interest to attempt to drive the quality of service down in order to maximize short-run profits, because this strategy increases the risk of having the contract terminated or of losing the contract at the time of recompetition for it. However, a 1984 survey of contracting experiences in corrections (not limited to health care contracts) reported that the eight most common complaints by 161 respondents to the survey included difficulty in supervising others' employees; poor quality of service; nonprovision of the promised service; difficulty with bidding process; service not provided on time; difficulty in regulating service quality; having to take low bid and poor quality; and unsatisfactory payment arrangement.²⁹

To encourage compliance with specified performance standards, contractors frequently are required to post performance bonds. In lieu of a performance bond, Delaware includes in its contracts what it believes is a more effective incentive: provisions for liquidated damages. If staffing specified in the contract falls below a certain level, or if the contractor terminates service without sufficient notice, the contractor is given 30 days from the date of a notification to rectify the deficiency. If after 30 days the department is not satisfied that the contractor has resolved the deficiency, the contractor agrees to pay the department the sum of \$2,000 per calendar day for each day that the contractor fails to provide services that are acceptable to the department. The

contractor understands and agrees that this amount is to be paid as liquidated damages and not as a penalty. The department prefers this arrangement to reliance on a performance bond because of the difficulty in affixing actual damages. The contractor is not liable for liquidated damages when the failure to provide acceptable services arises as a result of any reason beyond its control, including strikes or other labor disputes, inmate disturbances, acts of God, or other similar causes beyond the reasonable control of either party.³⁰

Costs and Savings

The effect of contracting on spending, especially for comprehensive health care services, has not been evaluated systematically in any State. Such comparisons of the cost of public and private provision are exceedingly difficult, not only because of differences in accounting procedures used in public and private domains, but also because prison health care services are not commonly constituted as a complete "cost center" in correctional accounting. That is, the costs of services provided in connection with inmate health care are borne by a variety of accounts (for example, transportation and custody staff salaries), and even by other noncorrection agencies and accounts. For example, in many jurisdictions, expenditures for employee retirement benefits are paid not by the departments of corrections, but by separate accounts for government employee fringe benefits and retirement fund contributions.³¹ Lacking such comparative studies, however, some correctional officials believe that contracting for health care is more costly than direct provision. For example, one official identified both the profit earned by the contractor and the contractor's general and administrative overhead costs as expenses that the State would not have to pay if it provided the service directly, and he estimated that the difference between the cost of direct provision and provision by contractor equaled that amount.³²

These estimates should be read with caution, however. First, it is extremely difficult to identify the true cost 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 "other things being equal." That is, the cost of providing the same services directly would be x percent lower than the contractor's price, other things being equal. 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,

consequently, is between the cost and value of the contractor's services, and what the government agency would pay to deliver the service in the absence of contracting. Agency officials in some jurisdictions generally recognize this and choose what they perceive to be the higher costs of contracting precisely because they are unable to provide the services directly at acceptable levels.

Parallels in the Free Community: The Experience of Contracting for Hospital Management

The contract correctional health care industry emerged at a time when a similar industry was growing in the free community. Indeed, one of the largest private correctional health care firms—Correctional Medical Services—is a subsidiary of ARA Services, Inc., a firm providing contract management of hospital services with revenues exceeding \$4 billion a year.

In the wake of the creation of the Medicaid and Medicare programs in the mid-1960's, the private for-profit hospital grew at a fast pace. 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.³³ 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.³⁴

Subsequently, Congress decided to make this practice of revaluing assets illegal and moved toward creating more competitive market conditions in health services provision. Thus, in fiscal year 1984, the prospective payment system, and the Diagnostic Related Groups (DRG's) 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.

Arkansas: Contracting for Comprehensive Health Services

Since 1981, health care to all prisoners in the Arkansas prisons has been delivered under a single contract. Rather than negotiating a number of contracts for discrete health care services or for more regionalized health care delivery, the State has chosen a single comprehensive contract in the hope of providing an integrated health care delivery system. The contractor has responsibility for managing and delivering health care to prisoners, including outpatient and inpatient services, associated administrative services, and supplies to all prisoners, including pharmaceutical supplies. The contractor services all prisoners held in cell blocks by means of sick call and outpatient visits, those confined in small infirmaries at each of the prisons, and prisoners receiving inpatient care purchased from local hospitals. The contractor also provides care for prisoners housed in or passing through the 32-bed Diagnostic and Inpatient Care Facility. This facility, a skilled, nonacute care unit located at Pine Bluff, provides outpatient care, physical examinations for all new commitments to the department, pre- and postsurgical and recovery, convalescence, and chronic care. The contractor is responsible also for negotiating agreements and relationships with local hospitals to provide services that the contractor cannot provide directly. The only health care not managed or delivered by the contractor is for mental health care, which is provided directly by the department.

At present, the Arkansas Department of Correction (ADC) houses approximately 9,000 inmates in 13 prisons. In addition, the department manages 4 regional jails in the State. The contractor is not obliged to provide any services in one regional jail; in another, it is responsible for all care; in two others, the contractor is responsible only for on-site care. During fiscal year 1994, the department's total budget for health care was \$13.1 million for an estimated average daily population of 8,121 inmates. This amount represented approximately 17-20 percent of the department's total budget. The department spends approximately \$1,700-\$1,900 per inmate annually for health care.

The department first contracted for medical services in August 1981, because the level and quality of services being provided directly were not acceptable. At the time, the department was under a court order to remedy unconstitutional conditions of confinement, including inadequate health care. The department found it difficult to staff its prisons with health care workers partly because State personnel regulations were set at submarket rates and did not afford the department the flexibility it needed to attract medical staff to the prisons. There also existed a national shortage of nurses. At that time, the University of Arkansas Medical Center was having to recruit from England, Australia, and Canada. The department's ability to recruit health care personnel was also hindered by the low status conferred on prison health care and by the lack of support services afforded by the department. Once recruited, the department had a hard time keeping qualified staff, and turnover was high. The absence of stable and competent staff resulted in poor record-keeping practices, poor quality control, and excessive reliance on outside providers, including excessive use of hospitals. Other State agencies were not able to provide the service to the department. The department asked the University of Arkansas Medical Center to provide services to the prison system, but the university did not agree to do so.

To overcome these obstacles, the department chose to purchase a health care system in toto rather than to build it up piece by piece. Consequently, in 1981 a contract was signed with Health Management Associates (HMA). Initially, HMA had been requested to coordinate services provided by outside providers, but HMA saw that it could bid to provide for health care directly, augmented by outside providers. HMA held the contract until 1987 when it lost the bidding competition to PHP Healthcare Corporation.

The current contract specifies that the contractor "will provide a system of medical care services to inmates at the ADC through a staff of qualified medical, technical and support personnel." The contractor is required to provide all staff, but the department does not specify how the staff must be deployed. The contractor makes provision for the reasonable and necessary medical care and treatment of all inmates in the system, including, but not limited to, routine physical examinations, examination and treatment of inmates on sick call at regularly scheduled times at all facilities,

examination and treatment of inmates requiring emergency medical care or attendance of any acute or chronic illness condition, and the referral of inmates who in the judgment of an examining physician require specialized care by medical consultants or in a medical facility outside the correctional system. In addition, the contractor is obliged to implement and utilize an internal quality assurance and peer review program that monitors the day-to-day delivery of medical care and the professional conduct of the staff. The contract also sets requirements regarding speed of service, access to care, proper response to emergency conditions, and coordination among Arkansas Department of Correction's security and transportation staffs and the contractor's health care staff. The contractor is obliged to provide on-site specialty clinics in orthopedics, ENT, dermatology, internal medicine, cardiology, and ophthalmology/optometry, as well as a pharmacy program and all required staff.

Both the contractor and the health services division operate within a fixed annual global budget, but the contractor is not held to specified per-inmate expenditure caps. Instead, the contractor is able to organize its health care services as it sees fit, as long as it stays within the established budget and performs all the required functions adequately. The budget is established in the procurement process by means of offering assessments of what it will cost to provide a list of specified services to a specified number of inmates, at a per inmate/month rate. The Arkansas Department of Correction reviews the assumptions employed by the contractors to develop these estimates and chooses the winning bid on the basis of cost, strength of staff, and other aspects of the contracting firm. The contractor is then paid monthly, the amount based on the average daily population of prisoners multiplied by an established "inmate per month cost factor."

The department pays the bills for the provision of services by outside providers—specialists for ambulatory care, emergency room visits, hospitalization in an outside facility, renal care, or laboratory/diagnostics procedures performed in an outside health care facility. For these services, the department receives the bills, reviews the claims, sends them to contractors to verify that the services indicated were in fact received, and then pays the bills. Each month, the amount paid for these outside services is deducted from the contract amount, and the balance is reimbursed 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.

During the early 1980's, this reimbursement practice was not followed. Then, the contractor paid all bills directly. However, when the first contractor went bankrupt, many providers were left with unpaid accounts and thereafter refused to serve State prisoners. To protect its relationships with health care providers in the community, the Arkansas Department of Correction now assumes responsibility for paying those bills directly.

Through 1988, the contract limited the contractor's liability to \$35,000 per inmate annually. Expenditures in excess of that amount were the department's responsibility to pay. In 1991 the agency negotiated a contract that had no spending caps, and the contractor assumed responsibility for all health care costs. The State chose to do this because over a two-year period it accumulated \$1.5 million in spending for cases that exceeded the \$35,000 cap. To obtain this additional amount, the department had to go back to the legislature for a supplemental appropriation. Lacking an expenditure cap, the contractor is charging a higher amount to provide services to the State, but the increase in the contract amount was less than the \$1.5 million that the State had paid previously. In the face of worsening health conditions among inmates—that is, a higher prevalence of AIDS, cancers, and TB—the department chose to pay a slightly higher cost to the contractor to increase the certainty of its future expenditures rather than gamble on an uncertain overdraft amount.

Both the contractor and the department are now pursuing a number of cost-containment strategies, above and beyond contracting itself. Wherever possible, the contractor negotiates an advantageous rate of compensation from consultants and other outside providers. Some agree to accept Medicaid

rates, others agree to discount their usual fees or charges. A number have agreed to give 10-20 percent discounts in return for the prompt payment of bills. By instituting a speedy payment process, the department has become the best-paying organization in the State, settling within 14-30 days. These discounts for prompt payment have generated substantial savings to the department.

The contractor also has instituted a utilization management system to control the use of secondary care. In recent years, however, utilization management and review procedures have deteriorated, in part as a result of the stress experienced by expanding the health care system into newly constructed prisons. When new prisons were built, the contractor had to negotiate agreements with new local providers and, in some places, did not establish adequate review and certification procedures with these hospitals and doctors. The department therefore contracted with an external review organization to assess the contractor's utilization management and quality-assurance procedures, to recommend improvements, and to monitor the contractor's subsequent performance.

Correctional health care officials in Arkansas believe that it is unwise to specify too closely how the contractor will organize its delivery system to carry out its obligation. Consequently, the request for proposal specified in quite generic terms the general nature of the contractor's role, the services that must be provided, and the standards to be met. It left to the contractor the responsibility for deciding the most cost-effective way of delivering the service. In this way, the State corrections administrator is able to focus not on the nuts and bolts of delivering health care but on the nature and quality of the output—the medical and health care given to inmates. In this sense, the State becomes a consumer of health care services provided by the contractor, and the health services administrator says that the department is able to become an advocate for the inmates. Because the health care administrator seeks to have a health care system that is as independent an arm of corrections as possible, contracting for this service enhances this independence.

The department requires a number of quality-control procedures and has instituted a variety of ways of monitoring the quality of care directly. The contract requires that the contractor meet both ACA and NCCHC standards and that it establish an internal quality assurance program. Faced with a rising number of grievances by prisoners and filed lawsuits charging inadequate access to health care, the department contracted with an external review organization to assess the quality assurance program and to recommend changes, as mentioned above. In addition, this third-party review organization is assisting the contractor in developing better procedures for making clinical decisions.

Costs

In 1989 one of the health care administrators for the department estimated that the services provided by the contractor could be provided directly by the State for about 13 percent less—the amount the contractor charged for its fee and overhead expenses. However, this ignores the question of whether the department could in fact provide the services that the contractor provides at even the same cost as the contract amount. The current health care administrator believes that it would be almost impossible to duplicate what the contractor is doing. "We want to do it," he says, but he reports that the State personnel requirements are too rigid to permit a cost-effective service delivery system provided directly by State employees. In other words, the constraints that led the department to contract in the first place continue to exist.

In summary, the department's managers believe that even with the apparently higher cost of contracting, the State is receiving several important benefits. The first is that the department's managers are able to achieve a sharper focus by delegating management of day-to-day medical care to a contractor. Thus 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. Second, the department believes that it is reducing its exposure to inmate lawsuits because both the inmates and the courts apparently perceive that inmates are getting better care than the department would be able to provide directly. One of the department's officials sums this up by saying that the "department should not attempt to force costs lower and run a program which loses credibility—and winds up costing more in the long run."

Georgia Moves From Partial to Comprehensive Contracting

Since 1980, the Georgia Department of Corrections has contracted for health care services or personnel in most of its correctional facilities. The department began with a limited contract to provide personnel needed to deliver primary health care in the State's prisons, as well as for more comprehensive contractor-managed health care in two facilities. In 1994 the department abandoned its strategy of partial contracting and signed a contract with a single firm that assumed responsibility for delivering comprehensive health care in all of the State's prisons.

Under pressure from inmate litigation charging inadequate health care and, in 1983, a Federal court order in *Gutherie v. Evans*, the department undertook to improve its health care delivery system. The department confronted a number of obstacles, however. Many of the State's prisons were in remote areas and were difficult to staff. State personnel regulations limited compensation at submarket levels and prohibited flexibility in hiring arrangements that could have helped the department to attract qualified staff. Difficulties in staffing were compounded by the shortage of nurses and physicians' assistants in the region. The department consequently engaged a contractor, Correctional Medical Services (CMS), to provide medical staff at 10 of the 12 facilities. The department issued a request for proposals (RFP) listing the administrative and medical positions that were to be filled and offered the contractor a flat rate for its services. Under this personal service contract, the contractor was obliged to provide fully licensed and qualified health care personnel, in the numbers and types specified in the department's RFP, to deliver primary health care to inmates in the identified institutions, to provide dental services, to provide skilled nursing services and/or medical observation within an infirmary setting for chronically ill prisoners, and to make available outpatient diagnostic and treatment services and specialty consultation. The contractor was obliged to provide access to outside secondary and tertiary services as needed through the delivery of pre- and postoperative care. The department covered the cost of these specialists' services and of hospitalization, even though the contractors' medical staff made the referrals. Not being at financial risk, nor being responsible for administering the overall provision of health care at these facilities, the contractor had no compelling financial incentive to manage the utilization of expensive off-site health care resources effectively.

In two other facilities, the department contracted for comprehensive health care as well as staff, again with CMS. One was for services at the Augusta Correctional and Medical Institution (ACMI), a 135-bed facility that operates as the main referral center for the department. Until recently, it was an infirmary on the site of a 600-bed prison that provided primary health care to prisoners in that facility and also served as a focal point for delivering secondary and tertiary care to prisoners referred there from all prisons in the State. Until the spring of 1989, all surgical procedures were done outside the department, at the Humana Hospital in downtown Augusta. In 1989 the State constructed two surgical suites at ACMI so that general surgical procedures could be delivered behind prison walls without incurring the high cost of transportation and security in community-based hospitals. The State has averaged about 600 to 750 procedures a year since then, primarily general surgery, orthopedic, and ENT, but not tertiary-level procedures, which are still done in outside hospitals.

