Corrections Health Care Costs

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by
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State Governments

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Executive Summary

From 1998 to 2001, state corrections budgets grew an average of eight percent annually, outpacing overall state budgets by 3.7 percent.[1] During that same three-year period, corrections health care costs grew by ten percent annually and comprised ten percent of all corrections expenditures. Alarmingly, recent spikes in corrections health care costs are a leading factor driving growth in corrections. Unchecked, these costs will surely plague cash-strapped states for years to come. What's driving these exorbitant costs and what are states doing to curb these trends?

There are two main reasons why states must pay for inmate health care. First, states are constitutionally mandated and court ordered to provide reasonable levels of care to inmates, including the provision for healthcare. Otherwise, states are subject to lawsuits brought on by mistreated inmates, which can cost millions of dollars. Secondly, thousands of prisoners are released back into communities each year. Inmates are more likely to acquire communicable diseases while incarcerated and, likewise, share those diseases once released. The identification of diseases upon entry and the treatment of diseases during incarceration protect inmates and communities from the spread of infection, ultimately saving long-term costs and lives.

Why are costs rising? According to a report by the National Institute of Corrections, states paid an average of $7.15 per day per inmate in 1998. Some factors that have contributed to the rise in corrections health care costs include services and treatment for Hepatitis C, HIV/AIDS, mental health problems and the aging inmate population.

Working together, state legislators and corrections officials are implementing innovative solutions to help manage this unprecedented growth. Some examples of cost-saving measures include:

- inmate co-payments;
- telemedicine;
- privatization of health care services;
- disease prevention programs; and
- early release of terminally ill and elderly inmates.

As corrections health care costs continue to rise, it becomes critical for state officials to understand this problem and share best practices. This *TrendsAlert* highlights the increased costs of corrections health care, the root causes behind the unprecedented growth and a historical look at the development of corrections health care policy. Innovative policies and practices are also examined to assist state officials with this growing trend.

1. Introduction

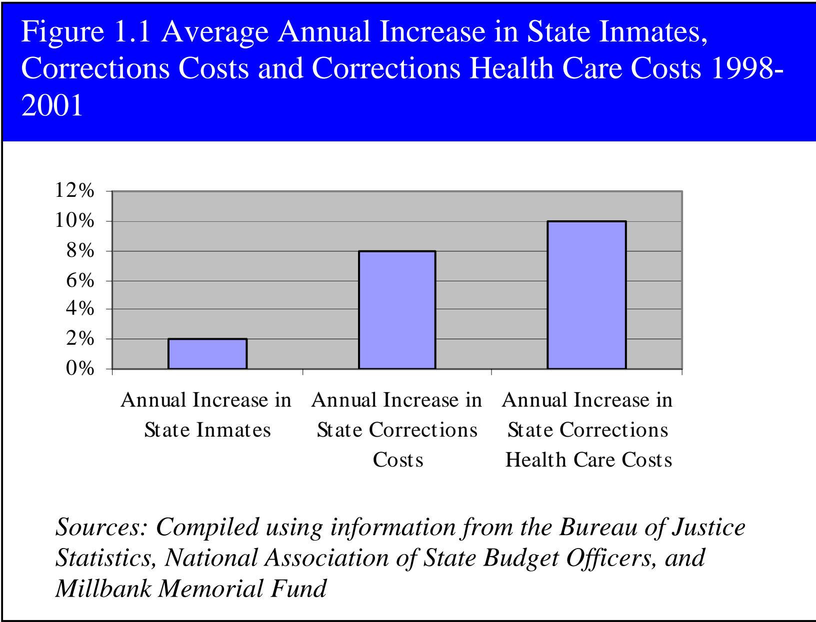
Legislative and executive officials are mandated by a host of court rulings to provide inmate health care funds. Corrections costs represent seven percent of all state general fund

expenditures and have increased eight percent annually between 1998 and 2001.[2] (See Figure 1.1) One of the driving factors behind these increasing corrections budgets is the dramatic rise in health care expenditures. Corrections health care costs now total $3.7 billion and account for ten percent of all state corrections costs.

Cost Drivers

In 2002, there were two million inmates housed in federal, state and local jails, with the majority of inmates housed in state prisons. Many of these inmates have one or more medical problems, lead lifestyles that make them extremely at risk to communicable diseases, have higher rates of mental illness and are likely to have chemical dependency problems. The dramatic rise in inmate health care costs is the result of many factors. Mandatory minimum sentencing and three-strike laws have kept inmates in prison longer. As of 2000, inmates 50 years old and older numbered over 113,000 or 8.2 percent of all inmates.[3] Older inmates are prone to suffer from chronic and terminal conditions such as hypertension, cancer, back problems, diabetes and a host of other medical problems. These conditions are expensive to treat and represent a major financial burden to the prison systems. It is estimated that the cost to house elderly inmates averages $70,000 annually, three times more expensive than housing a younger inmate.[4]

Figure 1.1 Average Annual Increase in State Inmates, Corrections Costs and Corrections Health Care Costs 1998-2001



Sources: Compiled using information from the Bureau of Justice Statistics, National Association of State Budget Officers, and Millbank Memorial Fund

Another big expense is the testing and treatment of communicable diseases. Due in part to lifestyle, crowded prisons, drug use and a lack of information, inmates have a much higher chance of being infected with communicable diseases than the general population. Treatment of these communicable diseases is extremely expensive. Hepatitis C treatments alone cost between $18,000 and $30,000 per inmate annually.[5]

Drug use is a major contributor to the spread of communicable diseases and can cause a variety of serious medical conditions. According to a report released by the Centers for Disease Control and Prevention, an estimated 80 percent of state prison and jail inmates have serious substance abuse problems.[6]

Prevalence of mental illness among state and local inmates is another medical and financial burden on the states. In 2000, the Bureau for Justice Statistics estimated that more than 16 percent of all state inmates had some form of mental illness.[7]

Other factors contributing to the rise in health care costs include pharmaceutical purchases, poor outsourcing and contract management.[8]

State Responsibility for Prison Health Care

Why do states pay for inmate health care? For one, if left untreated, inmates pose a public health risk to the community after their release, a serious drain on the limited health care funds available to communities. Also, states must comply with the Eighth Amendment to the U.S. Constitution.

It is estimated that in 1999, state prisons released more than 500,000 inmates back into communities. Many newly released prisoners return to the communities they came from, often the poorest of communities.[9] While most inmates with infectious diseases come to prison already infected there is evidence that infection also occurs during incarceration. Intravenous drug use, unprotected sex and tattooing are all at-risk behaviors that may occur during incarceration.[10]

In most cases when prisoners reenter society, they are usually released with between $15 and $40 and a list of community phone numbers to find shelter, food, health care and work. Few are able to find and keep a job and many fall back into a pattern of substance abuse.[11] Unfortunately, by the time an offender seeks treatment, an already overburdened health care system is unable to adequately respond. A report presented to Congress on the health of inmates returning to communities suggested that if states address gaps in prevention, screening and treatment services in prison, then communities could benefit from improved and reduced public health problems associated with untreated inmates returning to communities.[12]

Another reasons states pay for inmate health care is to comply with the U.S. Constitution's Eighth Amendment and court-mandated policies to avoid expensive lawsuits on behalf of inmates seeking adequate care. Inmate lawsuits and court rulings have been the impetus for change for inmate health care delivery and continue to be the principal source of corrections health care policy. Although inmate lawsuits concerning conditions of confinement, such as health care, represent a small part of litigation by inmates, the costs of these lawsuits can be extremely expensive to states. To underscore the problem, between 1996 and 2002, Washington state spent more than $1.26 million on judgments, settlements and claims of poor prison health. Among the awards:

- $245,000 to the mother of a mentally ill inmate who died in his prison cell just hours after telling officers he was having trouble breathing;
- $225,000 to the family of a mentally ill inmate who died in 1993, while under inadequate care after he refused to take his medications, eat properly or attend to his hygiene; and

- $180,000 to an inmate who was blinded in one eye because of inadequate care in state prison after he suffered a detached retina in a 1995 fight.

As of August 2002, Washington faced more than two dozen pending claims and lawsuits alleging poor prison health care.[13]

In addition to individual lawsuits, an entire inmate population can challenge the health care delivery system. Such class action suits can last for years and cost thousands or even millions of dollars. During the 1990s, at least 40 states and three territories were under court order to limit their prison populations and improve conditions across their entire corrections system, compared to just 25 states under court order in 1981, an increase of 60 percent.

Court-ordered remedies to these lawsuits represent a major cost increase to corrections budgets. Court rulings often require increased staffing, better equipment, enhanced services and more comprehensive treatment. Other remedies include stiffer timelines for providing care, detailed record keeping requirements and the adoption of quality control mechanisms. If unconstitutional conditions are the result of antiquated facilities, courts have ordered the closing of prisons and the construction of new ones, a financial burden to state corrections departments and state funds.[14]

2. Corrections Health Care Policy

Until the mid-20th century, correctional health care was not a major issue for policy-makers or the courts, nor was it an issue for corrections departments. For the most part, inmates were considered "slaves of the state and entitled only to the rights granted to them by the basic humanity and whims of their jailors."[15] Court rulings essentially upheld this belief and encouraged a hands-off policy toward prison health care issues. Several factors arose, however, that essentially reversed policy and gradually brought about today's modern corrections health care system.

