

# OPPORTUNITIES FOR COST SAVINGS IN CORRECTIONS WITHOUT SACRIFICING SERVICE QUALITY: INMATE HEALTH CARE



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# **Opportunities for Cost Savings in Corrections without Sacrificing Service Quality:**

## **Inmate Medical Care**

### **FOREWORD**

For many state and local governments, the recent economic crisis in the United States has meant declining revenues at a time when demand for services is at its highest. Although budget constraints have forced many jurisdictions to institute painful cuts, some agencies have been able to develop strategies that trim spending while also maintaining—and often improving—the services on which so many constituents depend.

The state and local governments have individually developed ways to reduce costs of one or more aspects of their services without sacrificing the quality of the service often do not have time to document or disseminate their cost saving approaches. And many governments do not have adequate staff time to find these potentially transferable ideas or to evaluate them.

The Urban Institute is seeking to identify promising approaches that have been tested in at least one jurisdiction and that have reduced costs without sacrificing service quality—and then to share the results nationally. This report addresses inmate health care costs incurred by local and state correctional facilities.

This current series of reports also contains two other opportunities for saving cost without sacrificing service quality: reducing police responses to false alarms and reducing police vehicle fuel consumption. The reports on these other two areas also are available from the Urban Institute.

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# OPPORTUNITY FOR CORRECTIONS COST SAVINGS WITHOUT SACRIFICING SERVICE QUALITY: INMATE HEALTH CARE

This report is organized into two sections. The first is essentially an executive summary for senior correctional managers, central administration officials, and elected officials. The second section is intended for the practitioners of each service or those interested in understanding the approaches in greater depth.

## SECTION 1: SUMMARY

This report focuses on ways to reduce inmate health care costs without sacrificing the quality of inmate health care. It considers health practices in local jails and state and federal prisons.<sup>1</sup>

### THE ISSUE

Typically 9 to 30 percent of corrections costs go to inmate health care. This amounts to hundreds of millions of dollars nationally, and is an aspect of corrections about which the public and many decisionmakers are largely unaware. Inmate health care costs are high in both prisons and jails.

In Washington, D.C., for example, inmate medical services in its jail cost about \$33 million in 2012, a quarter of its corrections budget.<sup>2</sup> This does not include the cost of sending corrections officers to guard prisoners who receive medical treatment outside the jail. On average, D.C. tax payers spend about \$30 a day per inmate for medical, dental, psychiatric, and vision care.

Can these costs be substantially reduced? This report identifies a number of opportunities for corrections agencies to save inmate health care costs and, very importantly, without sacrificing service quality.

### Why Is So Much Money Spent?

Prisons and jails are required to provide health care to inmates at a level comparable to the care they could receive in the community if not incarcerated. It is considered an Eighth Amendment issue regarding cruel and unusual punishment, affirmed by the Supreme Court (*Estelle v. Gamble* 1976). Corrections institutions that do not provide adequate levels of care can be and have been sued, often for millions of dollars.

Another reason for the attention given to inmate health care is that public health and correctional stakeholders increasingly view jails as a public health opportunity to affect:

- the course of various epidemics

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<sup>1</sup> The term “inmate” sometimes is used to refer to jails, and “prisoner” to prisons. We will use the terms “inmate” and “prisoner” interchangeably in this report, which is common lay usage.

<sup>2</sup> Schroth 2009.



- factors that contribute to criminal behavior and the cycle of repeated incarceration, such as untreated mental illness
- the progression of disease so that chronic conditions can be managed in a more cost-effective manner when the inmate is released in the community or locked up again.

Inmates typically receive a more or less comprehensive physical examination upon entry to a jail or prison. Thereafter, they are treated as needed. Some corrections institutions provide annual physicals for inmates incarcerated for more than a year. Medical care usually includes physical, mental, dental, and eye examinations. Sometimes prisoners are sent home from prisons or jails with medical supplies, such as AIDS medications, to continue treatment after release.