At ACMI the contractor is obliged to offer the same services as in the other facilities, but also staff surgeons. If other consulting surgeons are needed, the department retains them directly and compensates them by means of an individual contract or on a fee-for-service basis. Likewise, the department agrees to pay the cost directly for specialists needed for consultation in nonsurgical matters and covers the costs of all hospitalizations in tertiary-level medical cases or surgical cases considered to be beyond the capability of ACMI.

In 1988 the department undertook a pilot project to test comprehensive contracting for medical care at a single institution, the Lowndes Correctional Institution, a prison in the town of Valdosta, Georgia. This new 750-bed prison for men opened in the spring of 1988, and the department signed a contract with CMS to provide a "total" program of inmate health care there. The contractor was obliged to

provide all administrative and clinical staffing and all supplies, including pharmaceutical supplies, needed to deliver inmate health care (with the exception of durable equipment that was provided by the department).

This experiment lasted about two years but was abandoned by the department because of its cost. State officials concluded that a single facility with a relatively small population was not sufficient to support cost-effective contracting for comprehensive health care services. They concluded that for a facility of that size, the State could operate it as cheaply as a vendor. Moreover, State officials believed that the services at Lowndes were comparable to services provided at other facilities around the prison system. The department concluded, however, that comprehensive contracting would be more advantageous if it encompassed a larger population of inmates and a larger number of institutions.

Consequently, the department issued a request for proposals in 1994 requesting bids for a comprehensive statewide contract to deliver a total health care program to all of its inmates. Virtually all aspects of the department's health services system are to be administered and operated by the contractor, with the exception of mental health services. The department will retain responsibility for administration and management of all mental health services, as well as for the cost of all acute inpatient psychiatric hospitalization. The contractor's responsibilities will be limited to filling specific mental health positions at various prisons and providing nursing support for mental health service programs, including triage, sick call, medication administration, and other necessary nursing support. Under this new contract, health care at all prisons, including ACMI, will be under a single administrator. The department's RFP did not specify precisely how the health care services would be staffed and left certain aspects of service delivery design to the contractor. The contract is a fixed-price contract, budgeted for 34,300 prisoners, from which is derived an annual capitated rate for health care services for each prisoner. Price adjustments are permitted if the prisoner population rises above or falls below the 34,300 level. The amount of the adjustment is computed based on the capitated, per prisoner rate.

The contractor has a strong incentive to manage the utilization of expensive services cost-effectively because it is at financial risk for all services, including secondary and tertiary services purchased from vendors not employed by the contractor. To enable the contractor to predict its costs and its potential liabilities with some degree of certainty, the department agreed to share costs in cases where the costs per prisoner of outside hospital care exceed \$25,000 per episode. This cap applies to the treatment of any contagious illness affecting more than one inmate, an injury to more than one inmate arising from the same occurrence, any illness affecting a single inmate, or any injury to a single inmate. The cost of these treatments is shared in a graduated fashion, with the department and contractor splitting costs 50/50 for cases ranging between \$25,000 and \$49,999. For cases costing from \$50,000 up to \$100,000, the department shares 75 percent of the burden; costs in excess of \$100,000 per inmate per case are paid entirely by the department.

Costs and Benefits of Contracting

Because comprehensive health care will not be delivered by a single contractor until the fall of 1994, it is too early to assess its advantages and disadvantages in Georgia. As for the earlier contract to provide medical staff, the department's health services administrator reported that the direct costs of contracting were probably higher than they would have been if the State had provided services directly, but that "the indirect cost of litigation and staff hassles probably make contracting cheaper in the long run." In addition to the amount given to the contractor, the department was required to spend money for monitoring the contractor's performance—a cost that may not have been as high if the department had employed the medical staff directly. However, the question of whether the department's costs of direct provision would have been higher or lower is moot, because the department chose to contract in facilities precisely because they were unable to hire the staff directly in those regions. The department had no choice but to contract for health care services at the Georgia State Prison at Reidsville, because it was required to do so by the Federal court.

Not surprisingly, the principal benefit of the earlier arrangement, according to the department's health services administrator, was not lower cost, but the fact that contractors supply the means of providing competent health care in the first place in a number of prisons. Because the contractor was a national firm, it recruited medical personnel more effectively in the larger national market. Not encumbered by rules governing the employment of public employees, the contractor reportedly was able to manage staff and resolve staff problems more effectively than State managers could have if the medical personnel were State employees. As a consequence, the contractor reportedly was able to provide a quality of health care that was higher than the department could have met had it tried to provide those services directly. The contractor exceeded standards of quality established by the DOC, and the contractor obtained ACA accreditation more than a year before the State was required by the Federal court.

With respect to contracting for medical services at ACMI, the department's health services administrator reported that the financial benefits were "essentially a wash." The department would have been paying similar rates to surgical staff and medical staff if procedures were performed in community hospitals. Specific surgical consultants were employed directly by the department and were paid in accordance with preestablished rates for each procedure; the contractor did not cover the costs of consulting surgeons and physicians at ACMI. However, substantial savings accrue from avoiding all of the hospital charges that are associated with surgical care in the larger community. The department estimated that spending for hospital services was about 50 percent lower when surgical care was provided on-site at ACMI. Other savings were incurred by avoiding the transportation and security costs associated with managing prisoners off-site in the general community hospital.

In the late 1970's and early 1980's, a shift occurred in the private for-profit hospital industry away from hospital ownership toward providing hospital management services under contract. As it became more expensive with rising interest rates to borrow 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, with approximately 6,000 hospitals in the Nation, only 14 had contracted out their day-to-day management.³⁵ By 1980, according to the American Hospital Association, there were 297 such contracts; by 1985, the number had grown to 595.³⁶ The existence of a pool of noncompetitive public hospitals provided a large market for contract management companies to develop their expertise.

Interestingly, prison health care shares many of the characteristics of the public hospitals that supported the growth of the contract management industry in its heyday. As in public hospitals during the pre-Medicaid/Medicare era (that is, before 1964), prison health services are delivered largely outside a price-driven market; revenues are provided by government appropriations; and services are delivered at no cost to prisoners or to indigents (in the case of public hospitals). Lacking the necessity of charging patients, prisons, 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 were secular non-profit hospitals, many of which provided essentially public services in a similar fashion.³⁷

The term "contract management" in the free community health care industry includes a variety of 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 specialty contract management was stimulated by the creation of the Federal prospective payment system in fiscal year 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 than their production cost. The existence of gaps between cost and price provides profit-making opportunities for specialized companies able to reach large economies of scale 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 fiscal year 1984, to mark up the prices for services.

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 was collected from surveys of hospital board members and therefore represents board members' perceptions rather than established truths about what contract management actually has 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 the 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.³⁸

Need for an Outsider

Boards may decide to choose 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. Similar reasons are sometimes given for contract correctional health care services. In Georgia, for example, the Federal court ordered that an outside firm assume responsibility for health care at the Georgia State Prison because the department previously had not provided adequate care.³⁹ The need for an outsider to shield county managers from day-to-day disputes also was given by county managers as a principal reason for contracting for the management of an entire jail in Santa Fe, New Mexico.⁴⁰

Comparing Reasons for Choosing Full-Line and Specialty Contract Management

Two different surveys on 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:

- Need for management expertise.
- Physician recruitment and retention.

- Unsatisfactory or retiring administrator.
- Rising expenses.
- Declining revenues.⁴¹

A 1984 survey by *Modern Healthcare* of department (or specialty) contract management asked similar questions to hospital administrators who contracted out for specialty services only.⁴² The top priorities listed by administrators who make the contracting decisions included:

• Controlling staff costs	48%
• Profitability	47
• Controlling supply costs	46
• Decreasing length of stay	45
• 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 as establishing how contract management has 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 nonprofit hospitals, rather than public with private or public with profit-seeking private hospitals.

In one study, Kralewski and his colleagues compared 20 matched pairs of nonprofit community hospitals throughout the United States, using 12 performance indicators. 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, bed occupancy rates, average length of stay, employee/patient ratios, payroll expenses/total expenses, number of employee/number of beds, and 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 brought about 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 (that is, that full-line contract management improves profitability largely through price or revenue increases rather than through cost reduction).⁴³

This parallels the 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.⁴⁴

These conclusions may be outdated now because these studies examined hospital operations before the shift occurred in fiscal year 1984 from a cost-based reimbursement system to a prospective payment system based on DRG rates. Now that per case DRG rates are used by many payers, 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.

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 they are most expert at delivering.

Contracting for Hospital Management and the Prospects for Higher Efficiency and Lower Costs

The preceding discussion indicates that there is little evidence that the full-line management industry has relied principally on 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 is not of value to prisons, given the way resources are allocated. Prisons do not operate within a market where health care is paid for on a preservice 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 departments of correction and other agencies of government.

In addition, there are powerful structural reasons why full-line contract managers will be more limited in their ability to reduce costs in prisons than in the free community. In the free community, managers of privately managed hospitals are permitted considerable latitude in changing the patient mix and shedding unprofitable services. This has incurred large social costs, but managers have been free to pass those costs on to 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 in prisons, unless private contractors are given responsibility for only a portion of the inmate population and are permitted to pick and choose their patients while shedding those who can be least profitably treated. These latter patients would have to be treated in local community hospitals at a cost to the prison. This would create a system-wide inefficiency because the prisons might not be able to negotiate contracts with local hospitals to pay for these services on any basis other than cost reimbursement.

It is possible that full-line contract management firms could reorganize the production of a prison's health care 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 in the free community 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 in the free community 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, is beyond the scope of this study. Armed with better utilization and financial data than exist, prison health care 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 the next chapter.)

The Importance of Unbiased Vision and Monitoring

During the last decade and a half, discussions about contracting have become quite ideological. Some people hold a preference for "privatization" (contracting) because of beliefs—and even elaborate theories—about how government provision is inherently inefficient and about how the private market is nearly always more effective. Opponents of privatization/contracting object to it on various grounds. Some assert that it is wrong to profit from imprisonment; others worry that profit-making incentives will lead to sacrificing the quality and perhaps even the quantity of health care services in the pursuit of profit. Others worry about the loss of direct public control over contracted services and the resulting withering of public capacity.⁴⁵

If contracting decisions are to be made intelligently, managers need to assess clearly the costs and benefits of direct provisions as opposed to purchasing services from private vendors. Contracting clearly imposes some costs and risks,

and managers should be assured that what they get in return is worth the trade-off. Ongoing monitoring systems are therefore essential, to track both ongoing operations and the quality of the "end product" of the service. How this might be done is discussed more fully in the next chapter.

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Chapter 6

Management Information Systems and Their Importance for Managing Costs and Care

If correctional health care administrators are to manage health services successfully, they need to monitor many different aspects of this dynamic system. They need to know what kinds of resources are being employed, the cost of those resources, the nature and extent of prisoners' demand for services, how resources are matched with needs and expressed demand, what outcomes are being achieved, and how effectively—and cost-effectively—these needs are met. Without good monitoring systems, effective management of cost and care is nearly impossible. To put it another way: if you can't measure it, you can't manage it.

The demands of monitoring all health care activities in the prison administrators' domain are great, because prisons are at once providers, consumers, and payers for health care. In departments with many prisons, the task of monitoring these various activities coherently is especially challenging, because they happen at many different sites.

Whereas all managed health care providers share a need for good monitoring systems, prison administrators also have a special need that is not felt as keenly in the free community. Prisoners have a constitutional right to care that non-incarcerated people do not enjoy, and the courts scrutinize health care more closely in prisons than in the free community. Health services administrators in prisons consequently have a more compelling interest in monitoring the quality of care than do their colleagues in the free community. As a California Department of Corrections document states, "The Department does not have adequate criteria against which to measure performance and does not have adequate systems to measure the quality of care provided. The inability to measure these factors results in a lack of accountability and further vulnerability to lawsuit."¹ This issue will become

even more salient if prison administrators shift their focus from expanding and upgrading health care to controlling the costs of that care. As Iezzoni observes, "Almost by definition, containing health care costs means doing less for patients."² Doing less is extremely risky in prisons, unless one can demonstrate that quality is not being sacrificed or that it is being improved as a result of better management.

In the ideal world, more information is nearly always better, and computerized information is nearly always better still. In the real world, however, obtaining information is often very expensive. Considerations of feasibility and cost-effectiveness therefore must weigh heavily in any discussion of management information systems. Consequently, the key questions are: For what purposes should monitoring systems be developed? What is the minimum amount of information we need to collect to monitor care, quality, and cost? How are information needs related to the approach taken to manage health care? What is the most cost-effective way of collecting the needed information?

This chapter examines these questions briefly and also describes the automated management information systems being developed in the Florida Department of Corrections, the Federal Bureau of Prisons, the Utah Department of Corrections, and the Texas Department of Criminal Justice.

Why Collect Information?

Correctional health care providers and managers have several different needs for information. Front-line providers need certain information to administer clinical services to patients. Utilization managers need information to assess clinical decisions and to facilitate the most appropriate and

cost-effective match of needs and resources. Higher-level managers need to exercise control over all aspects of the health care service system, including deciding how to allocate and reallocate resources, determining if it is best to “make” or “buy” specific services, monitoring vendors and holding them accountable, planning and budgeting for the future, identifying weak parts of the system and devising ways of improving them, and monitoring the quality of the services being delivered. In other words, front-line providers and utilization managers need information to manage patient services on a case-by-case basis. Higher-level administrators have the responsibility of managing the service delivery system. As discussed in earlier chapters, relying simply on the decisions of clinical staff and other front-line providers for health care delivery results in an unmanaged system, with few constraints on spending. Having utilization managers working with clinical providers yields some constraints, on a case-by-case basis, but this is not the same as managing the larger delivery system.

Clinical Services to Patients

Health care providers need to know certain things to make informed decisions about treating patients. Their ongoing tasks include, among others:

- Learning about requests for service.
 - Scheduling appointments for services and flagging missed appointments.
 - Informing the patient of the potential benefits and risks of alternative treatments and allowing informed decision making.
 - Creating incentives for patients to weigh the financial and medical aspects of their care.
 - Learning why the patient appears for service, and what his or her medical history is.
 - Identifying what health care resources are available in this particular case.
 - Monitoring resources in use.
 - Identifying resources needed but not available.
 - Assessing the costs of alternative courses of action (as discussed in earlier chapters, providers have traditionally been insensitive to costs, but having information on comparative costs is needed if this is to be changed).
 - Determining what services to give the patient.
- Making timely decisions about whether to continue or modify a treatment.
 - Planning services to be given to the patient in the future to maximize the continuity of care.
 - Learning about the outcomes of various treatments given to patients.
 - Tracking medications in use.
 - Assessing, through retrospective review, the adequacy of the overall clinical process.
 - Asking patients about their satisfaction with their treatment and its aftermath.

For many of these tasks, the information providers commonly use in most prisons is collected and communicated manually, on paper, or by telephone calls. These records, including the medical records, are reasonably efficient means of collecting information, even if they are not automated. Automating many tasks—such as scheduling and rescheduling, printing callout lists and passes, and sick-call appointment lists—would certainly increase efficiency. Automating the inmates’ medical record and making it available throughout the prison system would avert having to treat somebody “blindly” soon after transfer if an inmate’s medical record had not caught up with him or her.