By the 1970s, ethical, security, health and legal issues forced correctional health care under the microscope. By this time many communities and states around the nation agreed that health care should be a right extended to every citizen and was a necessity of humanity that could not be denied.[16]

The importance of providing inmates with adequate health care was not only critical for their welfare, but also for the welfare of local communities that receive released prisoners. Health officials recognize that there is a significant threat to public health in the communities inmates return to if inmates are not aware of their condition and not provided necessary health care while incarcerated.[17]

Legal issues and court decisions not only put corrections health on notice, but it effectively set state corrections policy and forced corrections officials to provide adequate health care. The case credited with reversing the hands-off doctrine and setting the precedent for future rulings on prisoners' rights to medical care was the 1972 decision in *Newman v. Alabama*. This federal

district court case found Alabama's entire correctional system to be in violation of both the Eighth and Fourteenth Amendments to the U.S. Constitution because inmates were not provided with adequate and sufficient medical care. The court ordered Alabama to immediately fix all existing deficiencies, regardless of cost. Following this decision, several other court cases expanded corrections health care:

- In *Holt v. Hutto*, the courts ruled that adequate drinking water and diet, prepared by persons screened for communicable diseases in kitchens meeting reasonable health standards, be provided.
- In *Finney v. Arkansas Board of Corrections*, the court ruled that essential elements of personal hygiene such as soap, towels, toothbrush and toilet paper had to be provided. The court also ruled that states must provide competent medical and dental care supported by proper facilities as well as medically prescribed drugs and special diets.
- In *Wayne County Jail Inmates v. Lucas*, the court mandated that jail and prison inmates should have access to drug detoxification and/or treatment for drug dependency.
- In *O'Connor v. Donaldson*, the court mandated professional treatment and evaluation of psychiatric problems in appropriate settings for detainees under civil commitment.[18]

In 1976, the landmark U.S. Supreme Court case *Estelle v. Gamble* set forth the major guidelines for prison and jail health care systems. This case affirmed that providing inmates with health care is a constitutional requirement, making inmates the only class of people constitutionally given the right to health care.

According to *Estelle v. Gamble,* the Eighth Amendment is violated when corrections officials are "deliberately indifferent" to an inmate's serious medical needs. Since the case, the term "deliberate indifference" has been defined in three categories: (1) denied or unreasonably delayed access to a physician for a diagnosis or treatment; (2) failure to administer treatment prescribed by a physician; and (3) denial of professional medical judgment.[19]

Today the most widely accepted policy is to provide inmates with a community standard of care. The community standard of care is based on the level of care someone in the community

Example 2.1 Sample of Current State Policies

Due in part to court decisions, many states have implemented a host of policies for their corrections health care systems. According to a survey of 49 states in 1998, corrections departments perform the following medical services:

- 47 states provide MRI's;
- 44 states provide pacemaker implants;
- 42 states provide preventive dentistry; and
- 25 states provide organ transplants (state policy for organ transplants for death row inmates may differ – Oregon recently won a court decision denying an organ transplant to an inmate on death row).

Source: Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, 50.

would receive. It is believed that if corrections health care programs provide anything less, they increase the possibility of inmate lawsuits against the department for providing inadequate care. Despite attempts at standardizing a community standard of care, however, states maintain definitions such as:

- providing patients what they need medically, not what they want;
- providing care comparable to what a beneficiary of insurance, government program such as Medicaid or Medicare, health maintenance organization or a private patient would medically receive; or
- providing care that is medically necessary, not necessarily care that is medically acceptable, yet allowing practitioners to make exceptions to the policy on a case-by-case basis.[20]

States are court mandated to provide all "medically necessary" treatment in a timely manner. Because inmate lawsuits are very expensive, it is usually found that state prison facilities strictly adhere to the court mandates and almost always err on the side of caution. Therefore, corrections health care costs are ballooning.

3. Cost Driving Factors

Between 1998 and 2001, state prison populations increased an average of two percent annually[21] and, during that same time period, corrections costs increased an average of eight percent annually. (See Appendix B) During the same period, health care costs for state inmates rose ten percent on average annually between 1998 and 2001 and represented ten percent of the total corrections budgets. (See Appendix A, B, and C) Clearly, health care costs for inmates are a contributing factor to the rise in corrections budgets.

Inmate health care expenditures are used to provide services such as mental health, dental care and general medical care.[22] These costs, as a percentage of state corrections budgets, have remained consistent at ten percent each year from 1998 to 2001, with state ranges from five to 17 percent.

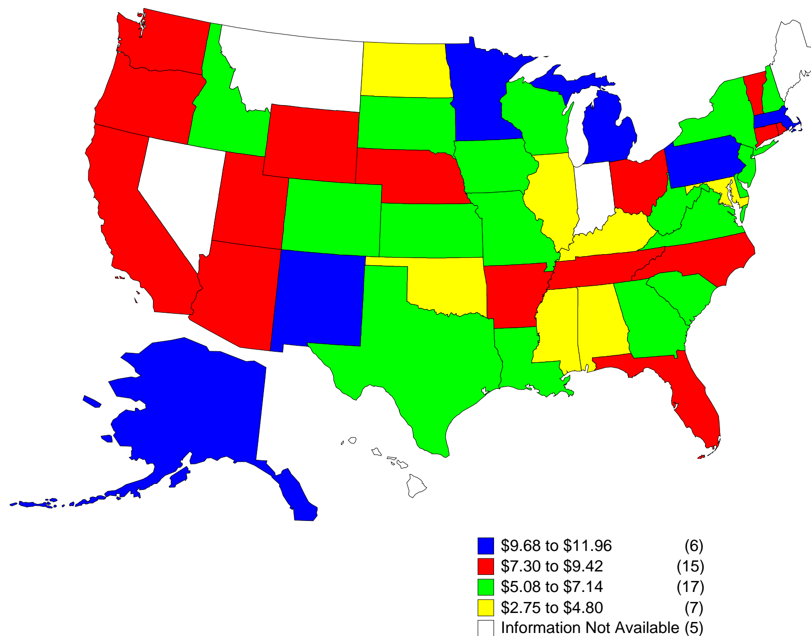
A survey of state corrections departments in 2000 found that one-year growth rates for health care budgets was more than nine percent on average. This survey also found that in 1998, states paid an average of $7.15 per day for health care for each inmate. Some states, such as Massachusetts, paid as much as $11.96 per day while other states such as Alabama paid as little $2.74 per day.[23] (See Figure 3.1)

Why are corrections health care costs rising so dramatically? Essentially, inmate lifestyles prior to and during their terms of incarceration make them one of the unhealthiest populations in the nation. There is no single reason for the increase. Rather, there are a host of factors identified as the main contributors to the rise in corrections health care costs:

- Communicable and Chronic Diseases;
- Mental Illnesses;

- Elderly Inmates;
- Substance Abuse and Treatment; and
- Prescription Drug Costs.

Figure 3.1 Inmate Health Care Per Capita Cost, 1998



Source: Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, 7-8.

Communicable and Chronic Diseases

Communicable diseases not only represent a problem for corrections populations, but they can also be devastating to communities that typically receive former inmates once they are released. Nationwide, 1600 offenders are released daily from prison and most are returning to poorer, urban neighborhoods.[24]

Sexually Transmitted Diseases (Syphilis, Gonorrhea, and Chlamydia)

Prison inmates are a high-risk population for many sexually transmitted diseases (STDs). In 1997, a National Commission on Correctional Health Care report estimated that between 2.6 percent and 4.3 percent of all inmates, or between 50,000 and 80,000 inmates, had Syphilis. In that same year, it was estimated that 2.4 percent, or just over 40,000 inmates, had Chlamydia and one percent, or 18,000 inmates, had Gonorrhea. All told, it is estimated that in 1997 alone at least 200,000 jail and prison inmates had some form of STD and, even though there are no exact

figures for the general population, it is believed that prison inmates had a higher prevalence of STD infection than the general population.[25] Combined, the national annual medical costs to treat all of those infected with these three diseases roughly total $475 million.[26]

Example 3.1 Definitions of Communicable Diseases

Syphilis – A chronic STD characterized by an ulcer in the genital area followed within weeks by a secondary eruption of the skin and mucous membranes. In one-third of cases, after a long period of latency, the conditions are followed by irreparable damage to the skin, bone, nervous and cardiovascular systems. Syphilis can be easily tested for and treated.

Gonorrhea – A STD that manifests in chronic pelvic pain, eye infection, and, if left untreated, may result in death. Initial infection without symptoms is common. Gonorrhea can be easily tested for and treated.

Chlamydia – A STD that has many of the same symptoms of Gonorrhea, only milder. Due to its mild symptoms, the disease is more difficult to detect and commonly remains undetected. However, the disease can be easily identified through testing.

Hepatitis – An infection of the liver caused by viruses. Hepatitis B can develop into a chronic disease that is responsible for 5,000 deaths annually, mostly by cirrhosis of the liver. Hepatitis C is the leading reason for liver transplantation in the United States. Both Hepatitis B and C are acquired through exposure to contaminated blood products, especially during drug use. Complications caused by Hepatitis account for an estimated 25,000 deaths annually. A vaccine provides immunity from Hepatitis B, however there is no vaccine for Hepatitis C.

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) – A virus transmitted through sexual relations and exposure to blood. AIDS occurs when the HIV virus attacks the body's immune system and leaves an individual susceptible to multiple infections, cancers and other illnesses. HIV infection also causes damage to the central nervous system, leading to progressive dementia and a serious wasting syndrome.

Tuberculosis – TB is a communicable disease caused by bacteria that commonly infects the lungs. People with dormant TB infection may be totally free of symptoms and may go through their lives without symptoms or the possibility of spreading the disease. However they are at risk of developing active TB, which can be spread through airborne contact. TB can be cured with a six to 12-month course of medications. Preventive therapy dramatically reduces the risk that latent TB could lead to active TB.

Source: The National Commission on Correctional Health Care, The Health Status of Soon to Be Released Inmates. vol. 2 (April 2002), 16.