## **MOST PROMISING COST-REDUCTION APPROACHES**

Many jails and prisons, probably most, are highly conscious of the high cost of medical care. Many have already implemented a number of approaches to reduce costs while maintaining or improving inmate health outcomes, such as use of in-house dialysis, telemedicine for radiology, and group pharmaceutical purchasing contracts.<sup>3</sup>

This report lays out ways that departments of corrections can consider to reduce inmate medical costs without affecting high standards for inmate medical services. Strategies for cost savings are presented that might be used by a department of corrections directly or included in contracts for outsourcing inmate health care. One or more prisons or jails across the nation use each strategy identified. We identified them from Internet searches and discussions with experts in the field, with the exception of one or two approaches we suggested ourselves.

Many of the approaches profiled in this report have been developed by federal and state prisons, which handle a different population of inmates from those of a typical municipal D.C. jail. Prisons typically have longer lengths of stay and minimal contact with the community. In contrast, jails often experience high turnover of inmates. Many jail inmates have short stays and are booked and released several times within a year. We nevertheless present ideas from both jails and prison systems because most of their cost-saving approaches seem relevant to each.

In reviewing cost-reduction approaches, we used the following criteria to identify the potentially most relevant and actionable strategies:

- **Cost-savings potential** (net after start-up costs)
- **Impact on service quality**
- **Transferability** (to many prison and jail systems)
- **Impact on staff** (such as health and safety of corrections officers)
- **Impact on the community** (such as health and safety of citizens, effects on inmates' families)

Data were not always available to assess all of these impacts quantitatively, but they were considered at least qualitatively.

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<sup>3</sup> Washington, D.C., DOC is one example of a jail system that has implemented these and other approaches.



Cost-reduction approaches for inmate health care are grouped here into two major categories. The first group are approaches that **reduce the amount of medical care needed**, such as by preventive measures and reducing unnecessary medical visits. These approaches reduce frequency of visits to medical care or the severity of ailments that need treatment.

The second group of approaches includes those that **reduce the cost of health care per inmate treated**, such as providing more care in house to reduce transportation and guard costs for external visits to hospitals.

Exhibit 1 lists the approaches that appear most promising within each major category. Section 2 of this report describes these and other approaches in more detail, along with examples of their use and cost savings.

#### **Exhibit 1: Approaches to Consider to Reduce Inmate Health Care Costs**

##### **Approaches that reduce inmate need for health care**

- Screen inmates on intake, and treat diseases and conditions found (to prevent spread and to reduce severity, and hence levels of treatment needed later on.)
- Expand utilization management (screening requests for hospitalization and other services).
- Require co-payments for medical visits.
- Allow direct purchase of over-the-counter drugs by inmates.
- Provide court reminders for those arraigned but not yet jailed (to reduce unnecessary jail time).

##### **Approaches that reduce cost of health care per inmate treated**

- Expand use of telemedicine.
- Reduce nurse time dispensing medications.
- Continue to identify less expensive yet effective medications, for physical and mental ailments.
- Eliminate 24-hour services where not needed.
- Base new health care contracts at least in part on inmate population size.

Each of the above approaches is described briefly below. Most of these approaches are used in multiple prisons or jails. All are likely to be usable elsewhere. For some cost-reduction approaches, one can be confident that they have little or no impact on inmate health either because they lower the cost of the service without altering the service itself (e.g., purchasing pills at a lower unit-cost price) or because the approach has been vetted in the general population (e.g., use of generic drugs versus brand name drugs). For other approaches, more formal evaluation of their health impacts would be desirable.

#### **Approaches that Reduce Inmate Need for Health Care**

- **Medically screen inmates upon intake.** A comprehensive medical and psychological exam when prisoners first arrive is the critical first step to head off epidemics and to reduce severity of untreated illnesses and conditions. Many prisoners have psychological problems and addictions that are as important to identify and treat as physical illnesses. Inmates often immediately benefit from treatments, especially on their previously unknown or untreated conditions.