The paper systems used in most prison systems do not provide several types of information needed for cost-effective treatment, however. These include information about resources available, in use, and not available; information about expected costs, expected outcomes, and the quality or adequacy of services. This information has to be collected and communicated through something other than patient-level records. If patient records were automated, information about expected costs and outcomes might or could be obtained by aggregating data in these patient-level records. (Information about outcomes would have to be collected in such a way that they could be aggregated and analyzed, however.)

Utilization Management

As discussed in chapter 4, effective utilization management involves the review of clinicians’ decisions to evaluate their appropriateness. These tasks include:

- Learning about the providers’ clinical decisions, especially with respect to referrals to consulting physicians or to hospitals.

- Understanding the reasons for these decisions.
- Learning the consequences of these decisions.
- Keeping abreast of the patient's status when receiving expensive treatments.
- Identifying the expected costs of alternative courses of action.
- In some agencies assessing the quality of alternative services.

In many prisons, ongoing utilization management relies largely on telephonic communication and paper notification systems. These channels probably are adequate and efficient for collecting and transmitting much needed information. However, if computer-based information systems were available and accessible through terminals at different locations, the work of the utilization manager/reviewer would be somewhat simplified because all interested parties could be notified of a patient's status, without the manager/reviewer's having to make multiple calls to coordinate transfers, admissions, discharges, and so on.³ In addition, by aggregating patient-based information that was computerized, utilization managers would be able to discern general patterns of utilization and expenditures that may assist them in making more cost-effective decisions. Information characterizing the quality of the service typically is not developed by utilization managers or by clinicians, however. Getting this information requires collecting it.

Health Services Administration

Upper-level health services managers have responsibilities that include but also transcend patient-level service delivery. Their tasks include, among others:

- Monitoring demands for services, utilization of services, and the balance between demand and available resources.
- Monitoring costs of services and goods.
- Monitoring and evaluating providers' practices so as to make decisions about whether to give them more work, less work, or to request that they modify how they deliver services.
- Assessing the adequacy of the patient-level delivery of services, including the quality of those services.
- Assessing the feasibility, desirability, and cost-effectiveness of alternative means of service provision.

- Planning and budgeting for future services.

The absence of computerized information systems is felt most acutely at this level. Information needed about supply, demand, utilization, and cost are institutional-level data rather than patient-level. Some of these data—information about demand, utilization, and some cost data—can be produced by aggregating patient-level records. Without computers, however, the aggregation and analysis of these patient-level data in useful ways are not feasible, except for special studies that, if done manually, are extremely labor intensive.

Administrators in many prisons do have sources of aggregated information—some of them computerized (such as cost information)—but the ability to analyze it is limited because of the form in which it is collected and kept. For example, indicators of utilization may be limited to counts of prisoners reporting to sick call during a particular period, the number of persons housed in infirmaries on any given day (and perhaps numbers of admissions to infirmaries during a specified period), the numbers of prisoners visited by specialists either in or outside the facility, and information about hospitalizations—such as number of such hospitalizations, lengths of stay, and billed charges.

These data cannot be analyzed easily because of the way they are kept, even if the data are on a computer. Reports of outside hospitalizations, for example, may be simple counts of such hospitalizations per quarter, or some other period. More detail about such hospitalizations may be provided in lists showing prisoner's name, the name of the hospital, admission and discharge dates, reason for admission, and billed/paid charges. Information presented in such lists cannot be analyzed easily to develop even the most rudimentary summaries for specified types of patients or providers without having to extract data manually. Such rudimentary statistics include average lengths of stay by reason for admission, average amount billed/paid by reason for admission, and trends in hospitalization costs by reason for admission. Worse still, different data pertaining to the same event may be reported on different forms. For example, billing/payment data may be reported on one set of forms, while other data on hospitalization might be reported on another. Detailed data on types of discrete types of services rendered and their costs probably are available only in archived invoices from hospitals and are not accumulated in a form that correctional health care administrators can use effectively.

To be at all useful to administrators charged with managing a prison health care system, an information system must have the capacity to aggregate information about patients, costs,

and utilization for sets of patients/providers/events of interest and must be able to compute summary statistics for these categories.

Prison health care managers are limited in their use of information not only because of the form in which these needed data are kept, but also because certain types of data are not collected at all. These include information about service costs, service outcomes, and service quality.

Costs

In part because prison systems do not have to bill patients for services, and because accounting systems in public agencies were designed for fund control rather than for cost accounting, prison administrators have a weak handle on what it actually costs to deliver discrete types of health care services. Some prison systems even lack a separate accounting category for health services—a condition that makes effective management of those services nearly impossible. In those departments of corrections that do have separate accounting categories for health services, they are generally too broadly defined and too narrowly defined at the same time. That is, they include information not about costs of discrete units of services (for example, sick call visits to clinical staff), but rather about the annual salaries of health care providers. They are also too narrow because correctional accounts do not report all the costs associated with these services. For example, in many States, the cost of fringe benefits and/or retirement fund contributions are assigned not to the department of corrections' budget but to a separate government-wide account.⁴ This alone results in a substantial underestimation of the actual costs of providing services in prisons.

Moreover, the cost of capital being consumed to provide the service is not counted in the public sector because accounting methods make no effort to spread capital expenditures over the years of expected service. Instead, they are treated as one-time expenditures. This absence of properly allocated capital costs in public accounts results in an understatement of public costs of delivering services relative to private firms' costs.

Even the most easily tracked costs—charges paid to outside providers of services, such as visits to specialist physicians for diagnoses—are insufficiently inclusive in many departments because other direct costs associated with these visits are not counted. For example, the cost of custody staff escorts, of transportation costs, and so on, often are absorbed not in health service accounts but in "security" personnel categories.

Because units of service are not counted and costs are not assigned to those units, average unit costs or marginal costs of additional increments of service generally are not available to managers. Without good estimates of these costs, it is difficult for managers to make well-informed decisions between alternative means of providing services.

Information systems can be designed to capture all costs associated with health care events, even without revamping the larger State government's accounting system. Costs assigned to other accounts can be estimated; special reports can be run to aggregate different accounts within departments of correction (to include, for example, costs of health service providers and custody staff); and information describing particular units of service can be devised. If computerized, these data can be used by managers to make cost-effective resource allocations.

Performance

Despite the importance of ensuring that the quality of health service delivery meets constitutional and professional standards, most prison systems have done little to measure the performance of their health care systems. Comparing the characteristics of their facilities and procedures with the standards promulgated by the standard-setting bodies (for example, ACA, NCCHC, and JCAHO) is not the same as measuring service performance. This is not a new observation. Through its Agenda for Change, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is modifying its standards to emphasize the performance of hospitals over their structure (for example, the numbers of fire exits or of doctors and nurses).

The absence of systematic attention to the outcomes of health care services is not peculiar to prisons. Indeed, the United States spends almost a trillion dollars on health care annually, yet very little is known about what this money is buying. To rectify this, analysts and organizations in the free community are undertaking a variety of studies to identify and measure the effects of health care services on the health and well-being of patients and populations. Unlike clinical trials, which evaluate the efficacy of treatments in controlled environments, "outcomes research" studies generally seek to evaluate the effectiveness of treatments as they are delivered in real-life settings. The development of outcomes research is still in its infancy, but it is certain to grow more important as concerns about cost-effectiveness become more salient.

If managers are to make informed choices between providers or between different types of provider systems (including

those in-house), it is helpful to know how well they perform as well as how much they cost. To measure performance, attention should be given to developing information not only about the patients' physical health but also about the quality of their lives and their ability to function in the world. Outcomes of interest include:

- *Biological conditions.*
- *Functioning*, including physical functioning (the ability to perform various physical activities), role functioning (assessed by the extent to which health interferes with daily activities), and social functioning (evaluated by the extent to which normal social activities are impaired by health conditions).
- *Well-being*, a measure of the patient's sense of physical and mental well-being.
- *Satisfaction with the health care provided.*

Admittedly, collecting information about prisoners' evaluations of the health care they receive is fraught with hazards, but these data, in conjunction with other, more objective indicators of health status, could assist prison health care managers when choosing from among various providers. The involvement of prisoners in assessing the quality of

health care can help lessen their suspicion that they are being ignored and may increase their cooperation in their own treatment. This information can also be incorporated into the prisons' quality review and improvement practices. Indeed, information about outcomes should be an integral part of any total quality management (TQM) program. Information about patient outcomes assists managers in developing guidelines for appropriate and high-quality care and gives providers and managers a way to discuss how they might improve existing health care procedures.

Developments in State Prison Systems

Several State departments of corrections have begun to develop management information systems for health services. These include the departments in Florida, Utah, Texas, and the Federal Bureau of Prisons. As discussed later, the effort in most has been concentrated on developing management information systems to facilitate the day-to-day operations of pharmacies and medication administration. Florida's has gone beyond this to develop broader capacities (see box). Moreover, some have been "home grown" systems, developed or adapted by the prison administrators themselves, and one (Utah's) has been purchased from a private vendor.

Florida's Offender-Based Health Services Information System

In 1987 the Florida Department of Corrections' Office of Health Services began developing an automated information system designed to assist in managing the delivery of cost-effective health care services to inmates. As the name suggests, the Offender-Based Information System Health Services system (OBIS-HS) is being built as a companion to the department's existing Offender-Based Information System (OBIS). The long-term objective is to have a totally electronic inmate health record that will contain information on all types of health care services provided to inmates—including medical, dental, mental health, and pharmacy services. All manual logs being used by the health services staff will be replaced by electronic records. All statistical information required for the operation and management of health services ultimately will be derived from the computer-based files, many of which will involve combining information from different data categories. A variety of reports for management purposes will be available routinely. The structure of this information system is shown in Figure 6.1.

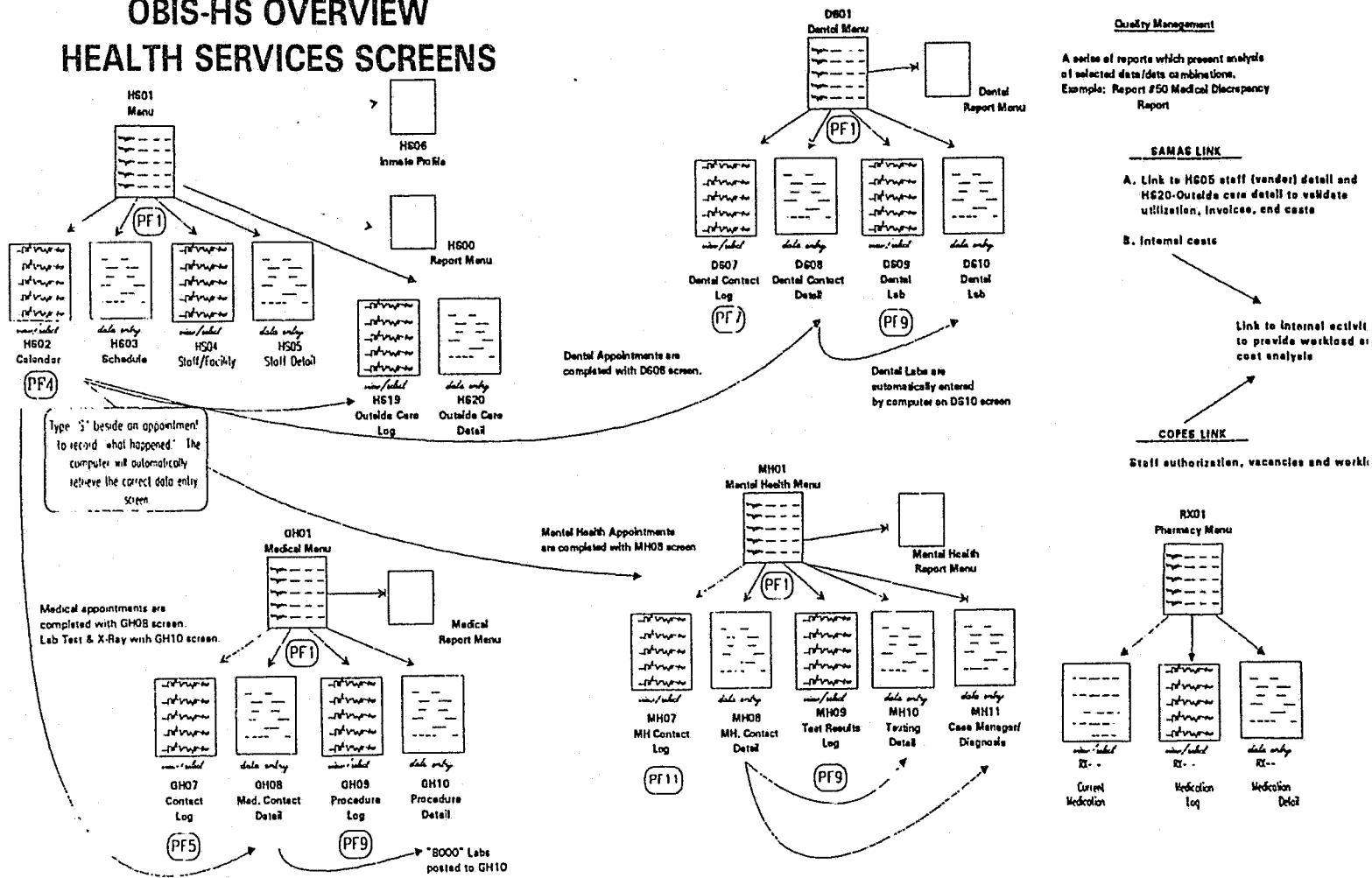
Currently, four components have been implemented in major institutions throughout Florida's DOC. These include:

- **Medical information.** This component was installed in all major institutions in June 1989. It contains data formerly kept on the patients' paper medical records, such as physician and nurse encounters, lab tests, x-ray results, EKG's, and so on. One screen provides a combined chronological record of medical, dental, and mental health encounters.

Figure 6.1

Structure of the Florida Department of Corrections' Health Services Information System

OBIS-HS OVERVIEW HEALTH SERVICES SCREENS



- **Community care/cost information.** The community care component was brought on-line in May 1990. It records all outside-care events, including emergency visits, hospital inpatient admissions, emergency room visits, ambulatory surgical procedures, hospital outpatient procedures, physician consults and referrals, and other ancillary procedures. Each bill associated with the care is recorded. Frequently, institutional business managers have access to these health data so they can verify use and costs.
- **Dental component.** In December 1990, the dental component was implemented; this records all dental service encounters and dental lab procedures.
- **Mental health.** In June 1993, the mental health component was operating in all major institutions. It provides access to an on-line mental health record, which includes a chronological listing of the inmates' mental health service encounters and a listing of psychological tests administered and the resulting scores.

The system is being designed to operate ultimately on a central mainframe computer augmented with minicomputers at the institutions and regional offices. The health care management information system (MIS), with its various subcomponents, will be one module of the larger OBIS system. During the development phase, however, all operating components of the health care module are being created as stand-alone systems and have not yet been integrated into a single centralized computer and database.

One advantage of the system is its ability to validate data upon entry. Whereas manual logs may or may not be reviewed by a quality reviewer, data in the computer-based system are checked for some types of errors automatically. The built-in validation routine will reject data if they do not fit in the category being entered. For example, if a service was recorded as having been provided by a hospital and the provider code does not match that type of facility, this information will be rejected, forcing the person entering the data to make the correct entry.