Hepatitis B and C

One of the largest and fastest growing problems for corrections health care is the number of inmates who are infected with Hepatitis B and C. In 1997, Hepatitis B infected 2 percent, or almost 40,000 inmates. Hepatitis C infection rates have even more staggering numbers than HIV/AIDS infection and make it the most common communicable disease, over six times the rate of HIV/AIDS infection. In 1997, it is estimated between 17 and 19 percent, or between 303,000 and 332,000 inmates, had Hepatitis.[27] More current estimates suggest anywhere from 20 to 60 percent of inmates have Hepatitis C, according to states that screen for the virus.[28] Currently, only Colorado routinely tests its inmates for Hepatitis C and has found that 30 percent of its inmate population is infected with the disease.[29]

Not only is Hepatitis C an easily spread and debilitating virus, it is also extremely expensive to treat. The latest treatments for Hepatitis C cost between $24,000 and $30,000 per inmate. Even using older treatment methods, costs run as high as $10,000 per inmate. A recent court case against the Kentucky Department of Corrections and a pending case in Oregon may be the beginning of a trend in which corrections health care officials are forced to pay for Hepatitis C treatment, even though there are no known cures for the virus. Hepatitis C also causes chronic liver disease, which usually results in the need for a transplant and associated high costs.[30]

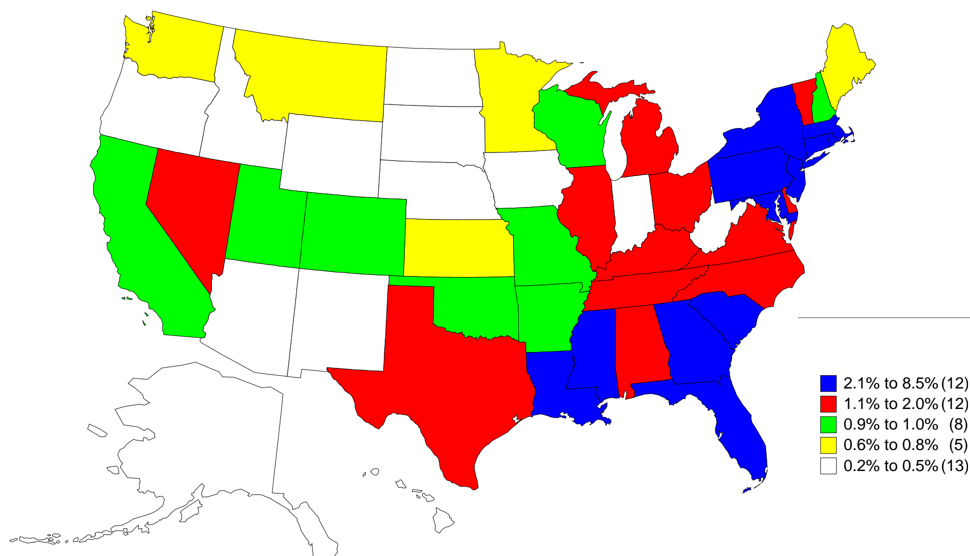
Inmates, due in part to their lifestyle, are extremely susceptible to Hepatitis C infection. Inmates, in general, engage in risky behaviors such as unsterilized tattooing and piercing, unprotected sex, fighting which results in blood-to-blood contact, sharing personal hygiene items such as razors and IV or intranasal drug use.[31]

Hepatitis C represents one of the greatest threats to corrections health care budgets, not only as a the most common communicable disease, but also when compared to all other medical problems. It represents such a threat because of the ease with which it is spread, its prevalence, its high cost to treat and court decisions in several states may ultimately mandate Hepatitis C treatment. The fiscal impact of Hepatitis C will also worsen before it gets better. Currently, few states test for this condition. However, the number of cases will likely rise as screening becomes more prevalent.

HIV/AIDS

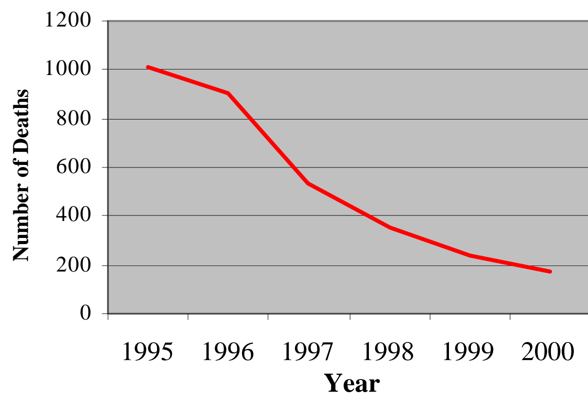
Another communicable disease that afflicts state inmates at a high rate and represents both an expensive and often terminal condition is Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS). As of December 31, 2000, 2.2 percent, or 24,074 state inmates, had HIV and 0.6 percent, or 5,230 state inmates, had full-blown AIDS. (See Figure 3.2) It is estimated that the prevalence of AIDS among inmates is almost four times that of the general population. In 2000, 29 states reported an increase in the number of HIV-positive prisoners while only 18 states reported a decrease in the number of HIV-positive prisoners.[32]

Figure 3.2 Percentage of Inmates with HIV/AIDS, 2000



Source: Laura Manuschak, "HIV in Prisons, 2000," Bureau of Justice Statistics, October 2002, <http://www.ojp.usdoj.gov/bjs/pub/pdf/hivp00.pdf> (24 February 2003).

Figure 3.3 Number of Inmate Deaths Related to HIV/AIDS, 1995-2000



Source: Laura Manuschak, "HIV in Prisons, 2000," Bureau of Justice Statistics, October 2002, <http://www.ojp.usdoj.gov/bjs/pub/pdf/hivp00.pdf> (24 February 2003).

Despite being a serious and expensive condition to treat, the prevalence of HIV/AIDS and its effects are beginning to level off after years of dramatic increase. As of 2000, only 2 percent of state prisoners were infected with HIV. Between 1995 and 2000, the number of HIV-positive inmates grew 0.4 percent annually on average, a slower rate than the overall state prison population, which grew 3.4 percent annually on average. In 2000, 174 state inmates died of AIDS or complications that resulted from the AIDS virus, down 80 percent since 1995. (See Figure 3.3) Despite the high prevalence of AIDS in state prisoners, deaths attributed to AIDS was lower for state prisoners than for a comparable group in the general population in 1999.[33]

Although the HIV/AIDS crisis has begun to subside, it is still a major health problem for state inmates and a major health care cost for corrections health care officials. The estimated lifetime cost of care and treatment for an individual with HIV is approximately $195,000. Costs nearly double when an HIV-positive patient progresses to full-blown AIDS – the annual costs rise from $14,000 for HIV to over $34,000 to treat and care for an AIDS patient.[34] Also, as more treatment options become available for HIV/AIDS and the number of inmates with both conditions live longer, the costs to treat these diseases will continue to rise significantly.

Tuberculosis (TB)

Tuberculosis is a treatable disease that is becoming uncommon. Again, however, inmates are one population that has the highest prevalence of the active and inactive diseases and, if left untreated, can pass on the degenerative disease to others. TB also presents a unique problem in that it can be spread by airborne contact.

In 1997, at least 90,000 prison inmates tested positive for latent TB. In that same year, it is estimated that nearly 500 state prisoners had active Tuberculosis.[35]

Even though few inmates have active TB, those with the ailment must be isolated in special cells that ventilate the air and receive medication to repress the illness, all of which are expensive. Also, there are increasing incidences of a multi-drug resistant Tuberculosis, which fends off vaccines, thereby increasing the costs and risk of the disease.[36]

Chronic Illnesses

Chronic illnesses afflict thousands of inmates. A chronic illness is a debilitating health condition that is of long duration and requires continuous medical treatment.[37] Inmates with these conditions place a significant financial burden on corrections health care systems. Not only is it expensive to treat inmates with these conditions, chronic health conditions also lead to other, more expensive health problems. Estimates for the prevalence of chronic diseases among state prison inmates suggest that they may be higher than the national average for chronic diseases.[38]

In 1998, it was estimated that almost 140,000 or 8.5 percent of all inmates had asthma compared to only 7.8 percent of the general population. (See Figure 3.4) Asthma, a chronic inflammatory disease of the airways that makes breathing difficult, is one of the most common chronic diseases in the United States. If the condition is not properly treated, it can lead to emergency

hospitalization and even death. Most of the effects of asthma are largely preventable with improved patient education and medical management.[39] Direct costs for asthma in the United States are more than $8.1 billion annually, with inpatient hospital care costing $3.1 billion yearly.[40]

Another chronic disease that commonly affects inmates is diabetes. It was estimated in 1998 that five percent, or almost 80,000 inmates, were afflicted with this condition.[41] Diabetes occurs when a body either doesn't make enough insulin or can't use its own insulin as well as it should.[42] If the disease is not properly treated it can lead to kidney failure, heart disease and disease of the blood vessels, and is the number one cause of blindness in people under the age of 60 in the United States. The health problems that can be caused by diabetes result in costly health care services such as kidney dialysis, limb amputation and emergency room visits. Controlling blood sugar levels can prevent the long-term consequences of diabetes.[43]

Hypertension, or high blood pressure, is another chronic disease that, if left untreated, can lead to heart disease, organ failure and ultimately death. In 1998, it is estimated that more than 280,000 inmates were afflicted with high blood pressure, representing 18 percent of all inmates. Untreated, high blood pressure is one of the most common chronic illnesses among adults and inmates. The condition can eventually require expensive health care services for coronary heart disease, kidney failure, stroke and blood vessel disease. Blood pressure control is associated with a substantial reduction in heart disease and stroke.[44]

Figure 3.4 Prevalence of Infectious, Chronic, and Mental Diseases in Inmate Populations

Category	Condition	Prevalence Compared to U.S. Population
Infectious Disease	Active Tuberculosis Hepatitis C AIDS HIV Infection	4 times greater 9-10 times greater 5 times greater 8-9 times greater
Chronic Diseases	Asthma Diabetes/Hypertension	Higher Lower
Mental Illness	Schizophrenia or Other Psychotic Disorders Bipolar (Depression) Disorder Major Depression	3-5 times greater 1.5-3 times greater Roughly equivalent

Source: RAND Corporation, "Prisoner Reentry: What are the Public Health Challenges," 19 May 2003. <http://www.rand.org/publications/RB/RB6013/> (2 December 2003).