It is difficult to quantify how much health care cost savings are ultimately realized without undertaking comparisons before and after implementing such screening, which we could not

find if it has been done. The health of inmates after they are released is usually better than when they enter a jail, such as experienced in Washington, D.C. The treatment of AIDS among inmates is considered a key element in reduction of AIDS in the community. Reduction of diseases in the prisons also reduces exposures of prison staff.

- **Employ utilization management.** Utilization management (UM) is a strategy for screening requests for inmate hospitalization and medical visits made by care providers or requested by the inmates. It is used by many jails and prisons, to some extent, but its use can be expanded. It has been found to reduce unnecessary medical treatment and to save money; Florida and California prisons each reduced their costs for specialty and hospitalization services by at least 20 percent with UM.

The potential negative side of UM is the possibility that screenings might deny advanced care to some inmates who need it. Screening also adds to medical staff paperwork and time. To reduce negative effects, UM usually allows doctors to override the screening standards. The possibility of overrides, in turn, requires that UM systems be accompanied by quality controls that monitor the frequency and nature of overrides in order to determine whether the standards are unrealistic or the overrides inappropriate.

- **Require co-payments for medical visits.** Co-payments are modest fees (typically \$5–\$15) assessed on non-indigent inmates for medical visits they initiate. The fees are intended to reduce frivolous requests to see a medical practitioner. They can be assessed at least on the segment of the prison or jail population that spends money on canteen purchases. Co-pays are widely used in prisons but we did not find any evaluations of their impact on the number of inmate medical visits nor health impacts.

The National Commission on Correctional Health Care (NCCHC) opposes co-pays because they may deter some inmates from requesting care when needed. Co-pays also require extra paperwork or computer entries. Co-payments are relatively easy to implement where inmates have some version of an in-house bank account. Where not already used, co-pays might be tried on a trial basis for a year, and then evaluated.

- **Allow direct purchase of over-the-counter (OTC) drugs by inmates.** This approach saves money by reducing medical visits if inmates can treat themselves and by some inmates paying for the medications rather than getting them more expensively as part of a visit to the health care system. The Federal Bureau of Prisons saved \$1.2 million in one year by allowing inmates to purchase 36 types of OTC drugs. The negatives are that many inmates are indigent and cannot afford OTC medications, and some inmates may lack the ability to appropriately select OTC medications that don't have negative effects from mixing with other medications they take or for other reasons. But the same concerns apply to OTCs used by the general population. Many prisons and jails now routinely allow OTC purchases and they have not reported any major problems as far as we could find.
- **Provide court reminders for those arraigned but not yet jailed.** Individuals with chronic mental and physical health issues can be called to remind them not to miss court appearances. Missed appearances slow case processing and lead to more frequent and longer detentions. This practice could reduce corrections health (and other) costs by reducing days in the jail. Coconino County, Ariz., for example, reduced court no-shows from 25 percent of cases to 6 percent of

cases by this approach. It is to the advantage of the community and the persons arraigned not to stretch out the judicial process and sometimes unnecessary incarceration.

## Approaches that Reduce Cost of Health Care per Inmate Treated

- **Expand use of telemedicine.** Telemedicine is the use of two-way video and audio between patients and doctors who are located remotely from the patients. When appropriate specialists are not available in house, telemedicine can reduce costs by eliminating the need and expense to transport inmates to external health care under corrections officer or other supervision. Telemedicine also can reduce costs where demand for a medical specialty does not justify specialized doctors to be available on regular schedules inside the jail. It is especially useful for some specialties, such as radiology, dermatology, and psychiatry. It is less useful for others, such as orthopedics and cardiology.

Texas and Ohio prison systems saved \$200–\$1,000 per inmate treated via telemedicine, compared to what the same visits would otherwise have cost. The start-up costs (mainly the purchase of the video system) typically range from \$50,000 to \$75,000. The anticipated volume of telemedicine consultations needs to be high enough to justify the start-up cost.

Besides saving costs, telemedicine expands the pool of medical specialists who can be used, as some doctors may be reluctant to practice in a correctional setting. Use of telemedicine therefore may improve health care. Because telemedicine reduces inmate transports it has the side benefit of reducing risks for the community and the corrections officers themselves.