The system produces several management reports that are useful in cost containment and care management efforts. (See Appendix A for a complete list of the health services reports that will be available routinely.) The monthly workload and utilization report generated by the MIS is shown in Appendix B. Not only does this report generate counts of events of interest, but it also computes various metrics that can be used to evaluate service delivery. For example, statistics are computed for each facility to report the proportions of prisoners classified according to their medical and mental health condition and rates of nonemergency clinic use, emergency clinic use, dental emergencies, mental health emergencies, ambulatory surgery, emergency room use, specialty consultation, medication, HIV incidence and prevalence rates, positive HIV tests, and bed use and bed availability rates.

In addition, the system is able to produce a variety of other reports, including:

- **Automated callouts and appointment worksheets.** The information system has the capability of automatically scheduling visits to clinics or other service providers and issues appointment schedules for front desk and medical providers. The system also generates callout passes, as well as callout lists.
- **Past due appointment lists.** These are generated separately for different types of providers—for example, dental reexaminations, chronic disease clinic appointments, and so on.
- **Patient treatment logs.** This report provides a recapitulation of encounters with any type of health care provider, medical, dental, or mental health.
- **Inmate custody by medical classification reports.** These provide listings of inmates having specified custody classification ranges and medical specified grades. (The department classifies all inmates according to their medical/psychological health and assigns them a grade.)
- **Postrelease planning reports.** Listing the medical needs of inmates prior to their release.

- *Statistics and percentages.* This report allows a variety of modifications to generate cross-tabular information and lists to profile the inmate populations' health status. For example, reports may be generated to list all persons who are psychiatrically impaired by a certain specified medical grade, indicating their transportation needs for health care purposes.
- *Inmate movement details,* listing all inmates who have transferred to or from an institution within dates specified, by reason for movement.
- *Staff listed by facility,* described by status and type of staff.
- *Outside resources reports,* listing physicians and agencies available to the department on a consulting or contractual basis, by status, and type of service provided.
- *Unpaid bills—a "tickler file" for all unpaid invoices.*
- *Cost events—recording costs and associated data for services provided by community-based or outside providers.* These reports include inmates' medical grade, facility, diagnosis, identity of provider, day of week, duration of service—recorded by time of day and date—estimated cost, invoiced cost, and paid cost.
- *Summary utilization/cost reports—statewide utilization and cost information, reporting aggregate data by facility, within region, reporting discharge days, average inpatient days, total patient days paid, total inpatient days paid, total professional fee, average professional fee, total facility costs, average facility cost per day, and average cost per discharge.* These statistics can be provided for several types of services, for example, emergency admissions to community hospitals.
- *Same-day health care reports,* providing summary information on outpatient admissions, by admission date, allowing selection by date range, by facility, by hospital, and by specific ICD-9 diagnosis codes or by diagnosis code groups.
- *Hospital utilization reports,* providing summary information on inpatient admissions, by admission date, allowing selection by date range, by facility, by hospital, and by specific ICD-9 diagnosis codes or by diagnosis code groups.
- *Inside-care reports,* recording inside-care encounters, by type of contact, diagnosis, and action; procedures, listing medical procedures, such as lab tests and x-rays, by vendor.
- *Chronic illness clinics.* These reports list inmates in a chronic disease clinic and those who require a 90-day health appraisal appointment.
- *Inmates by ICD-9 diagnosis code,* listing inmates who are in an institution and have been seen for a specific ICD-9 diagnosis code during a specified time range.
- *Quality management review/random selection.* A report designed to assist with quality management (QM) record reviews. It randomly selects 10 percent of the inmates seen during a specified time period who are still at the institution on the day the report is generated. Inmates can be selected from a population specified.
- *Profile of elderly inmates reports,* summarizing diagnoses for each inmate at all/any institution who was born before a date typed in the date of birth field.
- *Procedures by provider reports,* recapping procedures provided by specified provider.
- *Summary logs separately for lab, x-ray; blade and needle log—listing inmates, contact dates, staff, numbers and types of blades and needles used.*
- *Inmate IQ/psych period report,* listing inmates currently at an institution who have an IQ of less than 70, by psychiatric condition.

Monitoring Utilization Patterns

Information in the system and the readily available reports enable the department's health services administrators to review physicians' referring behavior and to identify patterns across the entire department, in regions, and in facilities. Individual physicians' referral practices can be compared with the

patterns of other physicians and with aggregate referral rates at various levels. These data can be used as a tool for physicians and administrators to discuss appropriate reasons for referral, standards to govern practice, and conditions under which deviations from the standards are permitted. If physicians who refer patients to expensive resources more often than others change their practices to reflect more closely the regional average, costs may be averted.

For example, a review of historical data comparing patients' diagnoses (identified by ICD-9 diagnosis codes) and physicians' decisions to refer to expensive emergency care can be evaluated to determine the most appropriate standard to govern emergency facilities' use. Guidelines can be developed to assist physicians and others in determining when emergency facilities are appropriate.

Information To Support Procurement Efforts

In addition to informing management about current and past practices, the information system provides contract negotiators with data about expected demand for services, based on historical trends, which is used to obtain advantageous rates from providers. One of the department's main cost-containment strategies is to consolidate prisoners with similar medical conditions in certain regions and to negotiate advantageous rates from health care providers. Armed with information about the prevalence of medical conditions in each prison and historic data on the number of procedures needed by similar populations, the department is able to estimate the future demand for services and is thereby in a stronger position to negotiate discounts with providers. These data also enable administrators to evaluate the types of services required in different geographic regions, the costs of those services, and the potential for consolidating patients to obtain volume discounts. Using the automated data, the department can forecast the demand for certain types of nonemergency treatments, such as urology procedures, cardiac catheterization, and hernia repairs. Demand for emergency services can be estimated with less precision, but historic averages for specified types and numbers of prisoners in a particular region give some indication.

As the system speeds the processing of information, bills submitted by contractors are paid more quickly. The department's ability to generate prompt payments provides it with an important bargaining chip in rate negotiations.

The department has used data in this way to reap substantial savings in health care spending. Armed with data on the expected number of patient bed days and the types of cases (based on ICD-9 procedure codes), the department negotiated significantly reduced per diem rates with some hospitals. The department estimates that it saved \$6.5 million in hospital costs during fiscal year 1992-93 by this means. In addition, during this period, the department saved \$1.3 million for laboratory procedures, \$410,000 for EKG services, and \$2.4 million for radiology services.

Evaluating Alternative Modes of Delivering Services

The information system can be of use in making other types of decisions. Managers will be able to estimate the consequences of adopting different service strategies, such as providing certain services directly rather than purchasing them from independent providers. For example, is there sufficient demand for a mobile CAT scanner in a particular region to justify buying the equipment? If yes, how many scanners should be bought? Since 1990, the department has required that cost-benefit analyses be conducted to determine whether new services requested have the potential for enhancing the quality of service or reducing costs. As part of this analysis, correctional managers are obliged to estimate the number of prisoners who will benefit from the service, the usual cost per visit/use, and the changes in workload that will result. The automated information system will simplify the work required for these analyses.

Avoiding Litigation Expenses

The department believes that the automated medical record, once fully developed, will be a deterrent to prisoners' making false claims about medical negligence. Once the prisoner's attorney sees that the records are complete and centralized, he or she may be less likely to pursue unfounded claims. Even at the level of development that exists, the automation of patient records reportedly has accomplished this already.

Utah's Health Services MIS

Under development since 1989, the Utah Department of Corrections current health services MIS consists largely of patients' medical records. System capabilities include storing and producing reports on individual inmates' medical records as well as a variety of management reports. In addition, the Utah system plans to implement an automated pharmacy module on-line. Unlike other States' health care data systems, Utah's has been developed with substantial assistance from a private vendor.

The system is built as a local area network, which offers health services staff and others a centralized database, a faster rate of transmittal, and a comparably higher degree of accuracy in transmitting data. Several DOC-owned modems even make it possible for administrators and health care providers to gain access to a patient's record from their homes. Security of the data is maintained through user ID numbers and a series of passwords. Both authorized usage of and unauthorized access to data are tracked by the system and available to administrators in report form.

Utah's health care MIS is structured around the individual patient record. Once certain identifying information is entered to begin a record, an intake questionnaire appears automatically. Upon completion, the system takes one through the interview a second time to confirm the responses. At the end of the encounter, some facilities choose to print out the form and have the inmate sign it. This form then becomes a part of the inmate's paper file. Once registration data have been entered on the patient, they are available throughout the system and accessed through the file server.

Other routines permit entering other data to record subsequent health care encounters, such as date and time of visit, site, nature of complaint or reason for visit, and type of service delivered. The vendor's software has the capability to schedule physicians and dentists and to track and print lists for sick call and inmate passes to be used in visits to different medical areas. In addition, the Utah system helps licensed practical nurses and lower-level caregivers develop statistics for management reports.

Utah is implementing the last module, for pharmacy services. This program collects and reports clinical information, such as drug interactions, and produces labels for prescriptions to be dispensed. The program was written to prompt automatically for certain types of information, thereby providing a form of clinical decision support. For example, physician orders in need of a signature are flagged in a patient's file so that a clinician will be prompted to obtain the required signature.

The MIS also contains an e-mail feature, which administrators say helps facilitate the flow of clinical data in a security-protected environment.

Utah's original software license cost \$40,000 to \$50,000, and support services have averaged \$13,000-\$14,000 per year. As a result of implementing the new software, an investment was made to provide adequate hardware. Utah's system needed rewiring, and the department took the opportunity to switch to fiber-optic wiring. For this, Utah has spent upwards of \$100,000.

The Benefits of Collaboration

Even though correctional departments in a few States are moving ahead to develop their own management information systems, all correctional agencies could benefit greatly from collaborating with each other to design and implement useful systems. Different agencies may already be committed to particular types of computer systems, but the design of programs—including the data to be collected, the indicators

to be measured, and the precise specification of the data items—could be developed collaboratively. To ensure that managers ultimately get an information system that they want to use, managers should not delegate the development of these systems entirely to technical staff but should be engaged throughout the design and testing phases. If they are to manage the cost and care of prison health systems, they will need to be effective managers of information about cost and care as well.

Texas' Computerized Pharmacy Program

The Texas Department of Criminal Justice's Computerized Pharmacy Program was designed and developed internally. The system uses an IBM System 4341 DOS/VSE as a central processing unit. Much of the software is menu driven. Selections from individual menus are made with a light pen. Data on the patient and the health provider using the system are read in electronically with a badge reader. The use of a badge reader for data entry was chosen in part because the hardware for it was already in place for recording commissary purchases. In addition to the data on patient medication, the pharmacy system contains data used in managing and controlling the distribution of pharmaceuticals. As such, drugs received in the warehouse can be tracked through the system to the level of patient administration.

The Computerized Pharmacy Program has three main components. The first, the "Doctor's Office Manual," covers topics related to the input, processing, and viewing of pharmaceutical data on an inmate. After both the health care provider's and the inmate's badge have been read into and accepted by the system, the inmate's medical profile appears on the screen. Any "medical alerts," including dangerous medical conditions or drug allergies, are brought to the provider's attention.

The second component of the system is the formulary. A menu-driven program, this component is primarily for reference. Options for browsing the list of pharmaceuticals on the formulary include searching by stock number, generic name, American Hospital Formulary Service (AHFS) number, brand name, and therapeutic category.

A third feature is the drug distribution system. This system records and tracks data on the administration of drugs to inmates. It provides for each prisoner a list of medications currently prescribed, the start and end dates for the prescription, the last time administered, the dosage, and instructions for administration. Finally, the system offers the option to print medication passes.

The Federal Bureau of Prisons' Health Care Information System

The Bureau's Health Care Information System (HCIS) is a modified version of the Department of Veteran Affairs' (VA) Decentralized Hospital Computer Program (DHCP). Because the VA's program is in the public domain, the Bureau obtained it at no cost. The main expense has been to adapt it to the Bureau's particular information needs. At present, two modules have been installed at 55 prisons: the registration and the outpatient pharmacy modules. The Bureau is now adapting the DHCP dental and laboratory modules.

The registration module of the HCIS is the main database for information on an inmate's medical background. Eventually, the Bureau aims to have a fully computerized medical record, but this file at present contains only rudimentary facts on an inmate's background, which is downloaded from a larger MIS operated by the Bureau—the SENTRY system.

The outpatient pharmacy module has three components—one is used by a pharmacist, the second is used by a pharmacist's assistant, and the third is linked to the National Drug File (NDF), a national database that provides information on drugs available in the U.S.

The Pharmacist's File and the Pharmacist Assistant File allow a health care provider to obtain or update pharmacy data on individual inmates and to use various capabilities to develop management reports. Preprogrammed routines produce 21 different standardized reports.

A prescriptions menu guides users through a variety of procedures used in filling outpatient prescriptions and printing labels for prescriptions. The system tracks which prescriptions have not been picked up by inmates, so that they can be returned to the stockroom.

The National Drug File (NDF) contains information on drug ingredients, generic names, national drug codes (NDC), and VA classification codes. The software is designed so that local drug databases can be matched with information from the national file and new information moved into the BOP Drug File. The VA classification codes are included as relevant information, since they will be used in the development of Allergy and Drug Interaction modules.

Endnotes

1. California Department of Corrections, "California Department of Corrections: Health Services Division" (n.d.), p. 2.
2. Lisa I. Iezzoni, "Monitoring Quality of Care: What Do We Need To Know?" *Inquiry* 30 (Summer 1993): 113.
3. Telephone interview with Sherwood Lee, utilization review nurse/coordinator, Health Services Division, North Carolina Department of Correction, April 1994.
4. Douglas C. McDonald, *The Price of Punishment: Public Spending for Corrections in New York* (Boulder, Col.: Westview Press, 1980); Douglas C. McDonald, "The Cost of Corrections: In Search of the Bottom Line," in *Research in Corrections* (Washington, D.C.: National Institute of Corrections, 1989), p. 2.

Chapter 7

Conclusion

After the collapse of national health care reform efforts during the late summer of 1994, correctional managers can no longer afford to adopt a "wait and see" attitude. Health care provision in the larger society will not undergo in the near future the dramatic transformation that some reformers envisioned. No new financing arrangements will be established creating new revenue or cost-control opportunities for prison health administrators. Consequently, efforts to contain costs more effectively will require making changes in the existing ways of caring for prisoners.

The preceding chapters provide an inventory of methods developed by correctional managers to gain stronger control over health care spending. Some of these methods are well developed in a few places; others remain in the planning or early implementation stage. In addition, the discussion of cost-containment strategies developed in the larger community may suggest still other approaches that can be tailored to prison conditions. Faced with such a long list of possibilities, managers may have a difficult time knowing where to start. This chapter suggests a number of principles to assist managers interested in developing new procedures for controlling spending and at the same time maintaining or improving the quality of prisoner care.

The first priority is to determine the importance of containing costs relative to improving the quality and amount of health care services given to inmates. Not all cost-control efforts necessarily result in lower quality and access, but often there is a tension between the demands of the two missions. To be sure, it is difficult to choose one mission as having a higher value than the other. Rather than avoiding the question altogether or declaring that both are important, it is a useful exercise to pose the question for narrower segments of the prison health care system. Cost-containment efforts might be needed more urgently, for example, in the use of inpatient beds in community hospitals or in drug prescription practices. Once such segments are identified, the inventory of possible cost-containment procedures shrinks.

It is important to reiterate that quality of care and access to service need not be sacrificed to cost-control objectives. In a health care "system" that is fragmented, weakly controlled, and essentially "unmanaged," both cost control and quality of service may suffer. By establishing managers and giving them the institutional infrastructure to do their jobs—information and accounting systems, and staff—it is possible that the quality of care will increase at the same time that spending is controlled better. Or, if spending increases, the return for the dollar will be greater.