Mental Illnesses

In 1999, at least 16 percent of all state inmates had severe mental problems. When added to the number of inmates in local jails, the number of mentally ill inmates reaches a staggering

300,000, more than four times the number of people in state mental hospitals during that same time.[45] In 1998, states spent between five and 43 percent of their health care budgets on mental health.[46]

As of 2000, one in every eight state inmates was receiving some mental health therapy or counseling services. Of those, ten percent were receiving some form of medication for their condition and almost two percent of state inmates required housing in a 24-hour mental health unit.[47] Inmates receive treatment for a variety of mental disorders. In 1997, the last time estimates were made on how many state inmates had certain mental illnesses on any given day, it was found that:

- Between 2.3 and 3.9 percent of inmates in state prisons had schizophrenia or another psychotic disorder. These disorders generally affect an individual's thought processes. Symptoms include hallucinations, delusions and disorganized speech and behavior.
- Between 13.1 and 18.6 percent of state inmates suffer from major depression. Symptoms of major depression are changes in appetite or weight; changes in sleep; decreased energy; feelings of worthlessness or guilt; and difficulty thinking, concentrating and/or making decisions that last at least two weeks. Fifteen percent of those with this disorder ultimately commit suicide.
- Between 2.1 and 4.3 percent suffer from bipolar disorder. Symptoms of this disorder involve periods of at least one week where an individual experiences rapidly alternating moods such as sadness, irritability and euphoria. Suicide rates for this disorder range between ten and 15 percent.
- Between 22 and 30 percent of all state prisoners suffer some form of anxiety disorder including panic disorder, agoraphobia, obsessive-compulsive disorder, post-traumatic stress syndrome, general anxiety disorder and other conditions. These disorders are characterized by six months of persistent and excessive anxiety and worry.[48]

The costs of incarcerating individuals with severe psychiatric disorders are enormous. According to recent estimates, it costs taxpayers $15 billion annually to treat individuals with psychiatric disorders in jails and prisons.[49]

State Programs for the Mentally Ill

State corrections facilities provide a host of services and facilities to deal with the large number of mentally ill inmates. According to a 2000 report by the Bureau of Justice Statistics:

- 70 percent of all facilities housing state inmates reported that they provide mental health screening at intake;
- 65 percent conducted psychiatric assessments;
- 51 percent provided 24-hour mental health care;
- 71 percent provided therapy/counseling by trained mental health professionals; and
- 66 percent helped released inmates obtain community mental health services.

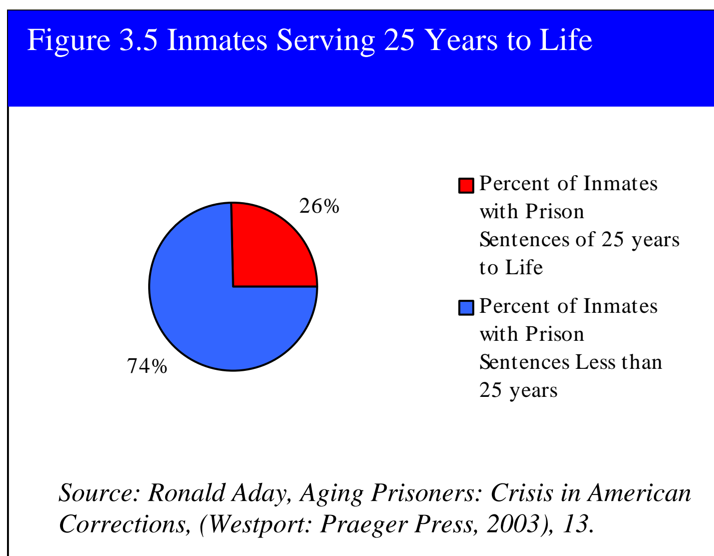
While some state prisons provide adequate psychiatric services to mentally ill inmates, many do not. Also, incarcerating individuals with severe psychiatric disorders costs twice as much as assertive community treatment programs.[50] Community treatment programs cost an estimated $60 a day for each inmate, while housing a mentally ill individual in prison can cost up to $137 per day.[51] For more policy recommendations regarding the criminal justice system and the mentally ill please visit The Council of State Governments' *Mental Health Consensus Project* at http://consensusproject.org/.

Elderly Inmates

In addition to communicable and chronic diseases, another trend in corrections health care is the rise in the number of elderly inmates in state prisons. Elderly inmates, those who are 50 years of age or older, have increased dramatically over the past 20 years. This group of inmates represents a significant expense when compared to younger inmates because of their susceptibility to chronic physical and mental conditions. In fact, according to a report by the Bureau of Justice Statistics in 1997, inmates 45 years and older were almost twice as likely to suffer from medical problems other than injury and physical or mental impairment.[52]

The increase in the number of elderly inmates can be attributed to several different factors. One is that Americans are living longer today than ever before. Elderly people, as a percent of the total population, have increased dramatically. Another factor is the record numbers incarcerated during the 1990s. Not only are more people incarcerated, but many inmates, especially violent offenders, are staying in prison longer. (See Figure 3.5)

Figure 3.5 Inmates Serving 25 Years to Life

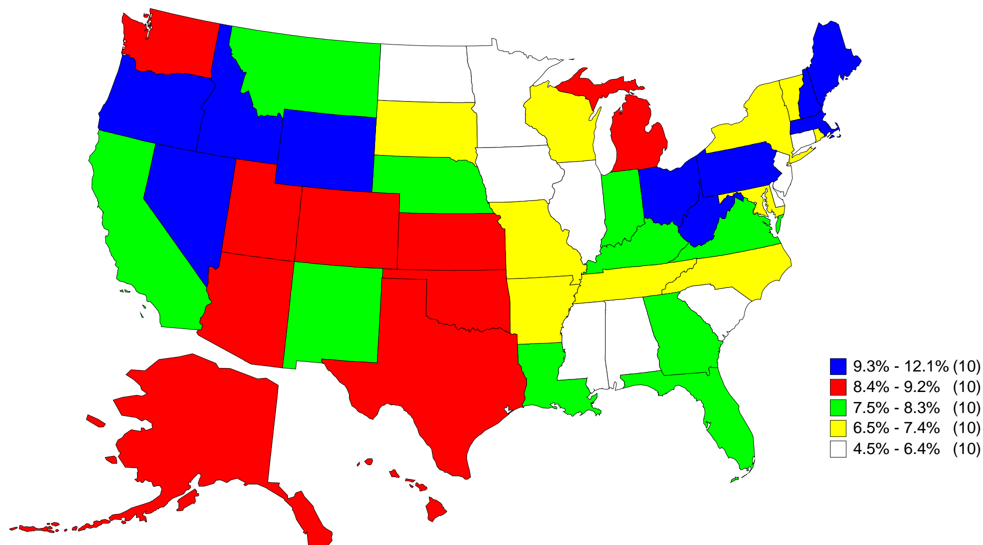


Source: Ronald Aday, Aging Prisoners: Crisis in American Corrections, (Westport: Praeger Press, 2003), 13.

Beginning in the 1980s, many states began to turn to retributive justice to handle an increasing level of crime. As a result, many states enacted truth-in-sentencing and three-strike laws and others abolished parole board releases altogether. Although there is ample evidence to show that these laws may have been a deciding factor in lower crime rates across the nation, one byproduct is that more inmates are staying longer in prison. By 1999, half of all state prison systems required inmates to serve 85 percent of their sentence. It is estimated that truth-in-sentencing laws add an average of 15 months to time served for violent offenses alone.

In 2001, there were 1.3 million inmates in federal and state prisons, including the District of Columbia. Of those, 133,358 were over the age of 50, triple the number of inmates that were over the age of 50 in 1990. Currently, elderly inmates comprise 8.2 percent of the total prison population, more than double the elderly proportion from 1990.[53] (See Figure 3.6)

Figure 3.6 Percent of State Inmates Over 50 Years Old, 2000



Source: Ronald Aday, Aging Prisoners: Crisis in American Corrections, (Westport: Praeger Press, 2003), 13.

The situation in Florida underscores this crisis. In 1988, Florida housed 1,350 inmates who were age 50 or older. During that year corrections officials estimated that the number of older inmates would increase to 3,094 by 2000. By 1998, Florida actually housed 4,403 inmates age 50 and older, representing a 195 percent increase in only ten years. In 2002, Florida reported 6,172 inmates 50 and older, representing 8 percent of the total inmate population. Florida corrections officials estimate that elderly inmates will comprise 14 percent of Florida's total inmate population by 2011.[54]

Health care costs for older inmates are much higher than for younger inmates. Current estimates suggest that it costs about $70,000 annually to incarcerate an inmate over the age of 60, whereas younger inmates cost $22,000.

To illustrate the cost disparity, the SCI-Laurel Highlands facility in Pennsylvania, a facility specifically designed for elderly inmates, reported an average health care cost of $16,362 per inmate for 1999. The average cost per inmate in other correctional facilities in Pennsylvania was $3,000. At North Carolina's McCain Correctional Facility, the state spent $200,000 in one year for just one elderly inmate. This inmate received open-heart bypass surgery, angioplasty and treatment for a stroke. There were also daily costs associated with treating the inmate's heart disease, diabetes and high blood pressure.[55]

State corrections systems are still trying to find ways to decrease health care costs for elderly inmates, yet maintain justice and public safety. It is clear, though, that the number of elderly inmates in state corrections systems will continue to rise, placing a huge financial burden on corrections health care.

Substance Abuse and Treatment

Also adding to the rise in health care costs in the states are the high costs to treat substance abuse problems. In 1997, 83 percent of all state inmates reported that they had used drugs in the past, half reported using drugs in the month before committing the offense and 33 percent of state inmates were under the influence of drugs when they committed the offense. Substance abuse is an enormous problem for state inmates, and drug abuse is a major contributor to poor inmate health and the spread of communicable diseases. Although few figures exist on the direct costs of drug and alcohol use, it indirectly results in several expensive medical conditions such as liver disease and the spread of many communicable diseases. Substance abuse treatment may help reduce the prevalence of several diseases, especially HIV and Hepatitis C.[56]

As of 1998, only eight states provided drug screening on intake despite the risks and problems associated with drug use.[57] As of 2000, 39 states provided drug and alcohol treatment in varying capacities.[58] It is estimated that the average cost for residential drug treatment is $2,773 per patient per month.[59] Although drug treatment programs are expensive, they may cost less than other treatments in the long run.

Prescription Drug Costs

Nationally, the use and cost of prescription drugs has increased dramatically within the last decade. Although prescription drug costs make up only a small and relatively stable percentage of overall health care expenditures, annual spending increases are significant when compared to other segments of the health care industry. During the last decade, growth of prescription drug costs outpaced the growth of hospital and physician expenditures every year.[60]

There is anecdotal evidence that this increase has also affected corrections health care costs. A report published by New Hampshire on inmate health care cited pharmaceutical costs as one of the major factors for its corrections health care costs increase between 1998 and 2002. The report found that the state's cost for pharmaceutical products more than doubled in five years and the average cost for pharmaceuticals per inmate increased by 48 percent.[61] (See Figure 3.7) Currently, no national data exists on how much each state pays for inmate pharmaceutical products. However, New Hampshire's experience indicates that pharmaceutical costs may be a leading factor to rising corrections health care costs nationwide.