- **Reduce nurse time dispensing medications.** A number of new technologies and procedures are being used for more efficient delivery of medications to inmates. For example, San Bernardino, Calif. developed a dispensing system carried on the nurse's cart that stores and packages the medications needed for each inmate. The system reduced nurse time and time of the corrections officers who accompany them. It also reduced errors associated with dispensing medications, which improves care, reduces the need for subsequent care, and decreases liability. No quantitative data was available, just strong perceptions that there were significant savings in time and money.
- **Continue to identify less expensive yet effective medications for physical and mental ailments.** Many institutions already use generic and other less expensive drugs where the medical equivalency to more expensive options is close if not identical. Further use of these alternate medications may be possible. The Florida DOC changed medications used for schizophrenia and bipolar disorders, and saved over \$1.3 million in a three-month period. The potential seems high for reducing health care costs by continued review of the list of preferred medications, as is done each year in Medicare and other health insurance programs for the general population.
- **Eliminate 24-hour services where not needed.** Costs might be saved by reducing the number of in-house medical staff on night shifts. The key tradeoffs are among the cost of the night shift staff, the cost of transporting inmates in need of emergency services after daytime medical shifts have ended, and the ability to use local fire or emergency medical services. Emergency services take more time to reach inmates than for the general population because of jail or prison security.

As an alternative to maintaining all-night medical services, corrections departments might consider cross-training some correctional officers as emergency medical technicians (EMTs), which has long been done with firefighters. Getting trained emergency care to inmates increases the likelihood of a positive outcome to an emergency health problem.<sup>4</sup>

Cross-training corrections officers as EMTs may have the positive side effect of changing the view of inmates toward the corrections officers, which may reduce tensions. It also opens up a new career path for corrections officers, and reduces risks for those who otherwise have to enter jails or prisons to deliver emergency care.

- **Base new contracts for inmate health care at least in part on inmate population size.** Some corrections agencies use fixed price contracts for providing inmate health care, but they are fraught with financial risk to the corrections department if the number of inmates decreases, or to the contractor if the number of inmates increases. If contracting out, a major part of the contracted amount should be based on the annual size of the inmate population. Contracts also should consider incentives for improved efficiency that do not adversely affect inmate health, and should require the contractor to provide detailed data needed to evaluate inmate health and the efficiency of the services delivered. The contract might stipulate the inclusion of some desired cost-saving approaches, such as use of telemedicine. Some state prisons already have included a requirement for such cost-saving approaches in their contracts.

It is important to note that when considering contracting out for health services, the liability for failure to provide adequate health care to inmates still rests with the government, regardless of whether services are provided through contracted or in-house staff.<sup>5</sup> So the level and quality of care must be reflected in the contract.

## STUDY LIMITATION

We found a lack of adequate data on health impacts for some of the cost-saving approaches presented here. Many prison and jail systems seem to have only limited information on the outcomes of their inmate health programs.

While the descriptions of cost-saving approaches profiled in this report often imply that the strategies did not affect inmate health adversely, we acknowledge the challenges to measuring impacts on inmate health. At the end of Section 2, we discuss some strategies that might be employed to estimate the effects of cost-saving approaches on inmate health. The NCCHC and the State of California, among others, are trying to develop metrics that can be used to evaluate inmate health better.

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<sup>4</sup> A senior Washington, D.C., corrections official told us that there might be some precedent for cross-training correction officers as EMTs, but we were not able to identify a specific example.

<sup>5</sup> Faivier, K. *Health Care Management Issues in Corrections*, Lanham, MD, United Book Press, 1997, cited in McGillen.

## **SECTION 2: DETAILED ANALYSIS**

Various strategies have been used by jurisdictions across the nation to significantly reduce inmate health care costs while maintaining the quality of overall inmate care. Exhibit 2 provides an expanded list of these approaches (beyond those in Exhibit 1 above). For each strategy, we later provide examples of corrections systems that have documented cost savings and other benefits, and also any negative impacts found with the approaches.