In determining which types of cost-control efforts to pursue, it is prudent to give the highest priority to things that pose the fewest threats to maintaining quality and access and that require the smallest changes in organization and practice. To put it another way, innovations that impose the smallest costs—both tangible and intangible—are preferred. An example is strengthening the capacity for auditing bills and reimbursements.

Also in this category are efforts to seek reduced prices for purchased goods and services. Reduced prices for goods can be achieved, for example, by joining buying groups and substituting generic drugs for proprietary drugs. Rather than paying usual and customary charges to hospitals and physicians, discounts may often be negotiated in advance. When negotiating payment agreements with service providers, preference should be given to arrangements that create incentives for cost-conscious practice. Admittedly, where there are too few local providers to make a competitive market, it may be impossible to negotiate discounts. In many places, however, prison officials are paying charges that could be negotiated down if a concerted and focused effort were made. In such negotiations, prison managers are served well by having information about the expected demand for particular types of services, which will reduce uncertainty for the providers and may result in more advantageous price agreements.

Reforms that impose a somewhat higher cost to the organization (in terms of managerial attention) are efforts to create in-house capacity so that the use of more expensive outside resources can be averted. Hiring staff physicians instead of buying the services of independent professionals piecemeal will lower costs if the demand for their services is sufficient. Creating intermediate-level facilities broadens the levels of care available to physicians and may shorten stays in expensive acute-care hospitals or keep patients out of them entirely. Diagnostic procedures may also be broken down so that some tasks and/or equipment can be brought in-house. A similar strategy is to identify needed facilities in other government agencies and negotiate sharing agreements when possible. In deciding whether to "make" specific services or to "buy" them, managers need to undertake some complex analyses to ensure that this course of action will be cost-effective, especially if it involves large capital investments. This again points to the need for good information systems to accumulate the data needed to make informed decisions about allocating precious resources.

Reforms designed to manage service utilization more effectively are somewhat more likely to affect the achievement of other important goals: providing care of sufficient quality and accessibility. (Instituting formularies to control prescription practices is probably the exception, however.) If choices are to be made among methods of managing utilization, it is sensible to focus first on services that are costing the department the most—which may be, for example, inpatient care in community hospitals. Some utilization management procedures may have little or no impact on the quality and accessibility of care. For example, requiring authorization before admission to an outside hospital may produce substantial savings, especially if these reviews result in the redirection of prisoners to other hospitals with which the department has negotiated lower rates. Continued-stay reviews may also result in shorter time spent in hospitals, especially if they are coupled with the expansion of in-house facilities for intermediate-level care.

Given the experience with utilization management in managed care organizations and insurance plans, it is advisable to have physicians serve as the reviewers whenever possible. Case-by-case reviews have the immediate objective of forc-

ing physicians to justify requests for services, but the longer-term goal is to educate them in cost-effective care and to change their practice patterns. Physicians are more likely to be accepted as reviewers than nonphysicians. Enlisting less-trained staff to serve as gatekeepers at the end of a telephone runs the risk of alienating physicians who have agreed to serve prisoners.

Attempts to limit service utilization by such means as instituting copayments/fees or by announcing very restrictive lists of available services should be undertaken with even more caution. These approaches seek to limit "unnecessary" care and services, but making the determination of what is or is not necessary is neither easy nor uncontroversial. If such methods are instituted, departments should also establish procedures for scrutinizing their effects closely.

Choosing to contract for comprehensive health care services—including the management of those services—is perhaps the most dramatic reform that can be undertaken, although it may result in accomplishing the twin objectives of containing costs and improving quality and accessibility of care. Whether this choice is prudent depends in large part on the alternative. If a department either does not have a well-developed health care system or faces obstacles that make it difficult to deliver services well, contracting for more than discrete services may be advisable. In this event, monitoring performance is especially important.

Finally, managers need information to do their jobs effectively. Developing well-designed information systems should not be the lowest priority but should be among the first tasks undertaken. Creating large-scale management information systems, however, is expensive. Because of the effort and expense required to automate the department's information record-keeping procedures, starting small is better than not starting at all. Computer-based data collection and reporting systems could be designed and implemented only to augment those cost-control and management procedures given the highest priority. The risk of starting small, however, is that the system designed and the equipment purchased may become obsolete before it can be enlarged in subsequent years. Careful attention should be given to creating a small system that can be built upon easily or transferred relatively easily to a larger and more powerful computing system.

Appendix A

Florida Department of Corrections' Health Services Information System:

Index to Health Reports Generated by the System

A			Ancillary Services, Volume	HSS-93
			Appointment Book	HSS-11
Accruals	HSS-77,	HSS-78	Appointments	HSS-11, HSS-12
Admissions, Detail	HSS-71, HSS-79,	HSS-72, HSS-84	Appointments, Overdue	HSS-15, GHS-54, DSS-54
Admissions, Summary	HSS-74, HSS-85	HSS-76,	Appointments, Statistics	GHS-54, DSS-54
Age, Inmates by	GHS-60		Approvals	GHS-21
Alien Inmates	HSS-51		Attendants	HSS-05
Ambulatory Care, Current	HSS-84			
Ambulatory Care, Detail	HSS-71, HSS-79	HSS-72,	B	
Ambulatory Care, Summary	HSS-73, HSS-76, HSS-80,	HSS-74, HSS-77, HSS-85	Birthdate, Inmates by	GHS-60
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American Sign Language	HSS-05		Bunk Passes	HSS-05
Ancillary Services, Current	HSS-84		Business Office Report	HSS-75
Ancillary Services, Detail	HSS-71, HSS-79	HSS-72,	C	
Ancillary Services, Summary	HSS-73, HSS-76, HSS-80,	HSS-74, HSS-77, HSS-85	CRD Release Date	HSS-51
			Callouts	HSS-12

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			Data Validation, Lab Tests	GHS-70
Classification/Medical Grade Reference List	STO-62		Data Validation, X-Rays	GHS-80
Communicable Diseases	GHS-20		Death Report	HSS-99
Community Care, by Paying	HSS-71, HSS-77, HSS-94	HSS-73, HSS-93,	Dental Encounters, QM Review	DSS-40
Community Care, by Sending	HSS-72, HSS-74,	HSS-79, HSS-76	Dental Grade	DSS-50 – DSS-54, HSS-53
Community Care Status	HSS-84		Dental Grade, Totals	HSS-54
Consultants	HSS-66		Dental Holds	HSS-05, HSS-53
Consults	HSS-71, HSS-77, HSS-80	HSS-72, HSS-73,	Dental Lab Log	DSS-70
Contracts	HSS-64		Dental Labs	DSS-50 – DSS-54
Costs, Detail	HSS-71, HSS-75, HSS-80	HSS-72, HSS-78,	Dental Procedures	DSS-30, DSS-29, HSS-29
Costs, Summary	HSS-73, HSS-93,	HSS-77, HSS-94	Dental Procedures, QM Review	DSS-41
Costs, Unpaid	HSS-70, HSS-73	HSS-90,	Diets	HSS-05
Custody Classifications	HSS-52		Discrepancy Report	DSS-50 – DSS-54, GHS-50 – GHS-54
Custody/Medical	HSS-52			
D				
D Grade, Select by	HSS-53		E	
D Grade, Totals	HSS-54		E Grade, Select by	HSS-53
D.R.s VS S Grade	MHS-95		E Grade, Totals	HSS-54
Daily Operations Log	DSS-29, GHS-29		Elderly Inmates	GHS-60
Daily Operations Statistics	DSS-29, GHS-29		Emergencies	GHS-40, DSS-40
Data Entry & Updates Report	HSS-75		Emergency Room, Detail	HSS-71, HSS-72, HSS-79, HSS-84
Data Validation	HSS-29, DSS-29	GHS-29,	Emergency Room, Summary	HSS-73, HSS-74, HSS-76, HSS-77, HSS-85
			Emergency Room, Volume	HSS-93
			F	
			Facility Profiles	STO-62

G

GH08 Screen, J Codes HSS-29, HSS-95
 GH10 Screen, J Codes HSS-70, HSS-80,
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 Gynecology Exam GHS-50 - GHS-54

H

H Grade, Select by HSS-53
 H Grade, Totals HSS-54
 HS20 Screen, J Codes HSS-97
 Health Appraisals GHS-18, GHS-19,
 GHS-50 - GHS-54
 Holds HSS-53, HSS-05
 Hospital Days HSS-73, HSS-76,
 HSS-94, HSS-85
 Hospital Utilization HSS-73, HSS-84,
 HSS-94
 Hospitalizations HSS-71, HSS-72,
 HSS-73, HSS-76,
 HSS-84, HSS-85
 Hospitalizations — Volume HSS-93, HSS-94

I

I Grade, Select by HSS-53, HSS-50
 I Grade, Totals HSS-54, HSS-50
 ICD-9 Codes, Select by GHS-20, HSS-93,
 HSS-94
 IQ less than 70 MHS-02
 Impaired Inmates, Listed HSS-50, HSS-53
 Impaired Inmates, Total HSS-54
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 Inside Care, J Codes HSS-95
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L

L Grade, Select by HSS-53
 L Grade, Totals HSS-54
 Lab, Dental (pending) DSS-50 - DSS-54
 Lab Log, Dental DSS-70
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 Lab Tests, Billing GHS-69
 Lab Tests, Select by GHS-70
 Labels HSS-45
 Lay-in, Infirmary HSS-84, HSS-85
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 DSS-70
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M

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Medical Grades, Listed by	HSS-53	Overdue Appointments	HSS-15, DSS-50 - DSS-54, GHS-50 - GHS-54
Medical Holds	HSS-05, HSS-53		
Medical Passes	HSS-05		
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Mental Health Grade	HSS-50, HSS-53, HSS-54	P	
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Monthly Report, Dental	DSS-30, HSS-29, DSS-29	P Grade, Totals	HSS-54
Monthly Report, Lab Tests	GHS-70, GHS-69	PPD Release Date	HSS-51
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Monthly Statistics, Staff	HSS-29	PULHESDXTI, Reported	GHS-19, GHS-50 - GHS-53, GHS-60, HSS-50, HSS-51, HSS-52, HSS-53, HSS-54, HSS-71, HSS-72, HSS-72, HSS-79, HSS-99
Monthly Statistics, Vendor	GHS-69, HSS-76		
Movements	HSS-55, HSS-56		
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National Health Lab	GHS-69	Passes	HSS-05
Needle & Blade Log	DSS-27, GHS-27	Past Due Appointments	HSS-15, GHS-50 - GHS-54, DSS-50 - DSS-54
No Shows	HSS-29, DSS-29, GHS-29, DSS-40, GHS-40	Past Due Apt., Statistics	GHS-54, DSS-54
O		Patient Treatment Log	HSS-29
Object Codes, List by	HSS-78	Pending Approvals	GHS-21
Object Codes, Reported	HSS-72, HSS-71, HSS-78, HSS-80, HSS-97	Physical Exams	GHS-40, GHS-50 - GHS-54
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Procedures by Provider	GHS-69		S Grade VS D.R. Reports	MHS-95
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Procedures, J Codes	HSS-96		S Grade, Totals	HSS-54
Prosthesis	HSS-05		Same Day Health Care	HSS-93
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Pushers	HSS-05		Shaving Passes	HSS-05
			Sick Call	HSS-29, DSS-29, GHS-29, GHS-40, DSS-40
Q			Special Considerations	HSS-05
Quality Management, Dental	DSS-40, DSS-53	DSS-41,	Specialists	HSS-66, HSS-68
Quality Management, Medical	GHS-40, GHS-53		Specialists, Inmates Seen by	HSS-71, HSS-72, HSS-80.
Quality X-Ray	GHS-69		Summary reports:	HSS-77, HSS-73
R			Staff Codes	HSS-64 - HSS-68
			Staff Codes, Outside Staff	HSS-66
RPRs	GHS-50 - GHS-54, GHS-70		Staff Codes, Select by	HSS-29, HSS-80, GHS-69
Radiology Log	GHS-80		Staging	GHS-21
Radiology Statistics	GHS-69		Statistics, Chronic Clinics	HSS-19, HSS-54
Random Selection	DSS-40, GHS-40	DSS-41,	Statistics, Community Care	HSS-76, HSS-73, HSS-85, HSS-93, HSS-94
Re-Exams, Dental	DSS-50 - HSS-11	DSS-54,	Statistics, Dental	DSS-54, DSS-29, DSS-30, HSS-29
Reader	HSS-05		Statistics, Medical	GHS-54, GHS-29, HSS-29
Receiving New Inmates	HSS-55, HSS-56		Statistics, Operation	GHS-29, DSS-29, HSS-29
Referrals, Status of	GHS-21		Statistics, PULHESDXTI	HSS-50, HSS-54
Refusals	HSS-29, GHS-29,	DSS-29, DSS-40	Statistics, Staff	HSS-29
Release Date	HSS-51			

T

T Grade, Select by	HSS-53	
T Grade, Totals	HSS-54	
Terminal Illness	HSS-53, HSS-54	HSS-50,
Total Inpatient Care	HSS-85	
Transfers	HSS-55	
Transfers, Summary	HSS-56	
TRD Release Date	HSS-51	
Treatment Log	HSS-29, GHS-29	DSS-29,

U

U Grade, Select by	HSS-53	
U Grade, Totals	HSS-54	
Notes: Unpaid Bills	HSS-70	
Unpaid Bills, by Date	HSS-90	
Utilization & Cost, Summary	HSS-73	
Utilization & Cost Report	HSS-71, HSS-79	HSS-72,
Utilization Review, Detail	HSS-84, HSS-72	HSS-79,
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V

Vendor Report	HSS-80, HSS-77	HSS-76,
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W

Wheelchairs	HSS-05	
Work Release Status	HSS-05	
Work Units (Dental)	DSS-30	

X

X Grade, Select by	HSS-53	
X Grade, Totals	HSS-54	
X-Ray Log	GHS-80	
X-Rays - Billing Statements	GHS-69	

Appendix B

Florida Department of Corrections' Health Services Information System: Monthly Workload and Utilization Report and Definitions of Data Items

REQUESTOR: DHLTHLT-OFFICE OF HEALTH SVCS CENTRAL OFFICE-HLT

SYSTEM AUTOMATIC PRINT

MESSAGE ID: DATE: TIME: PRIORITY:

TO: DHLTHLT - OFFICE OF HEALTH SVCS. - (OHS)
 OHS MESSAGE PRINTER
 CENTRAL OFFICE - HLT

FROM: HEALTH - HEALTH SERVICES
 HEALTH MAILING LIST
 CENTRAL OFFICE - HLT

SUBJECT: MONTHLY INSTITUTIONAL HEALTH SERVICES REPORT

NOTE: THIS IS A DRAFT EFORM

 INSTITUTION:
REPORT FOR MONTH OF:
NAME OF REPORTER:
DATE OF REPORT:

A. GENERAL

1. MEDICAL GRADES: (OBIS-HS)		
1a. Number of Medical Grade III		XXXXXX
1b. Number of Medical Grade IV		XXXXXX
1c. Percent of Medical Grades III and IV to Population		XXXXXX
2. DEATHS DURING MONTH:	#	
3. CLINIC ACTIVITY:		
3a. Nonemergency Clinic Visits	#	
3b. Nonemergency Clinic Use Rate (calculated)		XXXXXX
3c. Number Seen by Physician and Clinical Associate	#	
3d. Use Rate (calculated)		XXXXXX
3e. Number of Physician and Clinical Associate Duty Days	#	
3f. Number of Inmate Physical Exams	#	
3g. Number of Health Assessments	#	