Figure 3.7 Cost of Pharmaceuticals Dispensed by New Hampshire by Fiscal Year						
	1998	1999	2000	2001	2002	Increase 1998-2002
Total Costs	$523,500	$760,000	$875,600	$1,246,300	$1,634,744	$1,111,244
Percent Change	27%	45%	15%	42%	31%	212%
Prescriptions Dispensed per Month	31,881	39,190	46,977	57,508	67,170	35,289
Percent Change	18%	23%	20%	22%	17%	111%
Average Cost per Inmate	$16.42	$19.39	$18.64	$21.67	$24.34	$7.92
Percent Change	8%	18%	-4%	16%	12%	48%

Source: State of New Hampshire Department of Corrections Inmate Health Care, Performance Audit Report, January, 2003, 16

4. Policy Options

Many states have taken measures to slow and manage the growth of corrections health care costs. Working together, legislators, corrections officials and private sector partners can implement solutions that will help to offset the costs of corrections health care. Some innovative solutions include:

- Inmate Co-Payments;
- Telemedicine;
- Privatization;
- Early Release for Elderly and Terminally Ill Inmates;
- Utilization Review;
- Reduction of Pharmaceutical Costs;
- Use of Preferred Provider Organizations and Health Maintenance Organizations;
- Alternative Reimbursement for Emergency and Ambulatory Services; and
- Preventive Measures.

Inmate Co-Payments

As of 1998, 37 states had implemented an inmate co-payment for medical services.[62] State co-pay programs require an inmate to pay a small fee for seeing a doctor, nurse, dentist or for accessing any other medical service. The money is usually taken from an inmate's commissary or trust fund that they maintain while incarcerated. The idea behind inmate co-pay systems are twofold — the money helps offset medical expenses incurred by the prison and aims to reduce unnecessary sick call visits to lessen the strain on medical services.[63] If inmates have to use

some of their limited savings to pay for medical services, it is believed they will be less likely to abuse their medical privileges.

Currently, there is a growing use and clear benefit of inmate co-payments. However, many inmates believe that this fee-for-care is illegal and lawsuits challenging co-pay programs are on the rise. To date, the judiciary has consistently upheld the use of co-pay programs stating that they do not go against the deliberate indifference standard set by *Estelle v. Gamble.* It is important to note that an inmate cannot be denied care if they do not have funds, and many aspects of inmate co-pay programs are still being decided by pending court decisions.[64]

Under the current co-pay system, inmate co-pay amounts are very small and limited to select services. In Pennsylvania, the Department of Corrections instituted a $2 medical co-pay in 1998 for non-emergency sick calls, medical prescriptions, self-inflicted injury or illness and sports injuries. The co-pay does not cover emergency medical treatment, mental health treatment, chronic disease treatment, follow-up medical visits or long-term care.[65] Although inmate co-pay plans are not the end solution to inmate medical care costs, they are useful tools. Inmate co-pays have resulted in a reduction of sick call use and decreased costs for departments of corrections.[66]

Telemedicine

State corrections departments are utilizing telemedicine technology to save money on specialized health care and transportation costs for those seeking specialized treatment. Telemedicine allows a prisoner and prison health care professionals to hold a videoconference with an outside specialist. This on-camera examination typically results in diagnosis of the problem and suggestions about further consultation.

Currently, several state corrections departments are developing telemedicine capabilities. Both Texas and Ohio have been able to save between $200 and $1000 every time they use telemedicine. Telemedicine allows prison officials to bypass the high cost of transporting a prisoner to a hospital and the cost of sending staff with the inmate.[67] The average cost of installing telemedicine in a prison unit ranges from $50,000 to $75,000, depending on the type of equipment used and whether communication lines need to be placed. Also, it costs almost $60 per hour to communicate via telemedicine. Fortunately, telemedicine equipment and transmission costs are decreasing.[68] A report by the National Institute of Justice found that the initial equipment costs might be recovered in about 15 months, with monthly savings of $14,200 afterwards for most prisons that use telemedicine technology.[69]

Privatization

As prison costs continue to rise, several states have considered the use of private health care providers to save money. In 1997, 12 states had contracts with private firms to provide health care services to their entire inmate population, and another 20 states had contracted a portion of their health care system to private firms. By 2000, 34 states had some privatized health care contracts and 24 state corrections health care systems were run completely by private contractors.[70]

Illinois began contracting with private firms for corrections health care services in the early 1980s. Currently, three competing companies are used to run the entire corrections health system. Illinois boasts one of the lowest per inmate health care costs in the nation, at just under $1,700 per inmate per year, and lower corrections health care costs today than in 1991. Throughout the 1990s, Indiana, Mississippi, New Jersey and Washington D. C. outsourced to private firms and all experienced similar results. Washington is also considering use of private firms to decrease the costs of corrections health care. A report by the Washington Policy Center suggests that the introduction of competition into the current state monopoly on corrections health care may save the state ten to 20 percent of the corrections health care bill.[71]

Opponents of private health care argue that private companies have little incentive to provide quality care because their primary motivation is profit. In fact, there are several cases in which prison officials terminated a contract with private companies because they provided poor care. Overall, this appears to be the exception and not the rule. In fact, there have been several cases where courts found state corrections health care systems were providing poor care and needed to hire a private company until conditions improved. Several states have also required private corrections health care contractors to achieve and maintain accreditation through several reputable national organizations including the National Commission on Correctional Health Care and the American Correctional Association.[72]

Early Release for Elderly and Terminally Ill Inmates

To cut costs, several states have or are considering early release programs for elderly and terminally ill inmates. The number of elderly inmates increased dramatically over the last decade and projections show that that number will continue to grow. Also, state policy-makers are trying to decide how to handle terminally ill inmates, many of whom are elderly. Treatment costs can reach into the hundreds of thousands of dollars to treat just one terminally ill inmate.

There are 36 states that allow some type of medical or compassionate releases for their elderly or terminally ill inmates.[73] Within the last year, California and Georgia policy-makers considered using medical releases for these inmates. With annual costs for elderly inmates costing upwards of $70,000 and care for

Example 4.1 State Responses to Elderly Inmate Costs

Due to the enormous and continued increase in elderly inmates states are beginning to create facilities and programs to deal with this population and decrease the cost of keeping them in custody. Some actions states have taken to better manage elderly inmates include:

- 26 states have either grouped or created geriatric facilities;
- 29 states have created programs or recreational opportunities;
- 15 states have created special work assignments;
- 18 states have hospice or end of life programs;
- 36 states have medical or compassionate release; and
- 37 states have early release planning.

Source: Ronald Aday, Aging Prisoners: Crisis in American Corrections, (Westport: Praeger Press, 2003), 152.

some elderly and terminally ill inmates costing hundreds of thousands of dollars annually, early parole and medical reprieves may be a possible cost-saving measure.[74]

However, it is critical that policy-makers weigh the cost-saving benefits of elderly and terminally ill inmate releases with the need to make sure justice is served and that the inmates represent no public safety risk if released.

Utilization Review

Utilization review procedures are used to determine medical necessity and appropriateness of services and procedures provided for each inmate patient. Requests for services are evaluated by a panel of professionals or by an authorized physician to determine the medical necessity. Some utilization review systems require multilayered approval for all recommended treatments. The use of utilization review programs has been shown to reduce costs by denying services that are not clinically appropriate, by approving a lower cost treatment alternative and by preventing unnecessary hospitalization.

Several prison medical systems have developed well-established utilization management practices. North Carolina and Florida, for instance, have developed their own utilization review practices, while Georgia relies upon utilization review procedures prescribed by a contracted firm.

While credited as a primary source of savings, utilization review procedures are also frequently noted for slowing the growth of costs, also known as cost avoidance. Actual cost reduction, or the amount saved through cost avoidance, is typically seen after the first year of utilization review procedures. Also, the systematic application of utilization review procedures has actually decreased expenditures in some cases. In Florida, the Department of Corrections attributed a reduction in hospital expenditures to utilization review procedures. Between fiscal years 1990-1991 and 1992-1993, the Florida Department of Corrections cut hospital spending from $11.9 million to $11.3 million, despite a 20 percent increase in the average daily prison population.[75]

Reduction of Pharmaceutical Costs

Several states are beginning to take action to curb pharmaceutical costs, which have increased dramatically. One method used to control prescription drug costs involves limiting prescription options to generic or low-cost alternatives instead of purchasing brand name drugs. Several state corrections health care systems have created official lists of approved drugs, also known as a formulary. Formularies effectively restrict the medication choices provided to physicians. Many systems have a supplemental policy of automatically substituting a drug listed on their formulary for any drug prescribed by an outside physician.[76] Nebraska, in an effort to save on inmate health care costs, created a list of preferred drugs, making it more difficult to prescribe the newest and most expensive drugs. Also, the Nebraska Department of Corrections is moving towards a central pharmacy that will be used by most of the state prisons, a move that is also underway in Alaska and several other states.[77]

Another method utilized by state prison systems to contain prescription drug costs is the purchase of pharmaceutical supplies wholesale or at discounted prices. Many state prisons have joined together into buyer groups or consortiums. This enables prisons to place large volume orders and negotiate better prices. The New Hampshire Department of Corrections participates with several other state departments of corrections in the region in a multi-state buying group. Because of its participation in this group, New Hampshire Department of Corrections has been able to purchase pharmaceutical products 40 percent below the wholesale price.[78]

Preferred Provider Organizations (PPOs) and Health Maintenance Organizations (HMOs)