The report concludes with examples of how some jurisdictions have employed multiple, simultaneous cost-reduction approaches to synergistically lower the cost of health care in their facilities, followed by a brief discussion of metrics for inmate health.

## **Exhibit 2: Expanded Approaches for Reducing Inmate Health Care Costs**

### **REDUCE DEMAND/NEED FOR MEDICAL CARE**

#### **Improve Health of Inmate Population**

- Prevent chronic and communicable diseases
- Manage communicable diseases

#### **Reduce Unnecessary Consumption of Medical Services**

- Use guidelines for non-emergent hospitalization and certain other care
- Require co-payments for medical visits

#### **Divert/Release Sick Individuals**

- Divert low-risk sick from incarceration
- Compassionate release of seriously ill
- Remind arraigned persons of their court appearance dates (especially individuals with chronic mental and physical health issues, so that they do not miss court appearances and are sent to jail sick)
- Use nurses to screen arrestees for health problems before being brought to jail

### **REDUCE COST FOR TREATING AN INMATE**

#### **Reduce Cost of Pharmaceuticals**

- Use cheaper, equivalently effective drugs (e.g., generics, lower-cost choices)
- Negotiate/join consortiums to lower unit cost of drugs
- Allow direct purchase of OTC drugs by inmates

#### **Reduce Cost of Using Outside Medical Care**

- Use telemedicine
- Renegotiate fees for hospital and clinical services
- Share medical services with other organizations
- Use medical students under supervision
- Create secure areas of hospitals (for inmate stays)

#### **Use In-House Medical Services When Less Expensive**

- In-house services versus contracting out for infrequently used services
- Reduce nurse time dispensing medications
- Use less expensive staff (e.g., physician's assistants) for some procedures
- Eliminate 24-hour services where not needed
- Use longer nurse shifts

#### **Tighten Contracting and Auditing**

- Use per-capita contracting if contracting out services
- Check bills for errors

## REDUCE DEMAND/NEED FOR MEDICAL CARE

Practices that improve overall inmate health and that prevent disease, injuries, and other health problems can reduce the need for medical services. Controlling health problems also can reduce consumption of medical services and hence costs. In addition, some practices reduce demand by screening requests for services before delivering them, or by putting up small barriers like co-pays to make sure they are sincere requests.

### Improve Health of Inmate Population

Management of chronic diseases helps reduce their worsening and the need for much more expensive treatments (e.g., treating hypertension with relatively inexpensive medication can prevent strokes and heart disease). While possibly of less importance for a jail than a prison with longer-term prisoners, it still seems good practice to do prevention and use early treatment strategies.

Management of communicable diseases reduces their spread and worsening, and hence the volume of treatment needed.

***Prevent chronic and communicable diseases.*** Many jails and prisons offer a variety of services to prevent or reduce complications of chronic illness and promote health maintenance. As noted earlier, new inmates often receive medical screening upon intake, and are given treatment for any medical problems found. On-site (in-jail) clinics may provide specialty services including ophthalmology; podiatry; neurology; orthopedics; infectious disease; cardiology; and gynecology. Services not provided within a jail or prison or beyond the scope of on-site providers are referred to off-site providers.

***Manage communicable diseases.*** Efforts to control communicable diseases from spreading in jail also can help reduce demand for inmate health services. National estimates indicate that prison and jail inmates have higher rates of communicable diseases than the general public.<sup>6</sup> Their rates are high upon entry, and may worsen while in custody if they engage in risky behavior such as “unsterilized tattooing and piercing, unprotected sex, fighting (which may result in blood-to-blood contact), sharing personal hygiene items such as razors, and IV or intranasal drug use.”<sup>7</sup> Treatment of communicable diseases can be expensive, with one 10 year old study estimating the annual cost of care for serious communicable diseases at \$18,000–\$30,000 per prisoner treated.<sup>8</sup> Thus reducing diseases can reduce costs. And improved management of mental illnesses may contribute to a safer correctional environment, which also can reduce costs.