4. EMERGENCY ACTIVITY:		
4a. Number of Emergency Visits to Medical Clinic		#
4b. Medical Emergency Use Rate (calculated)		XXXXXX
4c. Number Seen by Physician and Clinical Associate		#
4d. Number of Emergency (Sick Call) Visits to the Dental Clinic		#
4e. Dental Emergency Use Rate (calculated)		XXXXXX
4f. Number Seen by Dentist		#
4g. Number of Emergency Visits to the Mental Health Clinic		#
4h. Mental Health Emergency Use Rate (calculated)		XXXXXX
4i. Number Seen by Psychiatrist		#
5. CONFINEMENT:		
5a. Confinement Assessments		#
5b. Confinement Treatment Encounters		#
6. CHRONIC DISEASE CLINICS:		
6a. Hypertension	(OBIS-HS)	XXXXXX
6b. Seizure	(OBIS-HS)	XXXXXX
6c. Diabetic	(OBIS-HS)	XXXXXX
6d. Asthma	(OBIS-HS)	XXXXXX
6e. TB	(OBIS-HS)	XXXXXX
6f. General Medicine	(OBIS-HS)	XXXXXX
7. DIAGNOSTIC IMAGING PROCEDURES (Only Outpatients)		
7a. Number by Quality X-Ray		#
7b. Number by DC Institutions		#
7c. Number by Other Non-DC Institutions		#
7d. Number of CAT Scans		#
7e. Number of MRIs		#
7f. Number of Mammograms		#
7g. Number of Ultrasonograms		#
8. LAB PROCEDURES (Only Outpatients):		
8a. Number by National Health Lab		#
8b. Number by DC Institutions		#
8c. Number by Other Non-DC Institutions		#
9. EYE EXAMS:		
9a. Number Performed in DC Institutions		#
9b. Number Performed Outside DC Institutions		#

10. INFIRMARY ACTIVITY (Includes Medical Isolation):			
10a. Number of Beds (changes from RHSA)			XXXXXX
10b. Bed Days Available	(calculated)		XXXXXX
10c. Number of Admissions		#	
10d. Number of Discharges		#	
10e. Total Bed Days		#	
10f. Occupancy Rate	(calculated)		XXXXXX
10g. Average Length of Stay	(calculated)		XXXXXX
10h. Number of Inmates in Infirmary for Medical Observation		#	
11. MEDICAL DIETS:			
11a. Total Number of Medical Diets		#	
11b. Number of New Medical Diets Issued During the Month		#	
B. COMMUNITY CARE SUPPLEMENT			
All Community Care Supplement data is collected from the OBIS-HS system.			
C. PHARMACY SUPPLEMENT			
1. DISPENSED BY A DC PHARMACY:			
1a. New Legend		#	
1b. New OTC		#	
1c. Refill Legend		#	
1d. Refill OTC		#	
1e. Total DC Pharmacy		#	
1f. RX Per 1000	(calculated)		XXXXXX
2. DISPENSED BY A NON-DC PHARMACY:			
2a. New Legend		#	
2b. RX Per 1000	(calculated)		XXXXXX
3. PSYCHOTROPICS:			
3a. Unit Dose Solid		#	
3b. Unit Dose Liquid		#	
4. STOCK LINE ORDER:			
4a. Number Issued		#	
5. IV PREPS:			
5a. Number of IV Bags		#	
5b. Number Additions to IV Bags		#	

6. DORM OTC'S MEDICATIONS ISSUED:			
6a. Number of Acetaminophen Tablets (each tablet)		#	
6b. RX Per 1000	(calculated)		XXXXXX
6c. Number of Antacid Tablets (each tablet) or Liquid Dose (Each Dose)		#	
6d. RX Per 1000	(calculated)		XXXXXX
6e. Number of Lozenges (each lozenge)		#	
6f. RX Per 1000	(calculated)		XXXXXX
6g. Number of Pseudoephedrine Tablets (each tablet)		#	
6h. RX Per 1000	(calculated)		XXXXXX

D. EPIDEMIOLOGY SUPPLEMENT

1. TB CONTROL:			
1a. Number of PPDs Administered During the Month		#	
1b. Number of 0mm - 9mm (Insignificant)		#	
1c. Number of 5mm - 9mm (At Risk)		#	
1d. Number Positive - 10mm & Above		#	
1e. Number of PPDs Administered YTD	(calculated)		XXXXXX
1f. Number of positive PPDs YTD	(calculated)		XXXXXX
1g. Number of PPD Screening Appointments Overdue During the Month.		#	
1h. Number of Contact Converts		#	
1i. 12 Week (Retest) Converts		#	
1j. Annual (Retest) Converts		#	
1k. Number of X-Ray Follow-Ups During the Month		#	
1l. Number of Anergy or CMI Cellular Hypersensitivity Tests Administered		#	
1m. Number of Inmates Newly Placed on INH During the Month		#	
1n. Number of Inmates Who Completed INH During the Month		#	
1o. Number of New Active Cases		#	
1p. Number of New Active Cases YTD	(calculated)		XXXXXX
1q. Number of Active Cases Last Day		#	
1r. Number of Active TB with Positive HIV		#	

2. VENEREAL DISEASE:			
2a. Number of New Cases Gonorrhea During the Month		#	
2b. Number of New Cases Gonorrhea (GC) YTD	(calculated)	#	XXXXXX
2c. Number of GC Cultures During the Month		#	
2d. Number of New Cases Syphilis During the Month		#	
2e. Number of New Cases Syphilis YTD	(calculated)	#	XXXXXX
2f. Number of Active Syphilis with Positive HIV on Last Day During the Month		#	
2g. Number of Syphilis Follow-Up Visits During the Month		#	
2h. Number of STD Cases of Other than Syphilis and Gonorrhea		#	
3. HEPATITIS:			
3a. Number of New Cases Hepatitis		#	
3b. Number of New Cases YTD	(calculated)	#	XXXXXX
4. ANIMAL BITE:			
4a. Number of Animal Bites During the Month		#	
4b. Number of Animal Bites YTD	(calculated)	#	XXXXXX
5. INTESTINAL:			
5a. Number of Food Borne Diseases During the Month		#	
5b. Number Food Borne Diseases YTD	(calculated)	#	XXXXXX
6. NOSOCOMIAL:			
6a. Number of Nosocomial Cases During the Month		#	
6b. Number of Nosocomial Cases YTD	(calculated)	#	XXXXXX
7. HIV:			
7a. Number of HIV Tests (Elisa) Administered During the Month		#	
7b. Number of HIV Tests Administered YTD	(calculated)	#	XXXXXX
7c. Number of HIV Tests Positive During the Month		#	
7d. Number of HIV Tests Positive YTD	(calculated)	#	XXXXXX
7e. Incidence Rate Per Thousand	(calculated)	#	XXXXXX
7f. Number of Confirming HIV Tests During the Month		#	
7g. Number of Confirming HIV Tests YTD	(calculated)	#	XXXXXX
7h. Number of Confirming HIV Tests Positive During the Month		#	

7i. Number of Confirming HIV Tests Positive YTD	(calculated)		XXXXXX
7j. Number of Inmates at Institution Who Were HIV Positive Last Day During the Month		#	
7k. Prevalence Rate Per Thousand	(calculated)		XXXXXX
8. AIDS PER CDC CRITERIA:			
8a. Number of New AIDS Cases Diagnosed at the Institution During the Month		#	
8b. Number of New AIDS Cases Diagnosed YTD	(calculated)		XXXXXX
8c. Incidence Rate Per Thousand	(calculated)		XXXXXX
8d. Number of AIDS Cases at the Institution on the Last Day During the Month		#	
E. MENTAL HEALTH SUPPLEMENT			
1. INFIRMARY ACTIVITY (SUICIDE WATCH ISOLATION ONLY):			
1a. Number of Beds (Changes from RHSA)			XXXXXX
1b. Bed Days Available	(calculated)		XXXXXX
1c. Admissions		#	
1d. Discharges		#	
1e. Total Bed Days		#	
1f. Bed Use Rate	(calculated)		XXXXXX
1g. Number of Inmates in Infirmary		#	
2. CRISIS STABILIZATION ACTIVITY:			
2a. Number of Beds (Changes from OHS Mental Health)			XXXXXX
2b. Bed Days Available	(calculated)		XXXXXX
2c. Admissions		#	
2d. Discharges		#	
2e. Total Bed Days		#	
2f. Bed Use Rate	(calculated)		XXXXXX
3. TRANSITIONAL CARE ACTIVITY:			
3a. Number of Beds (Changes from OHS Mental Health)			XXXXXX
3b. Bed Days Available	(calculated)		XXXXXX
3c. Admissions		#	
3d. Discharges		#	
3e. Total Bed Days		#	
3f. Bed Use Rate	(calculated)		XXXXXX

F. DENTAL SERVICES SUPPLEMENT

All Dental Supplement data is collected from
OHS Dental Screens and OBIS-HS.

XXXXXX

1. Provider Days

#

G. HEALTH EDUCATION SUPPLEMENT

1. ACCESS:

1a. Orientation - Number of Inmates

#

1b. Orientation - Aggregate Number of
Training Hours

(calculated)

XXXXXX

2. AIDS EDUCATION FOR INMATES:

2a. Reception (Overview) - Number of Inmates

#

2b. Reception (Overview) - Aggregate
Number of Training Hours

(calculated)

XXXXXX

2c. 101 (Basic) - Number of Inmates

#

2d. 101 (Basic) - Aggregate Number of
Training Hours

(calculated)

XXXXXX

2e. 102 (Test Policy) - Number of Inmates

#

2f. 102 (Test Policy) - Aggregate Number
of Training Hours

(calculated)

XXXXXX

2g. Prerelease - Number of Inmates

#

2h. Prerelease - Aggregate Number of
Training Hours

(calculated)

XXXXXX

3. CANCER EDUCATION:

3a. Self-Exam (Female) - Number of Inmates

#

3b. Self-Exam (Female) - Aggregate Number
of Training Hours

(calculated)

XXXXXX

3c. Self-Exam (Male) - Number of Inmates

#

3d. Self-Exam (Male) - Aggregate Number of
Training Hours

(calculated)

XXXXXX

3e. Tobacco - Number of Inmates

#

3f. Tobacco - Aggregate Number of Training
Hours

(calculated)

XXXXXX

4. DENTAL EDUCATION:

4a. Orientation/Group OHI - Number of Inmates

#

4b. Orientation/Group OHI - Aggregate Number of
Training Hours

(calculated)

XXXXXX

5. CHRONIC DISEASE CLINIC EDUCATION:			
5a. Hypertension - Number of Inmates		#	
5b. Hypertension - Aggregate Number of Training Hours	(calculated)		XXXXXX
5c. Seizure - Number of Inmates		#	
5d. Seizure - Aggregate Number of Training Hours	(calculated)		XXXXXX
5e. Diabetes - Number of Inmates		#	
5f. Diabetes - Aggregate Number of Training Hours	(calculated)		XXXXXX
5g. Asthma - Number of Inmates		#	
5h. Asthma - Aggregate Number of Training Hours	(calculated)		XXXXXX
5i. TB - Number of Inmates		#	
5j. TB - Aggregate Number of Training Hours	(calculated)		XXXXXX
5k. General Medicine - Number of Inmates		#	
5l. General Medicine - Aggregate Number of Training Hours	(calculated)		XXXXXX
6. COMMUNICABLE DISEASE EDUCATION:			
6a. Hepatitis - Number of Inmates		#	
6b. Hepatitis - Aggregate Number of Training Hours	(calculated)		XXXXXX
6c. STDs - Number of Inmates		#	
6d. STDs - Aggregate Number of Training Hours	(calculated)		XXXXXX
7. PRENATAL EDUCATION:			
7a. Prenatal - Number of Inmates		#	
7b. Prenatal - Aggregate Number of Training Hours	(calculated)		XXXXXX
H. FEMALE SUPPLEMENT			
1. PREGNANCIES:			
1a. Number of New Inmate Pregnancies During the Month		#	
1b. Number of New Pregnancies YTD	(calculated)		XXXXXX
1c. Number of Pregnant Inmates at the Institution on Last Day During the Month		#	
1d. Number of 1c. in 1st Trimester		#	
1e. Number of 1c. in 2nd Trimester		#	
1f. Number of 1c. in 3rd Trimester		#	

-
- 2. INFANT BIRTHS/DEATHS DURING THE MONTH:
 - 2a. Number of Live Births #
 - 2b. Number of Infant Deaths #

 - 3. TESTS DURING THE MONTH:
 - 3a. Number of Mammograms #
 - 3b. Number of Sonograms #
 - 3c. Number of Biopsies #
 - 3d. Number of Pap Smears #
 - 3e. Number of Abnormal Pap Smears #

 - 4. MEDICATIONS DURING THE MONTH:
 - 4a. Number of Ibuprofen, 200mg Tablets #
 - 4b. Number of Tablets Per Thousand (calculated) XXXXXX

MONTHLY WORKLOAD AND UTILIZATION REPORT

ITEM DEFINITIONS

A. GENERAL:

Workload: (Collected from OBIS-HS)

Total inmate workload of the unit: Sum of average daily population of all correctional institutions, community facilities, etc., assigned to the health unit (see Workload Supplement for detail).

1. *Medical Grades:* (Collected from OBIS-HS)

- a. Number of Medical Grade X-III: Total number of medical grade IIIs in the institution's workload on the last working day of the month.
- b. Number of Medical Grade X-IV: Total number of medical grade IVs in the institution's workload on the last working day of the month.
- c. Percent of Medical Grades to Population: Total medical grade III and IV inmates as a percent of total institutional workload population. (Calculated by Planning/HIS from data reported in 1a. and 1b.)

2. *Deaths:*

Number of deaths from all causes during the month (excludes executions).

3. *Clinic Activity:*

- a. Nonemergency Clinic Visits: Total of all inmate visits to the clinic. (Count visits, NOT encounters.) A medical visit, such as for sick call, is the visit by the inmate and does not include separate encounters by various providers during the medical visit (i.e., vital signs, history, etc.).

Includes: sick call visits; walk-in visits; all appointments (physical exams, lab visits, chronic disease clinics, etc.); medication administration (for example, an inmate's request for a renewal prescription, during which time the inmate's medical record and need for the medication is reviewed to determine whether or not medication is to be continued); and health appraisals for grades III and IV;

Does NOT include: inmate declared emergencies; medication issue (assisting in providing a single dose of a medication to an inmate); health assessments for transfer; EOS, etc. (these assessments are counted at A. 3g. [confinement assessments at A. 5a.]).

- b. Nonemergency Clinic Use Rate per Inmate: Annualized rate of nonemergency clinic visits per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
- c. Number Seen by Physician and CA: Number of inmates enumerated in 3a. who were seen by a departmental physician or clinical associate.
- d. Number Seen by Physician and CA Use Rate per Inmate: Annualized rate of nonemergency clinic visits seen by a physician or clinical associate per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
- e. Number of Physician and CA Duty Days (FTE): Actual total FTE days of physicians and clinical associates providing direct patient care during the month at the institution.
- f. Number of Inmate Physical Exams: Total number of inmate physical examinations (DC4-707) performed during the month.
- g. Number of Health Assessments: Number of health assessments performed, as follows:

Includes: health assessments for transfers (in and out); and health assessments for EOS.