Several corrections departments have utilized Preferred Provider Organizations in an effort to save on corrections health care. Usually, a state corrections department will contract with providers who agree to charge discounted fees or standardized rates, or who will accept per capita payments for all services provided to an enrollee for a specified time. Many departments have established networks with hospitals and specialty care providers from whom services may be purchased at negotiated or discounted rates. Georgia and North Carolina are two states that have demonstrated significant cost savings through the use of preferred provider networks and the large volume of business that these purchasers or services will direct to hospitals and providers in the network.[79] Also, Nebraska, in a cost-saving initiative that ultimately trimmed $3.5 million from expected corrections medical costs, negotiated contracts with hospitals in Lincoln and Omaha so that the department was not paying the highest rates charged.[80]

Additionally, departments have been able to shed costs by using HMOs to contract for comprehensive health care. The firm under contract is expected to adhere to a fixed budget, while meeting all the health care needs of each prisoner. This arrangement is designed to manage costs by shifting the management and responsibilities of the health care system and thus the financial risk from the department to the firm.[81]

Alternative Reimbursement for Emergency and Ambulatory Services

According to a survey of state corrections departments in 1998, ambulatory and emergency medical care represented a large expense for many states.[82] The survey found it was not the range or number of services provided, but the method used to provide emergency or ambulatory care that had the greatest impact on the expense of the service. Corrections health care systems provide emergency and ambulatory care using five different payment models:

- In the employee model, health care providers are employees of the state department of corrections;
- In the fee-for-service model, providers are independent contractors who bill for health care services as they are used. Payment is at a customary market rate;
- In the pre-negotiated discounted fee-for-service model, payment is only for services used and rates are preset at a level below current market rates and are often negotiated at Medicare rates;
- In the capitated rate for specific services model, departments contract for services and make payments in advance for services such as dental or ambulatory care. Such

payments are based on the volume or number of inmates and may be a preset fixed sum; and
- The global capitated rates model requires a fixed inmate per day fee for all health care services.

As of 1998, 30 states used the state employee model, 11 states used a capitated contract model and seven states used a global capitated contract model to provide ambulatory care. The survey found that using a capitated contract model was the less costly model for providing ambulatory care at an average per capita cost of $6.53, compared with $6.99 for global capitated contracts, and $7.40 for utilizing state employees.[83]

For emergency services, ten states used a fee-for-service model, eight states used state corrections employees, 19 states used capitated contracts, eight used discounted fees-for-service and two used global capitated contracts. The survey found that global capitated contracts were the least expensive, costing an average of $3.91 per capita compared to using state employees at $6.83, capitated contract at $7.57, discounted fee for service at $6.04, and fee-for-service at $8.11. For both services the survey did not designate if one payment or service model was of a better quality than another.[84]

Prevention vs. Treatment

Generally, inmates in state prisons come from indigent areas, are not well-educated and lead extremely unhealthy lifestyles. Current treatment costs provided by corrections health care systems are expensive and continue to rise. In order to cut costs, some states are trying to implement more proactive prevention programs in their prisons.

Prevention encompasses a host of activities to help people avoid illness, injury and premature death. It is estimated that half of all disease, injury and premature death in the United States are potentially preventable. Prevention measures include health screenings, dental checkups, medicines and vaccines, and health education campaigns.[85] Preventing illness and disease in a prison setting can not only decrease the cost of corrections health care, but also relieve the medical burden that released inmates place on the communities into which they are released.

Several states have taken measures to address the spread of communicable diseases and the difficulties inmates face upon reentry. Rhode Island, for example, provides a comprehensive program to address inmate medical needs during incarceration and after their release. Their program provides a host of routine screenings, especially for HIV/AIDS. If inmates are found to have certain diseases or medical conditions they are given necessary treatment and medication as well as counseling about their condition. Discharge planning links released inmates to community-based services, increasing the number of inmates who follow up with medical care and drug treatment programming.[86]

In California, health officials work with prison staff and inmates to provide comprehensive HIV, Hepatitis and STD prevention and education. The program utilizes trained inmate peer educators

to deliver orientations for all incoming prisoners and secondary prevention and education for infected inmates.

The program also offers prevention case management for all prerelease inmates and encourages them to meet with community health providers. Some preliminary evaluations of the program have found that many inmates and former inmates utilized the advice and had less at risk health habits.[87]

Similarly, Texas has initiated a peer education "Wall Talk" program. The program was initially designed to address the need of health and risk education to reduce HIV/AIDS infection in the prison system. The program has now been expanded to include all major infectious diseases such as Hepatitis B and C, STDs, as well as HIV/AIDS. The program, like California's, utilizes trained and approved offenders to instruct other offenders in health prevention topics. Preliminary evaluations show that the program has decreased at risk health behavior.[88]

Example 4.2 Screenings Conducted by States

Several states utilize a host of health and disease screenings to identify inmates with certain conditions, provide them the proper care, target them for education and prevention education, and, in some cases, place them in special units if their condition warrants. Although identifying inmates with conditions will increase health care costs at first, it may ultimately save money by limiting the spread of diseases. As of 1998, a survey of 49 states found that:

- 49 states provide tuberculosis screening;
- 24 states provide HIV/AIDS screening;
- 41 states provide STD screening;
- eight states provide drug abuse screening;
- eight states provide Hepatitis C screening; and
- 47 states provide basic physical and mental health screenings.

Source: Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, 63.

Conclusion

States face a myriad of factors that contribute to the rising costs of corrections health care. Hepatitis C infection, prescription drug and elderly populations are leading culprits of skyrocketing costs. Combined with HIV/AIDS infection, chronic diseases and TB infection, these conditions carry with them responsibility and, unfortunately, high costs.

Despite these problems, state officials are creating innovative solutions to control the growth of these financial burdens. Simple solutions that help marginalize the costs of inmate health care include: inmate co-pay programs; competition through privatization; the review of medical procedures for cost and necessity; and introduction of low-cost prevention efforts to educate inmates about health care. New technology also provides an opportunity to decrease corrections health care budgets, mainly through the practice of telemedicine. Other policy options include

releasing older and terminally inmates, less expensive alternatives to health care services and less costly methods to procure pharmaceuticals.

Faced with the record number of state prisoners and rising health care costs, states are wrestling with enormous budgetary dilemmas. Working together, state legislators and corrections officials can manage this trend by exploring different policy options and sharing innovative solutions.

Notes

[1] National Association of State Budget Officers, 2001 State Expenditure Report, Summer 2002, <http://www.nasbo.org/Publications/PDFs/nasbo2001exrep.pdf> (5 May 2003).
[2] National Association of State Budget Officers, 2001 State Expenditure Report, Summer 2002, <http://www.nasbo.org/Publications/PDFs/nasbo2001exrep.pdf> (5 May 2003).
[3] Ronald Aday, Aging Prisoners: Crisis in American Corrections, (Westport: Praeger Press, 2003), 13.
[4] Mark Martin, "State Warned on Elderly Inmate Crisis," *San Francisco Chronicle,* 26 February 2003.
[5] Alan Gustavson, "Hepatitis C rates rise among inmates but few get treatment," *Oregon Statesman on the Web*, 29 April 2003, <http://news.statesmanjournal.com/article_print.cfm?I=60553> (2 May 2003).
[6] Centers for Disease Control, "Drug Use, HIV, and the Criminal Justice System," August 2001, <http://www.cdc.gov/idu/facts/druguse.htm> (2 February 2003).
[7] Allen Beck, "Mental Health Treatment in State Prisons, 2000," Bureau of Justice Statistics, July 2001. <http://www.ojp.usdoj.gov/bjs/pub/pdf/mhtsp00.pdf> (11 March 2003).
[8] Office of Legislative Budget Assistant, "State of New Hampshire Department of Corrections Inmate Health Care," Performance Audit Report, January 2003, 15-16.
[9] Joan Petersilia, "When Prisoners Return to the Community: Political, Economic, and Social Consequences," Department of Justice, Papers from the Executive Sessions on Sentencing and Corrections, No. 9, November 2000, 1,4.
[10] AIDS Research Institute, "What is the Role of Prisons in HIV, Hepatitis, STD and TB Prevention?" Center for AIDS Prevention Studies, August 2000, <www.caps.ucsf.edu/inmaterev.html> (5 August 2003).
[11] Buntin, John, "Mean Streets Revisited," *Governing Magazine*, April, 2003, 31.
[12] Academy for Educational Development, "Improved Community Health Through Better Correctional Health Care," July 2002, 4,7.
[13] Angela Galloway, "State has paid large sums in negligence settlements," *Seattle Post-Intelligencer,* 21 August 2002, <http://seattlepi.nwsource.com/local/83592_lawsuits21.shtml> (26 August 2003).
[14] U. S. Department of Justice, "Correctional Health Care: Guidelines for the Management of an Adequate Delivery System, 2001 Edition," Chapter 3, pg 44-45. December 2001 <http://www.nicic.org/pubs/2001/chc-files/fulldocument.pdf> (20 March 2003).
[15] U. S. Department of Justice, "Correctional Health Care: Guidelines for the Management of an Adequate Delivery System, 2001 Edition," Chapter 2, pg 15, December 2001 <http://www.nicic.org/pubs/2001/chc-files/fulldocument.pdf> (20 March 2003).
[16] Ibid, 19-21.
[17] Ibid.
[18] Ibid, 21-22.
[19] Ibid, Chapter 3, 46-48.
[20] Office of Legislative Budget Assistant, "State of New Hampshire Department of Corrections Inmate Health Care," Performance Audit Report, January 2003, pg 22-23.
[21] Paige Harrison and Allen Beck, "Prisoners in 2002," Bureau of Justice Statistics, July 2003, <http://www.ojp.usdoj.gov/bjs/pub/pdf/p02.pdf> (20 August 2003).
[22] Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, 5, http://www.nicic.org/pubs/2000/015999.PDF> (18 February 2003).
[23] Ibid, 5-6.
[24] Buntin, John, "Mean Streets Revisited," *Governing Magazine*, April, 2003, 30-33.
[25] The National Commission on Correctional Health Care, *The Health Status of Soon to Be Released Inmates.* vol. 2 (April 2002), 17-18.
[26] American Social Health Association, *Legislative Advocacy,* <http://www.ashastd.org/advocacy/stdecon.html> (5 August 2003).
[27] The National Commission on Correctional Health Care, *The Health Status of Soon to Be Released Inmates.* vol. 2 (April 2002), 17-19.
[28] Alan Gustavson, "Hepatitis C rates rise among inmates but few get treatment," *Oregon Statesman on the Web*, 29 April 2003, <http://news.statesmanjournal.com/article_print.cfm?I=60553> (2 May 2003).