- ***Washington, D.C., jail***—Because of the high rates of HIV/AIDS within the D.C. jail and the broader community, the D.C. DOC has focused on combating this epidemic and has consistently received the highest grades in the city from the Appleseed Center, a D.C. organization that evaluates HIV-reduction efforts. The trend in AIDS in D.C. has been downward since 2006, in part because of diversion efforts and community prevention and care programs.<sup>9</sup> The D.C. DOC uses Ora-Quick Rapid Kits to provide HIV testing to eligible inmates at intake, sick call, and release. Inmates with positive test results receive a referral for serological confirmatory testing and further counseling. Inmates with negative results receive counseling on prevention. An

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<sup>6</sup> Bureau of Justice Assistance 2000.

<sup>7</sup> Kinsella 2004.

<sup>8</sup> Kinsella 2004.

<sup>9</sup> Information provided by DOC Office of Strategic Planning and Analysis, September 2012.



inmate can refuse to be tested without threat of disciplinary action, but then is referred to a medical professional for further counseling. Approximately 10 percent of inmates refuse to take an HIV test.<sup>10</sup> Inmates may seek HIV testing voluntarily at any point during their incarceration.

The current contractual health care provider in D.C. DOC is responsible for ensuring that inmates who test positive for HIV/AIDS on intake receive the counseling and confirmatory serology testing prior to being housed. Test results are shared with the inmate by a medical professional, and a plan of treatment is designed that includes counseling, support, and appointments with the chronic care clinic for ongoing care, medication as needed, mental health support, and discharge planning.

In order to prevent the spread of HIV while an infected inmate is in custody, DOC implemented a condom distribution program for inmates in the early 1990s.<sup>11</sup> The D.C. Department of Health provides DOC with free condoms for distribution in the jail. They are accessible during health education classes or upon request to health care staff during intake, clinic visits, or sick call. Medical workers offer condoms to all inmates. To preserve anonymity, no documentation is made of the requests.

## Reduce Unnecessary Consumption of Medical Services

*Use guidelines for approving non-emergent hospitalization and certain other care*—Many state and local corrections systems have implemented a process called utilization management (UM) to evaluate the appropriateness of the type and level of the health care services requested by staff, or by inmates. This is similar to cost-containment strategies used by commercial health insurance companies in the general population.

Based on a patient's symptoms, the UM system uses pre-established guidelines to determine "the types of medical services that would be reasonable, necessary, and effective."<sup>12</sup> Once guidelines have been developed, corrections health systems often set up a process known as prospective review where an independent UM specialist reviews referrals for non-urgent specialty medical treatment that is unavailable in the correctional facility. The decision standards can be overridden if the specialist or the referring physician determines extenuating circumstances require the care. Override rates should be monitored; rates exceeding 10 percent might indicate either a lack of acceptance of the UM system by medical staff or problems with the guidelines as developed.<sup>13</sup>

This process has enabled corrections systems to reduce the amount of unnecessary medical services provided to inmates and to reduce the incidence of defensive medicine "by providing physicians with an objective and evidence-based justification for denying unnecessary medical treatment."<sup>14</sup>

- **Florida:** The Florida Department of Corrections started a UM program in the early 1990s that cut spending on hospitalization by 5 percent in its first two years (from \$11.9 million in FY 1990 to \$11.3 million in FY 1992), despite a 20 percent increase in the average daily prison population

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<sup>10</sup> Lesansky 2010.

<sup>11</sup> Only a few correctional systems offer this program because most have laws that prohibit sexual activity among inmates, and do not want to appear as condoning the activity.

<sup>12</sup> Taylor 2012.

<sup>13</sup> Taylor 2012.