Does NOT include: mandatory 90-day health appraisals for grades III and IV, or pre- or concurrent confinement assessments (these are counted at A. 5a.).

4. *Emergency Activity:*

- a. Number of Emergency Visits to the Medical Clinic: Number of inmate visits to medical clinic on inmate declared emergency plus emergency care provided by medical personnel outside the clinic (e.g., code blue).
- b. Medical Emergency Use Rate per Inmate: Number of emergency visits to the medical clinic (item 4a.) annualized per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
- c. Number Seen by Physician and CA: Number of emergency visits to the medical clinic (item 4a.) where inmate was seen by the physician and/or CA.

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- d. Number of Emergency (Sick Call) Visits to the Dental Clinic: Number of inmate visits to the dental clinic on inmate declared emergency plus emergency dental care provided by dental health personnel outside the clinic.
 - e. Dental Emergency Use Rate per Inmate: Number of emergency visits to the dental clinic (item 4d.) annualized per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
 - f. Number Seen by Dentist: Number of emergency visits to the dental clinic (item 4d.) where inmate was seen by a dentist.
 - g. Number of Emergency Visits to the Mental Health Clinic: Number of emergency visits to the mental health clinic on inmate declared emergency plus emergency mental health care provided by mental health personnel outside the clinic (e.g., code blue).
 - h. Mental Health Emergency Use Rate per Inmate: Number of annualized emergency visits to the mental health clinic (item 4g.) where inmate was seen by mental health staff. (Calculated by Planning/HIS from data reported.)
 - i. Number Seen by Psychiatrist: Number of mental health emergency visits seen by a psychiatrist.

5. Confinement:

- a. Confinement Assessments: The number of health assessments performed prior to or concurrent with an inmate's confinement. Includes mental health assessments.
- b. Confinement Treatments: Number of inmates treated for a complaint while in confinement, plus those taken to the clinic for treatment while in confinement. Does NOT include the number of inmates seen by health staff during confinement rounds where there was no treatment. Does NOT include issue of medications.

6. Chronic Disease Clinics: (Collected from OBIS-HS)

Number of inmates in the institutional workload assigned to each clinic on the last working day during the month.

- a. Hypertension
- b. Seizure
- c. Diabetes
- d. Asthma

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- e. TB
- f. General Medicine
- g. Immunodeficiency Clinic
7. *Diagnostic Imaging Procedures (Only Outpatients):*
- a. Number by Quality X-Ray: Number of x-ray procedures completed on inmates in the institutional workload by Quality X-Ray during the month.
- b. Number by DC Institutions: Number of x-ray procedures completed on inmates in the institutional workload by DC institutions during the month.
- c. Number by Other Non-DC Institutions: Number of x-ray procedures completed on inmates in the institutional workload by other non-DC agencies during the month.
- d. Total Procedures: Total of 7a. – 7c. (Calculated by Planning/HIS from data reported.)
- e. Procedure Use Rate per Inmate: Number of procedures annualized per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
- f. Number of CAT Scans: Number of CAT Scans performed on inmates in the institutional workload during the month.
- g. Number of MRIs: Number of MRIs performed on inmates in the institutional workload during the month.
- h. Number of Mammograms: Number of mammograms (male and female) performed on inmates in the institutional workload during the month.
- i. Number of Ultrasonograms: Number of ultrasonograms (male and female) performed on inmates in the institutional workload during the month.
8. *Lab Procedures (Only Outpatients):*
- a. Number by National Health Lab: Number of lab procedures completed by National Health Lab for inmates in the institutional workload during the month.
- b. Number by DC Institutions: Number of lab procedures completed by DC institutions for inmates in the institutional workload during the month.
- c. Number by Other Non-DC Institutions: Number of lab procedures completed by other non-DC Institutions for inmates in the institutional workload during the month.

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- d. Total Procedures: 8a. – 8c. (Calculated by Planning/HIS from data reported.)
- e. Use Rate per Inmate: Number of procedures annualized per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
9. *Eye Exams*:
- a. Number Performed in DC Institutions: Number of eye exams performed in the institution on inmates in the institutional workload by ophthalmologist or optometrist and entered on HS20 screen as consult (SP-OH or SP-OP).
- b. Number Performed Outside DC Institutions: Number of eye exams and consultations performed outside the institution on inmates in the institutional workload by non-DC providers and entered on HS20 screen as consult (SP-OH or SP-OP).
10. *Infirmary Activity (Includes Medical Isolation)*:
- a. Number of Beds: Total bed capacity of the institutional infirmary. Includes beds used solely for medical isolation. (Collected from Regional Health Services Administrators as changes are made.)
- b. Bed Days Available: Total bed days available during the month. (Calculated by Planning/HIS based on number of days in the reporting month.)
- c. Number of Admissions: Number of inmates formally admitted to the infirmary (an infirmary admission record was created).
- d. Number of Discharges: Number of inmates discharged after admission. Those admitted directly to infirmary and those after a 24-hour stay for observation (HSB 15.03.26 Infirmiry Services).
- e. Total Bed Days: Aggregate number of days of infirmary care provided during the month to inmates discharged from the infirmary. Note: Discharge days are counted the same way hospital discharge days are counted, i.e., count day of admission, do not count day of discharge. Days are only counted on discharge of patient.
- f. Occupancy Rate: The percentage of occupancy of infirmary. Include all days for inmates who were discharged during the month (regardless of when admitted), but do NOT include any inmates who were in the infirmary solely for observation and who were NOT formally admitted. (Calculated by Planning/HIS based on number of days available and total bed days reported.)
- g. Average Length of Stay: Average stay, in days, for all inmates discharged during the month. (Calculated by Planning/HIS based on total bed days and discharges reported.)

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- h. Number of Inmates in Infirmary for Medical Observation: Total number of inmates assigned to a short (less than 24 hours) stay in the infirmary as stated in HSB 15.03.26.

11. *Medical Diets*:

- a. Total Number of Medical Diets: Total number of inmates in the institutional workload who were on a prescribed medical diet for any part during the month.
- b. Number of New Medical Diets Issued: Total number of new medical diets prescribed by physicians or dentists during the month.

B. COMMUNITY CARE SUPPLEMENT: (Collected from OBIS-HS)

1. *Hospital Activity*:

- a. Total Number of IPE Admissions: This is the number of Inpatient Emergency Admissions (IPE) during the month recorded on HS20.
- b. Total Number of IPE Discharges: during the month recorded on HS20.
- c. Total Number of IPE Discharge Days: during the month recorded on HS20 associated with discharges.
- d. Average Length of Stay (IPE)
- e. Total Number of IPS Admissions: This is the number of Inpatient Scheduled Admissions (IPS) during the month recorded on HS20.
- f. Total Number of IPS Discharges: during the month recorded on HS20.
- g. Total Number of IPS Discharge Days: during the month recorded on HS20 associated with discharges.
- h. Average Length of Stay (IPS)
- i. Total Admissions (IPE and IPS): during the month.
- j. Total Discharges (IPE and IPS): during the month.
- k. Total Discharge Days (IPE and IPS): during the month.
- l. Average Length of Stay—All Hospitalizations
- m. Use Rate (IPE and IPS) Hospital Bed Days per 1000: Number of hospital discharge days (IPE and IPS) per 1000 inmates in the workload.

2. *Ambulatory Surgery:*

- a. *Number of Ambulatory Outpatient (OP) Surgical Procedures*: Performed and posted to HS20 during the month. Note: include only outpatient surgeries required to be performed in an organized surgical site or facility.
- b. *Use Rate Ambulatory Surgery per 1000*: Number of ambulatory surgical procedures performed per 1000 inmates in the workload.

3. *ER Visits:*

- a. *Emergency Room Visits*: Number of inmate visits to hospital emergency rooms conducted and posted to HS20 during the month.
- b. *Use Rate ER Visits per 1000*: Annualized number of hospital emergency room visits per 1000 inmates in the workload.

4. *Specialty Consults: (SP-XX)*

- a. *Specialty Consults*: Number of total referrals to community providers. Includes those conducted in the community and those conducted in the correctional institution and posted to the HS20 screen as SP-XX, including eye exams that are also reported at A. 9.
- b. *Use Rate Specialty Consults per 1000*: Annualized number of specialty consults per 1000 inmates in the workload. May be expressed by specialty or specialty groupings, e.g., medical, dental, etc.

5. *Ancillary Services: (IA-XX)*

- a. *Ancillary Services*: Number of ancillary services conducted and posted to the HS20 screen during the month. An ancillary service is a health service procedure, device or test generally ordered by a health practitioner. An ancillary service is assessed as a separate encounter and may include facility, professional, service and/or device charges on one or more bills.
- b. *Use Rate Ancillary Services per 1000*: Annualized number of ancillary services per 1000 inmates in the workload. (Calculated by Planning/HIS from data reported.)

C. PHARMACY SUPPLEMENT:

1. *Dispensed by a DC Pharmacy:*

- a. *Medical Rx*: A prescription for outpatients or medication order for inpatients from a licensed practitioner dispensed by a DC Pharmacist. The total is from the computerized

report "PRESCRIPTION LOG REPORT FOR PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION SUMMARY," listed as PLAN 1: Medical Prescription.

- b. Code J Rx: Prescriptions for HIV outpatient patients from a licensed practitioner dispensed by a DC Pharmacist. The total is from the computerized report "PRESCRIPTION LOG REPORT FOR PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION SUMMARY." The total is listed as PLAN 2: Code J.
- c. Dental Rx: Prescriptions prescribed by licensed dental practitioner for dental patients. The total is from the computerized report "PRESCRIPTION LOG REPORT FOR PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION SUMMARY." The total is listed as PLAN 3: Dental Prescriptions.
- d. Mental Health Rx: Prescriptions prescribed by licensed mental health practitioner. The total is from the computerized report "PRESCRIPTION LOG REPORT FOR PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION SUMMARY." The total is listed as PLAN 4: Mental Health.
- e. Dorm OTC Meds: Orders for over-the-counter medications (OTC) used in the dorms as stated in HSB 15.03.11 Provision and Use of Over-the-Counter Medications in Housing Confinement Areas and Selected Outside Squad Areas. The total is from the computerized report "PRESCRIPTION LOG REPORT FOR PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION SUMMARY." The total is listed as PLAN 5: Dorm OTC Meds.
- f. Line Order Meds: Orders for pharmaceuticals used at the institution other than individual prescriptions. The total is from the computerized report "PRESCRIPTION LOG REPORT FOR THE PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTIONS SUMMARY." The total is listed as PLAN 6: Line Order Meds.
- g. Total New Rx: The total number of new prescriptions dispensed within monthly period by the institution. The total is from the computerized report "PRESCRIPTION LOG REPORT XX/01/9X THROUGH XX/31/9X, PRESCRIPTION RECAP." The totals may not equal lines 1a. through 1f. because this total is for all prescriptions dispensed by the institution including work camps, other institutions.
- h. Total Refill Rx: The total number of refill prescriptions dispensed by institution's DC pharmacist. The total is from the computerized report "PRESCRIPTION LOG REPORT FOR THE PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION RECAP."
- i. Total Fills: The total number of prescriptions dispensed at the institution by DC pharmacist, new and refills. The total is from the computerized report "PRESCRIPTION LOG REPORT FOR PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION RECAP."

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- j. Average Price: This is the average price of a prescription dispensed by a DC pharmacist at the institution for inmate use for the reporting month. The average price is from the computerized report "PRESCRIPTION LOG REPORT FOR THE PERIOD XX/01/9X THROUGH XX/31/9X, PRESCRIPTION RECAP."
- k. Average Daily Fills: The average number of prescriptions dispensed in one working day for the month reporting. This is calculated by dividing 1i. (total fills) by the number of working days for the reporting month. (1i./monthly work days).
- l. Rx Use Rate per Inmate: Annualized number of prescriptions (total fills) dispensed by a DC pharmacy per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
2. Number of Rx Dispensed by a Non-DC Pharmacy:
- a. New Legend: An original prescription or medication order from a licensed practitioner. Prescription medication which has the following legend on the manufacturer's label "Caution: Federal Law Prohibits Dispensing Without a Prescription."
- b. Rx Use Rate per Inmate: Annualized number of new legend prescriptions dispensed by a non-DC pharmacy per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
3. Psychotropics:
- a. Unit Dose Solid: Tablets or capsules prepared by the pharmacy which are individually packaged with the name of the medication, strength, lot number, expiration date, and name of manufacturer, if generic.
- b. Unit Dose Liquid: Liquid medications prepared by the pharmacy, individually packaged with the name of the medication, strength, lot number, expiration date, and name of manufacturer, if generic.
4. IV Preps:
- Intravenous preparations prepared by the pharmacist.
- a. Number of IV Bags: The total number of intravenous bags prepared by the pharmacist.
- b. Number of Additions to IV Bags: This is the total number of each additive to the bags.
5. Dorm OTC Medications Issued:
- These are over-the-counter court-ordered medications issued to dormitories and confinement areas.

The medications listed below are to be counted by each tablet, lozenge, or cup of liquid, not by the package itself.

- a. Number of Acetaminophen Tablets (Each Tablet): Total number of tablets issued by the pharmacy to dorm.
- b. Acetaminophen Use Rate per Inmate: Annualized number of acetaminophen tablets used per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
- c. Number of Antacid Tablets (Each Tablet) or Liquid Dose (Each Dose)
- d. Antacid Use Rate per Inmate: Annualized number of antacid or liquid doses used per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
- e. Number of Lozenges (Each Lozenge)
- f. Lozenge Use Rate per Inmate: Annualized number of lozenges used per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)
- g. Number of Pseudoephedrine Tablets (Each Tablet): Total number of tablets issued by the pharmacy to dorm.
- h. Pseudoephedrine Use Rate per Inmate: Annualized number of pseudoephedrine used per inmate in the institutional workload. (Calculated by Planning/HIS from data reported.)

D. EPIDEMIOLOGY SUPPLEMENT:

1. TB Control:

- a. Number of PPDs Administered
- b. Number of 0mm–9mm: (Insignificant) 5mm–9mm is insignificant for individuals who are not at risk.
- c. Number of 5mm–9mm: (At Risk) for contacts to infectious cases; persons with abnormal CXR and/or persons with HIV+ status.
- d. Number of Positive – 10mm and Above
- e. Number of PPDs Administered YTD: Aggregate of 1a. above. (Calculated by Planning/HIS from data reported. This also includes current month.)
- f. Number of Positive PPDs YTD: Aggregate of 1c. and 1d. above. (Calculated by Planning/HIS from data reported. This also includes current month.)

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- g. Number of PPD Screening Appointments Overdue
 - h. Number of Contact Converts: Number of positive PPDs (5–9mm at risk and 10mm and above) found in inmates tested immediately after identification of contact with a case of Tuberculosis.
 - i. 12-Week (Retest) Converts: Number of positive PPDs (5–9mm at risk and 10mm and above) found in inmates tested 12 weeks after a previous test.
 - j. Annual (Retest) Converts: Number of positive PPDs (5–9mm at risk and 10mm and above) found in inmates tested in routine annual retest.
 - k. Number of X-Ray Follow-Ups
 - l. Number of Anergy or CMI Cellular Hypersensitivity Tests Administered
 - m. Number of Inmates Newly Placed on INH
 - n. Number of Inmates on INH on Last Day
 - o. Number of Inmates who Completed INH
 - p. Number of New Active Cases: Number of newly active cases of TB diagnosed (ICD 011-18.96 cases that were entered into OBIS-HS) at the institution during the month. Include inmates with reactivated TB recognized and started on treatment during the month.
 - q. Number of New Active Cases YTD: Number of (new) active TB cases at the institution year-to-date. (Calculated by Planning/HIS from data reported. This also includes current month.)
 - r. Number of Active Cases on Last Day: Number of active TB cases at the institution on the last day of the reporting period. This includes any inmate who is currently receiving anti-TB medications.
 - s. Number of Active TB With Positive HIV: Number of active TB cases at the institution (identified in 1r.) who also exhibit a positive HIV on the last day of the reporting period.