[29] Kara Wright, *Hepatitis C Support Project,* June 2003, <http://hcvadvocate.org/Oldsite/200306/prisons.htm> (30 July 2003).
[30] Ibid.
[31] Ibid.
[32] Laura Manuschak, "HIV in Prisons, 2000," Bureau of Justice Statistics, October 2002, <http://www.ojp.usdoj.gov/bjs/pub/pdf/hivp00.pdf> (24 February 2003).
[33] Ibid.
[34] National Alliance of State and Territorial AIDS Directors, "Cost Effectiveness of HIV Prevention," <http://www.nastad.org/PDF/PUBLICPOLICY/COSTEFF.PDF> (5 August 2003).
[35] The National Commission on Correctional Health Care, *The Health Status of Soon to Be Released Inmates.* vol. 2 (April 2002), 17-18.
[36] Ibid.
[37] Trudi Matthews and Jenny Sewell, *State Official's Guide to Chronic Illness,* Lexington, KY: The Council of State Governments, 2003.
[38] The National Commission on Correctional Health Care, *The Health Status of Soon to Be Released Inmates.* vol. 2 (April 2002), 20-21.
[39] Ibid.
[40] American Academy of Allergy Asthma and Immunology, "Media Kit," <http://www.aaaai.org/media/resources/media_kit/asthma_statistics.stm> (6 August 2003).
[41] The National Commission on Correctional Health Care, *The Health Status of Soon to Be Released Inmates.* vol. 2 (April 2002), 20-21.
[42] Centers for Disease Control, "Frequently Asked Question About Diabetes," <http://www.cdc.gov/diabetes/faqs.htm#whatis> (1 August 2003).
[43] The National Commission on Correctional Health Care, *The Health Status of Soon to Be Released Inmates.* vol. 2 (April 2002), 20-21.
[44] Ibid.
[45] Treatment Advocacy Center, "Criminalization of Americans with Severe Mental Illnesses," <http://www.psychlaws.org/GeneralResources/Fact3.htm> (8 August 2003).
[46] Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, 13, http://www.nicic.org/pubs/2000/015999.PDF> (18 February 2003).
[47] Allen Beck, "Mental Health Treatment in State Prisons, 2000," Bureau of Justice Statistics. July 2001. <http://www.ojp.usdoj.gov/bjs/pub/pdf/mhtsp00.pdf> (11 March 2003).
[48] The National Commission on Correctional Health Care, *The Health Status of Soon to Be Released Inmates.* vol. 2 (April 2002), 23-26.
[49] Treatment Advocacy Center, "Criminalization of Americans with Severe Mental Illnesses," <http://www.psychlaws.org/GeneralResources/Fact3.htm> (8 August 2003).
[50] Allen Beck, "Mental Health Treatment in State Prisons, 2000," Bureau of Justice Statistics. July 2001. <http://www.ojp.usdoj.gov/bjs/pub/pdf/mhtsp00.pdf> (11 March 2003).
[51] Treatment Advocacy Center, "Criminalization of Americans with Severe Mental Illnesses," <http://www.psychlaws.org/GeneralResources/Fact3.htm> (8 August 2003).
[52] Laura Maruschak, Allen Beck, "Medical Problems of Inmates, 1997," Bureau of Justice Statistics. January 2001. <http://www.ojp.usdoj.gov/bjs/pub/pdf/mpi97.pdf> (11 March 2003).
[53] Ronald Aday, *Aging Prisoners: Crisis in American Corrections,* (Westport: Praeger Press, 2003), 9-15.
[54] Ibid.
[55] Ibid, 89-90.
[56] Centers for Disease Control, "Drug Use, HIV, and the Criminal Justice System," August 2001, <http://www.cdc.gov/idu/facts/druguse.htm> (2 February 2003).
[57] Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, pg 63.
[58] American Correctional Association, *Corrections Compendium,* vol. 25 no. 6 (June 2000) 13-15.
[59] National Institute on Drug Abuse, "Drug Abuse Treatment," February 1999, <http://www.drugabuse.gov/about/organization/ICAW/treatment/treatmentfindings299.html> (6 August 2003).

[60] The Council of State Governments, "Prescription Drug Coverage for Seniors," Health Policy Forum, December 2001, 3.
[61] Office of Legislative Budget Assistant, "State of New Hampshire Department of Corrections Inmate Health Care," Performance Audit Report, January 2003, 15-16.
[62] Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, 58.
[63] Robert Vogt, "Inmate Co-Pay Finds Support in the Courts," National Commission on Correctional Health Care: Legal Affairs, Summer, 2002. <http://www.ncchc.org/pubs/CC_archive/co-pay.html> (25 August 2003).
[64] Ibid.
[65] Pennsylvania Department of Corrections, "Health Care Services," February 2003, <www.cor.state.pa.us> (25 August 2003).
[66] Robert Vogt, "Inmate Co-Pay Finds Support in the Courts," National Commission on Correctional Health Care: Legal Affairs, Summer, 2002. <http://www.ncchc.org/pubs/CC_archive/co-pay.html> (25 August 2003).
[67] Elizabeth Kinder, "Innovations Help Control Prison Health Costs," Stateline.org, 26 April 2002, <http://www.stateline.org/story.do?storyId=235005> (25 August 2003).
[68] Carole Strayhorn, "Challenging the Status Quo: Toward Smaller, Smarter Government," Texas Performance Review, March 1999, < http://www.window.state.tx.us/tpr/tpr5/7ps/ps03.html> (15 September 2003).
[69] National Institute of Justice, "Telemedicine Can Reduce Correctional Health Care Costs: An Evaluation of a Prison Telemedicine Network," March 1999, < http://www.ncjrs.org/telemedicine/toc.html> (26 August 2003).
[70] Erin Montague, "Prison Health Care: Healing a Sick System through Private Competition," Washington Policy Center, 8 March 2003, < http://www.wips.org/ConOutPrivatization/PNPrisonHealthCare03-08.html> (28 August 2003).
[71] Ibid.
[72] Ibid.
[73] Ronald Aday, Aging Prisoners: Crisis in American Corrections, (Westport: Praeger Press, 2003), 13.
[74] Patrik Jonsson, "As prisoners age, should they go free?" *The Christian Science Monitor*, 5 September 2003, <http://www.csmonitor.com/2003/0905/p01s01-usju.htm> (5 September 2003).
[75] Karen Firestone and Kelly LaRoux, "Prison Health Care: An Overview," Michigan Senate Fiscal Agency, September 2000, <http://www.senate.state.mi.us/sfa/Publications/SpecialReports/PrisonHealthCare/PrisonHealthCare.pdf> (25 August 2003).
[76] Ibid.
[77] Nancy Hicks, "Health care for inmates gets costly," *The Lincoln Journal Star,* 10 July 2003, <http://www.journalstar.com/nebraska.php?story_id=62160> (25 August 2003).
[78] Office of Legislative Budget Assistant, "State of New Hampshire Department of Corrections Inmate Health Care," Performance Audit Report, January 2003, 16.
[79] Karen Firestone and Kelly LaRoux, "Prison Health Care: An Overview," Michigan Senate Fiscal Agency, September 2000, <http://www.senate.state.mi.us/sfa/Publications/SpecialReports/PrisonHealthCare/PrisonHealthCare.pdf> (25 August 2003).
[80] Nancy Hicks, "Health care for inmates gets costly," *The Lincoln Journal Star,* 10 July 2003, <http://www.journalstar.com/nebraska.php?story_id=62160> (25 August 2003).
[81] Karen Firestone and Kelly LaRoux, "Prison Health Care: An Overview," Michigan Senate Fiscal Agency, September 2000, <http://www.senate.state.mi.us/sfa/Publications/SpecialReports/PrisonHealthCare/PrisonHealthCare.pdf> (25 August 2003).
[82] Deborah Lamb-Mechanick, Julianne Nelson, National Institute of Corrections, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," June 2000, 9-11.
[83] Ibid.
[84] Ibid.
[85] Partnership for Prevention, *Guide to Smart Prevention Investments,* (Washington, D. C.: Partnership for Prevention, 2001), 1-4.

[86] AIDS Research Institute, "What is the Role of Prisons in HIV, Hepatitis, STD and TB Prevention?" Center for AIDS Prevention Studies, August 2000, <www.caps.ucsf.edu/inmaterev.html> (5 August 2003).
[87] Ibid.
[88] Texas Department of Corrections, "Peer Education, Wall Talk," The Council of State Governments, 2003 Innovations Awards Program Submission.

Appendix A: Percentage of Health Care Expenditures within Corrections Budgets, 1998-2001

State	1998	1999	2000	2001
Alabama	12%	12%	9%	9%
Alaska	10%	10%	-	-
Arizona	8%	10%	11%	12%
Arkansas	14%	14%	14%	14%
California	12%	12%	12%	13%
Colorado	23%	-	10%	10%
Connecticut	13%	13%	12%	13%
Delaware	11%	8%	6%	7%
Florida	15%	14%	-	-
Georgia	13%	14%	12%	12%
Hawaii	8%	7%	7%	7%
Idaho	6%	6%	6%	6%
Illinois	5%	5%	5%	5%
Indiana	4%	5%	8%	1%
Iowa	5%	5%	5%	7%
Kansas	8%	8%	7%	7%
Kentucky	10%	10%	8%	9%
Louisiana	6%	6%	6%	7%
Maine	4%	5%	5%	6%
Maryland	7%	7%	7%	8%
Massachusetts	7%	6%	6%	5%
Michigan	12%	11%	13%	13%
Minnesota	5%	6%	6%	7%
Mississippi	10%	10%	9%	10%
Missouri	9%	12%	11%	11%
Montana	8%	9%	7%	8%
Nebraska	9%	9%	4%	6%
Nevada	15%	13%	17%	17%
New Hampshire	10%	9%	6%	11%
New Jersey	8%	8%	7%	7%
New Mexico	11%	13%	14%	13%
New York	>1%	>1%	7%	8%
North Carolina	12%	14%	17%	17%
North Dakota	6%	6%	5%	7%
Ohio	6%	7%	10%	10%
Oklahoma	10%	11%	13%	14%
Oregon	6%	8%	5%	8%

Pennsylvania	9%	9%	9%	9%
Rhode Island	8%	9%	10%	10%
South Carolina	11%	16%	11%	11%
South Dakota	11%	10%	9%	10%
Tennessee	9%	9%	10%	9%
Texas	14%	14%	13%	13%
Utah	13%	14%	8%	8%
Vermont	-	-	6%	7%
Virginia	7%	8%	9%	8%
Washington	10%	9%	9%	10%
West Virginia	10%	10%	11%	13%
Wisconsin	5%	4%	5%	5%
Wyoming	10%	9%	8%	9%
Average Total	**9%**	**9%**	**9%**	**10%**

Sources: National Association of State Budget Officers, 2001 State Expenditure Report, Summer 2002, <http://www.nasbo.org/Publications/PDFs/nasbo2001exrep.pdf> (5 May 2003).