2. Venereal Disease:

- a. Number of New Cases Gonorrhea
- b. Number of New Cases Gonorrhea (GC) YTD: (Calculated by Planning/HIS from data reported. This also includes current month.)
- c. Number GC Cultures

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- d. Number of New Cases Syphilis
 - e. Number of New Cases Syphilis YTD: (Calculated by Planning/HIS from data reported. This also includes current month.)
 - f. Number of Active Syphilis with Positive HIV on Last Day: Number of active syphilis patients are those who started on medication therapy during the month.
 - g. Number of Syphilis Follow-Up Visits
 - h. Number of Cases Other than Syphilis and Gonorrhea
3. *Hepatitis:*
- a. Number of New Cases of Hepatitis: Include only those cases with new onset of acute, active disease. (Do not include inmates with newly identified positive antibody tests without evidence of active disease.)
 - b. Number of New Cases of Hepatitis YTD: (Calculated by Planning/HIS from data reported. This includes current month.)
4. *Animal Bites:*
- a. Number of Animal Bites
 - b. Number of Animal Bites YTD: (Calculated by Planning/HIS from data reported. This includes current month.)
5. *Intestinal:*
- a. Number of Gastroenteritis (Infectious) Diseases: Number of inmates who have gastroenteritis (thought to be infectious) based on the infection control definition found in the Infection Control Manual.
 - b. Number of Gastroenteritis (Infectious) Diseases YTD: (Calculated by Planning/HIS from data reported. This also includes current month.)
6. *HIV:*
- a. Number of HIV Tests (ELISA) Administered
 - b. Number of HIV Tests (ELISA) Administered YTD: (Calculated by Planning/HIS from data reported. This also includes current month.)
 - c. Number of HIV Tests (ELISA) Positive

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- d. Number of HIV Tests (ELISA) Positive YTD: (Calculated by Planning/HIS from data reported. This also includes current month.)
 - e. Number of Confirming HIV Tests (Western Blot)
 - f. Number of Confirming HIV Tests YTD (Western Blot): (Calculated by Planning/HIS from data reported. This includes current month.)
 - g. Number of Confirming HIV Tests Positive (Western Blot)
 - h. Incidence Rate per Thousand Tested in 6a.: Number of inmates at institution with a positive HIV during the month (data from 6g.) per 1000 tests administered from 6a. (Calculated by Planning/HIS from data reported.)
 - i. Number of Confirming HIV Tests Positive YTD (Western Blot): (Calculated by Planning/HIS from data reported. This includes current month.)
 - j. Number of Inmates at Institution Who Were Confirmed HIV Positive on Last Day: Count all inmates with a positive HIV test including those who are diagnosed with AIDS.
 - k. Prevalence Rate per Thousand: Number of inmates at institution who were HIV positive on last day of the reporting period (data from 6j.) per 1000 inmates in the institutional workload. (Calculated by Planning/HIS from data reported.)

7. AIDS CDC Criteria:

- a. Number of New AIDS Cases Diagnosed at the Institution
- b. Number of New AIDS Cases Diagnosed YTD: (Calculated by Planning/HIS from data reported. This includes current month.)
- c. Incidence Rate per Thousand: Number of new AIDS cases diagnosed during this report (data from 7a.) per 1000 inmates in the institutional workload. (Calculated by Planning/HIS from data reported.)
- d. Number of AIDS Cases at the Institution on Last Day
- e. Prevalence Rate per 1000: Number of inmates at institution who met the AIDS CDC criteria on last day of reporting period. (Data from 7d. per 1000 inmates in the institution's workload.) (Calculated by Planning/HIS from data reported.)

E. MENTAL HEALTH SUPPLEMENT:

Total inmate workload of the unit: Sum of average daily population of all correctional institutions, community facilities, etc., assigned to the health unit (see Workload Supplement for detail).

1. *Mental Grades:* (Collected from OBIS-HS)
 - a. Number of Mental Grade S-2: Total number of grade S-2s in the institution's workload on the last working day of the month.
 - b. Number of Mental Grade S-3: Total number of grade S-3s in the institution's workload on the last working day of the month.
 - c. Number of Mental Grade S-4: Total number of grade S-4s in the institution's workload on the last day of the month.
 - d. Number of Mental Grade S-5: Total number of grade S-5s in the institution's workload on the last day of the month.
 - e. Total Number of Mental Grade S-2, S-3, S-4, and S-5: Total number of grade S-2, S-3, S-4, and S-5 in the institution's workload on the last day of the month.
 - f. Percent of Mental Grades to Population: Total mental grades S-2, S-3, S-4, S-5 as a percent of total institutional workload population. (Calculated by Planning/HIS from data reported in workload and 1e.)

2. *Infirmery Activity (Suicide Watch Isolation Only):*

Note: Those institutions with CSU or TCU Program Beds do not report activity here.

- a. Number of Beds: Number of suicide watch beds available in the clinic and approved for suicide watch. (Collected from Regional Health Services Administrators as changes are made.)
- b. Bed Days Available: Number of suicide watch beds multiplied by number of days in the period. (Calculated by Planning/HIS based on number of days during the month.)
- c. Number of Admissions: Number of inmates admitted to suicide watch for a stay of 24 hours or more.
- d. Number of Discharges: Number of inmates discharged after a stay of 24 hours or more.

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- e. Total Bed Days: Aggregate number of discharge days of suicide watch provided during the month to inmates discharged from suicide watch. Note: Discharge days are counted the same way hospital discharge days are counted, i.e., count day of admission, do not count day of discharge. Days are only counted on discharge of patient.
 - f. Bed Use Rate: The percentage of occupancy of suicide watch. Include all days for inmates who were discharged in the period (regardless of when admitted). (Calculated by Planning/HIS from data reported.)
 - g. Number of Inmates in Infirmary on Last Day: Total number of inmates on last day of month assigned to a short stay (less than 24 hours) in a suicide watch approved bed in the infirmary.

Note: CSU and TCU Program units do not report here.

3. *Crisis Stabilization Activity:*

Note: Only CSU Program Beds report here.

- a. Number of Beds: Number of crisis stabilization beds available in the Crisis Stabilization Unit. (Collected from OHS Central Office Mental Health as changes are made.)
- b. Bed Days Available: Number of crisis stabilization beds multiplied by number of days in the period. (Calculated by Planning/HIS based on number of days in the reporting month.)
- c. Number of Admissions: Number of inmates admitted to crisis stabilization for a stay of 24 hours or more.
- d. Number of Discharges: Number of inmates discharged after a stay of 24 hours or more.
- e. Total Bed Days: Aggregate number of discharge days of crisis stabilization care provided during the month to inmates discharged from crisis stabilization. Note: Discharge days are counted the same way hospital discharge days are counted, i.e., count day of admission, do not count day of discharge. Days are only counted on discharge of patient.
- f. Bed Use Rate: The percentage of occupancy of crisis stabilization. Include all days for inmates who were discharged in the period (regardless of when admitted), but do NOT include lay-ins. (Calculated by Planning/HIS based on number of days available and total bed days reported.)

4. *Transitional Care Activity:*

Note: Only TCU Program Beds report here.

- a. Number of Beds: Number of transitional care beds available in the Transitional Care Unit. (Collected from OHS Central Office Mental Health as changes are made.)
- b. Bed Days Available: Number of transitional care beds multiplied by number of days in the period. (Calculated by Planning/HIS based on number of days in the reporting month.)
- c. Number of Admissions: Number of inmates admitted to transitional care for a stay of 24 hours or more.
- d. Number of Discharges: Number of inmates discharged after a stay of 24 hours or more.
- e. Total Bed Days: Aggregate number of discharge days of transitional care provided during the month to inmates discharged from transitional care. Note: Discharge days are counted the same way hospital discharge days are counted, i.e., count day of admission, do not count day of discharge. Days are only counted on discharge of patient.
- f. Bed Use Rate: The percentage of occupancy of transitional care. Include all days for inmates who were discharged in the period (regardless of when admitted), but do not include lay-ins. (Calculated by Planning/HIS based on number of days available and total bed days reported.)

5. *CMHI Activity:*

Note: Only CMHI Program Beds report here.

- a. Number of Beds: Number of CMHI beds available. (Collected from OHS Central Office Mental Health as changes are made.)
- b. Bed Days Available: Number of CMHI beds multiplied by number of days in the period. (Calculated by Planning/HIS based on number of days in their reporting month.)
- c. Number of Admissions: Number of inmates admitted to CMHI care for a stay of 24 hours or more.
- d. Number of Discharges: Number of inmates discharged after a stay of 24 hours or more.

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- e. Total Bed Days: Aggregate number of discharge days of CMHI care provided during the month to inmates discharged from CMHI care. Note: Discharge days are counted the same way hospital discharge days are counted, i.e., count day of admission, do not count day of discharge. Days are only counted on discharge of patient.
- f. Bed Use Rate: The percentage of occupancy of CMHI care. Include all days for inmates who are discharged in the period (regardless of when admitted), but do not include lay-ins. (Calculated by Planning/HIS based on number of days available and total bed days reported.)
- g. Average Length of Stay: Average stay in days, for all inmates discharged during the month. (Calculated by Planning/HIS based on total bed days and discharges reported.)
- h. Number of Inmates in CMHI on Last Day

F. DENTAL SERVICES SUPPLEMENT: (Collected from OBIS-HS)

Dental Productivity Units

1. Provider Days: Actual FTE days spent by dentists providing direct patient care during the month. Report in increments of half days only, i.e., 10, 12.5, 13, 13.5, etc.
2. Diagnostic Units: Initial and periodic exams, emergencies, x-rays, study models, treatment plans, prescriptions. Total dental productivity units performed.
3. Preventive Units: Prophylaxis, scaling, fluoride treatments, mechanical dental diets and oral hygiene instructions. Total dental productivity units performed.
4. Restorative Units: Amalgam fillings, resin fillings, single crowns. Total dental productivity units performed.
5. Endodontics Units: Pulp caps, root canals. Total dental productivity units performed.
6. Periodontics Units: Gingivectomies, grafting, splints, other periodontal procedures. Total dental productivity units performed.
7. Prosthodontics Removable Units: Complete dentures, partial dentures, relines. Total dental productivity units performed.
8. Prosthodontics Fixed Units: Bridges. Total dental productivity units performed.

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9. Oral Surgery Units: Extractions, fractures, pathology, other oral surgery procedures. Total dental productivity units performed.
 10. Orthodontics Units: Orthodontic therapy. Total dental productivity units performed.
 11. Adjunctive General Services Units: Palliative treatment, consultations, ward visits, occlusal adjustments. Total dental productivity units performed.
 12. Total Units: Total dental productivity units produced during the collection period.
 13. Units/Provider Days: Total dental productivity units divided by provider days (item 1). Dental productivity per patient care day. (Calculated by Planning/HIS from data reported.)
 14. Total Patients Treated: Total number of inmate contacts by the dental staff. Includes routine, emergency, and sick call appointment visits.

G. HEALTH EDUCATION SUPPLEMENT:

1. *Access:*

Orientation—Number of Inmates: Number of inmates receiving health care orientation during the month documented in health record and attendance sheet.

2. *AIDS Education for Inmates:*

a. Reception (Overview)—Number of Inmates: Brief AIDS education overview taught during reception process. (Reception Centers only) Number of inmates receiving training during the month.

b. 101 (Basic)—Number of Inmates: Standardized, basic AIDS classes for permanent party inmates. All inmates must have this class documented in medical record. Number of inmates taught during the month.

c. 102 (Test Policy)—Number of Inmates: Number of inmates receiving briefing on right to volunteer for HIV testing during the month. (Note: Does not include pre- and posttest counseling.)

d. Prerelease—Number of Inmates: Educational program or information on AIDS provided to inmates in preparation for release. Number of inmates taught during the month.

3. *Cancer Education:*

a. Self-Exam (Female)—Number of Inmates: Educational programming provided to female inmates on breast self-exams/mammography. Number of inmates taught and documented during the month.

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- b. Self-Exam (Male)—Number of Inmates: Educational programming provided to male inmates on testicular exam. Number of inmates taught and documented during the month.

4. *Dental Education:*

Orientation Group OHI—Number of Inmates: Group teaching on orientation to Dental Services and Oral Hygiene Instruction (OHI). Number of inmates taught and documented during the month.

5. *Chronic Disease Clinic Education:*

- a. Hypertension—Number of Inmates: Formalized and documented individual or group teaching regarding hypertension. This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.
- b. Seizure—Number of Inmates: Formalized and documented individual or group teaching regarding seizures. This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.
- c. Diabetes—Number of Inmates: Formalized and documented individual or group teaching regarding diabetes. This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.
- d. Asthma—Number of Inmates: Formalized and documented individual or group teaching regarding asthma. This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.
- e. TB—Number of Inmates: Formalized and documented individual or group teaching regarding tuberculosis (TB) and isoniazid (INH). This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.
- f. General Medicine—Number of Inmates: Individual patient teaching regarding specific condition. Must be documented in medical record. Number of inmates taught during the month.
- g. Immunodeficiency—Number of Inmates: Individual patient teaching regarding immunodeficiency conditions. Must be documented in medical record. Number of inmates taught during the month.

6. *Communicable Disease Education:*

- a. Hepatitis—Number of Inmates: Formalized and documented individual or group teaching regarding hepatitis. This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.
- b. STDs—Number of Inmates: Formalized and documented individual or group teaching regarding STDs. This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.

7. *Prenatal Education:*

Prenatal—Number of Inmates: Formalized and documented individual or group teaching regarding prenatal care for female inmates. This may be verbal and/or written and must include time for questions. Number of inmates taught during the month and documented in medical record.

H. FEMALE SUPPLEMENT:

1. *Pregnancies:*

- a. Number of New Pregnancies
- b. Number of Pregnancies YTD: (Calculated by Planning/HIS from data reported. This also includes current month.)
- c. Number of Pregnant Inmates at the Institution on Last Day
- d. Number of 1c. in 1st Trimester
- e. Number of 1c. in 2nd Trimester
- f. Number of 1c. in 3rd Trimester

2. *Infant Births/Deaths:*

- a. Number of Live Births
- b. Number of Infant Deaths: Report all deaths from time of delivery through 7 days from delivery.

3. *Tests:*

- a. *Number of Mammograms*
- b. *Number of Sonograms*
- c. *Number of Biopsies*: (These are only breast and cervical/genital.)
- d. *Number of Pap Smears*
- e. *Number of Abnormal Pap Smears*: (Report all Class II through V.)

4. *Medications:*

- a. *Number of Ibuprofen, 200mg Tablets*
- b. *Ibuprofen Use Rate per Inmate*: Annualized number of ibuprofen used per 1000 inmates in the institutional workload. (Calculated by Planning/HIS from data reported.)

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