National Association of State Budget Officers, 1999 State Expenditure Report, June 2000, <http://www.nasbo.org/Publications/PDFs/exprpt99.pdf> (5 May 2003).

Milbank Memorial Fund, National Association of State Budget Officers, and Reforming State Group, 2000-2001, State Health Care Expenditure Report, April 2003, <http://www.milbank.org/reports/2000shcer/index.html> (2 May 2003).

Milbank Memorial Fund, National Association of State Budget Officers, and Reforming State Group, "1998-1999 State Health Care Expenditure Report," March 2001, <http://www.milbank.org/reports/1998shcer/index.html> (2 May 2003).

***All figures rounded to the nearest whole number**

Appendix B: Percentage Change in Corrections and Corrections Health Care Annual Budgets

State	Corrections Budget, 98-99	Corrections Health Care Budget, 98-99	Corrections Budget, 99-00	Corrections Health Care Budget, 99-00	Corrections Budget, 00-01	Corrections Health Care Budget, 00-01
Alabama	8%	13%	45%	4%	8%	11%
Alaska	7%	0%	-	0%	-	12%
Arizona	-4%	20%	-6%	5%	3%	6%
Arkansas	-6%	4%	7%	12%	2%	0%
California	9%	8%	13%	12%	15%	20%
Colorado	-94%	22%	-	8%	14%	17%
Connecticut	6%	2%	23%	17%	6%	16%
Delaware	20%	-6%	12%	-13%	1%	15%
Florida	4%	-2%	-1%	-	2%	-
Georgia	14%	16%	38%	19%	7%	10%
Hawaii	25%	10%	-10%	-9%	3%	0%
Idaho	4%	13%	3%	0%	14%	11%
Illinois	13%	10%	16%	18%	7%	12%
Indiana	-2%	16%	4%	66%	0%	-88%
Iowa	14%	18%	13%	23%	-2%	25%
Kansas	15%	10%	12%	0%	5%	5%
Kentucky	7%	3%	9%	-11%	8%	15%
Louisiana	9%	14%	16%	16%	3%	14%
Maine	12%	33%	13%	25%	5%	20%
Maryland	14%	6%	4%	9%	4%	15%
Massachusetts	17%	-8%	3%	2%	22%	2%
Michigan	12%	5%	15%	33%	5%	10%
Minnesota	9%	15%	-6%	4%	9%	17%
Mississippi	11%	10%	19%	0%	-3%	13%
Missouri	-17%	14%	0%	-5%	2%	0%
Montana	9%	14%	9%	-13%	5%	14%
Nebraska	10%	9%	24%	-42%	0%	43%
Nevada	8%	0%	-27%	-7%	13%	11%
New Hampshire	37%	20%	11%	-17%	-3%	60%
New Jersey	7%	8%	24%	7%	3%	3%
New Mexico	7%	29%	9%	18%	9%	4%
New York	7%	0%	2%	-	-10%	2%
North Carolina	8%	20%	1%	26%	0%	1%
North Dakota	6%	0%	11%	0%	13%	50%
Ohio	6%	15%	12%	57%	-1%	3%
Oklahoma	9%	21%	10%	30%	7%	13%
Oregon	22%	57%	32%	-23%	-16%	41%

Pennsylvania	5%	4%	8%	3%	5%	5%
Rhode Island	3%	9%	11%	17%	10%	14%
South Carolina	-25%	8%	49%	2%	7%	3%
South Dakota	6%	0%	6%	0%	11%	20%
Tennessee	2%	0%	4%	22%	9%	0%
Texas	6%	5%	22%	13%	5%	3%
Utah	17%	27%	12%	-33%	1%	0%
Vermont	17%	-	13%	-	4%	25%
Virginia	5%	19%	8%	26%	9%	-2%
Washington	21%	4%	2%	12%	5%	9%
West Virginia	24%	14%	20%	38%	1%	18%
Wisconsin	12%	6%	12%	24%	13%	24%
Wyoming	15%	0%	4%	0%	44%	50%
Average Total	**7%**	**9%**	**12%**	**12%**	**5%**	**9%**

Sources: National Association of State Budget Officers, 2001 State Expenditure Report, Summer 2002, <http://www.nasbo.org/Publications/PDFs/nasbo2001exrep.pdf> (5 May 2003).

National Association of State Budget Officers, 1999 State Expenditure Report, June 2000, <http://www.nasbo.org/Publications/PDFs/exprpt99.pdf> (5 May 2003).

Milbank Memorial Fund, National Association of State Budget Officers, and Reforming State Group, 2000-2001, State Health Care Expenditure Report, April 2003, <http://www.milbank.org/reports/2000shcer/index.html> (2 May 2003).

Milbank Memorial Fund, National Association of State Budget Officers, and Reforming State Group, "1998-1999 State Health Care Expenditure Report," March 2001, <http://www.milbank.org/reports/1998shcer/index.html> (2 May 2003).

***All figures rounded to the nearest whole number**

Appendix C: Annual Corrections and Corrections Health Care Expenditures, 1998-2001

State	Corrections Expenditures in 1998	Corrections Health Care Costs in 1998	Corrections Expenditures in 1999	Corrections Health Care Costs in 1999	Corrections Expenditures in 2000	Corrections Health Care Costs in 2000	Corrections Expenditure in 2001	Corrections Health Care Costs in 2001
Alabama	$198	$23	$214	$26	$310	27	336	30
Alaska	164	17	176	17	-	17	-	19
Arizona	766	61	735	73	689	77	711	82
Arkansas	176	25	188	26	202	29	207	29
California	4046	495	4414	536	4986	602	5734	723
Colorado	142	32	8	39	437	42	497	49
Connecticut	395	52	419	53	514	62	546	72
Delaware	150	16	180	15	201	13	203	15
Florida	1585	243	1656	237	1646	-	1676	-
Georgia	740	99	845	115	1162	137	1242	151
Hawaii	126	10	157	11	142	10	146	10
Idaho	134	8	139	9	143	9	163	10
Illinois	1018	52	1149	57	1331	67	1418	75
Indiana	600	25	591	29	617	48	620	6
Iowa	229	11	260	13	295	16	290	20
Kansas	247	20	284	22	317	22	332	23
Kentucky	349	36	375	37	410	33	441	38
Louisiana	459	28	502	32	583	37	601	42
Maine	76	3	85	4	96	5	101	6
Maryland	740	54	840	57	873	62	912	71
Massachusetts	646	48	753	44	773	45	944	46
Michigan	1441	169	1617	177	1865	236	1949	260
Minnesota	371	20	406	23	381	24	415	28
Mississippi	202	21	224	23	266	23	259	26
Missouri	561	49	464	56	463	53	472	53
Montana	82	7	89	8	97	7	102	8
Nebraska	121	11	133	12	165	7	165	10
Nevada	199	29	215	29	157	27	177	30
New Hampshire	51	5	70	6	78	5	76	8
New Jersey	939	76	1001	82	1238	88	1269	91
New Mexico	159	17	170	22	185	26	202	27
New York	2669	7	2869	7	2932	211	2653	216
North Carolina	851	104	918	125	931	157	929	159
North Dakota	34	2	36	2	40	2	45	3
Ohio	1581	100	1670	115	1864	181	1853	187
Oklahoma	334	33	364	40	401	52	428	59

Oregon	452	28	550	44	728	34	614	48
Pennsylvania	1310	123	1379	128	1496	132	1576	139
Rhode Island	129	11	133	12	147	14	161	16
South Carolina	470	53	354	57	528	58	563	60
South Dakota	47	5	50	5	53	5	59	6
Tennessee	408	36	415	36	430	44	468	44
Texas	2443	352	2580	370	3155	417	3299	431
Utah	207	26	243	33	271	22	273	22
Vermont	52	-	61	-	69	4	72	5
Virginia	883	62	928	74	998	93	1090	91
Washington	563	57	684	59	701	66	733	72
West Virginia	68	7	84	8	101	11	102	13
Wisconsin	681	31	764	33	852	41	962	51
Wyoming	40	4	46	4	48	4	69	6
TOTAL	**$30,334**	**$2,799**	**$32,487**	**$3,043**	**$36,367**	**$3,399**	**$38,155**	**$3,688**

Sources: National Association of State Budget Officers, 2001 State Expenditure Report, Summer 2002, <http://www.nasbo.org/Publications/PDFs/nasbo2001exrep.pdf> (5 May 2003).

National Association of State Budget Officers, 1999 State Expenditure Report, June 2000, <http://www.nasbo.org/Publications/PDFs/exprpt99.pdf> (5 May 2003).

Milbank Memorial Fund, National Association of State Budget Officers, and Reforming State Group, 2000-2001, State Health Care Expenditure Report, April 2003, <http://www.milbank.org/reports/2000shcer/index.html> (2 May 2003).

Milbank Memorial Fund, National Association of State Budget Officers, and Reforming State Group, "1998-1999 State Health Care Expenditure Report," March 2001, <http://www.milbank.org/reports/1998shcer/index.html> (2 May 2003).

***All $ in Millions**