<sup>14</sup> Taylor 2012.

during the same time period.<sup>15</sup> The true net savings may have been close to 21 percent, if hospitalization was requested for the increased population at the same rate as the existing population.<sup>16</sup> In a later (2008) version of the program, Florida established a formal UM board composed of corrections department nurses and doctors, responsible for reviewing each case recommended for hospital admission to determine if treatment at a hospital was necessary. In its first 10 months (January–October 2008), the department reported that it avoided 539 prisoner admissions, reduced the length of hospital stays, and saved \$4.9 million.<sup>17</sup>

- **Federal Bureau of Prisons:** In 1995, the BOP started a process by which policy and medical personnel reviewed and approved medical treatment requested by BOP field personnel before prisoners could receive surgery or in-patient hospitalization services. A reduction in the number of external care visits resulted in \$785,000 of savings in 1998.<sup>18</sup>
- **California:** Although the California Department of Corrections and Rehabilitation (CDCR) has been using a UM system since 1996, the system was not as effective as they wished. Changes in administration (namely, the appointment of a Receiver) led to significant cost savings. Expenditures on contracts for specialty medical care services declined by 44 percent, from \$695 million in 2008–09 to \$388 million in 2010–11, primarily due to a decline in referrals for the specialty care. Between October 2009 and October 2011, the rate of referrals decreased from 98 to 70 per 1,000 prisoners per month.<sup>19</sup>

Data on the rate at which medical staff override the recommendations of the UM system indicate that the system may not be used consistently across the system's 33 prisons. The override rate ranged from less than 10 percent in two prisons to more than 40 percent in three others. A proposed solution was to centralize control of the UM system so that overrides require approval by headquarters staff, to include UM override data in monthly performance reports, and to increase training on use of UM. California estimates that a reduction in the override rate to 10 percent could result in approximately 19,000 avoided referrals and another \$80 million saved annually.<sup>20</sup>

A formal system of Utilization Management and Prospective Review may also help guard against lawsuits as well as reducing costs of care. Inmates in a number of jurisdictions have sued over inadequate health care. Consideration of the reasons for lawsuits and measure to avoid them can save millions of dollars. Between 1996 and 2002, the State of Washington spent more than \$1.26 million for judgments, settlements, and claims regarding poor prison health care.<sup>21</sup>

We did not find reports showing the amount, if any, of adverse effects from using UM in jails or prisons. UM is widely used and generally accepted by insurance companies and Medicare for the general population. The continued use of UM in many prisons and jails implies no major impacts, but it would be desirable to have research on adverse impacts.

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<sup>15</sup> Kinsella 2004.

<sup>16</sup> We computed the 21 percent as follows:  $(1.2 - .95) / 1.2 = 0.21$ .

<sup>17</sup> Kinsella 2004.

<sup>18</sup> GAO 2000.

<sup>19</sup> Taylor 2012.

<sup>20</sup> Taylor 2012

<sup>21</sup> Kinsella 2004.

**Require co-payments for medical visits**—Prisoners who are not indigent can be asked to make an annual co-payment for their health care, or a co-pay for each medical service required, much as required by many medical insurance plans used for the general population. A small survey of jails in 2005 found that approximately 60 percent assess a co-pay for pharmacy (usually about \$5) and medical office/physician visits (usually about \$10). About half of the jails surveyed (45%) assess a co-pay for nurse/LPN visits (usually \$5) or for dental examinations/care (usually \$10), while a quarter of jails charge a fee for eye care examinations and prescriptions, with exams usually costing \$10 and prescriptions \$15. According to the report<sup>22</sup>:

*Jurisdictions vary widely in how they charge and account for inmates fees.... Some jails charge different fees for visits with a nurse or physician, while others simply charge for “medical office visits,” which includes both categories of care, or assess a single [annual] “medical fee” that includes a broad range of services, including pharmacy, dental care, and eye care.... Timing and the specific circumstances of fee payment also vary. In some jurisdictions, small co-pay is charged at each visit to a medical service provider. Some jurisdictions noted that outstanding medical fees from a prior time in jail are collected upfront at a later booking.*

A survey of state corrections health systems in 2009 found that the vast majority of states assess some type of medical co-payment, which often is not applied if the individual is indigent, has a chronic disease, needs emergency care, suffered a work-related injury, or is staff-ordered. The state prison system in New Hampshire assessed a co-pay of \$3 and collected \$19,000 in annual revenue; exemptions were made for indigent inmates or those who had suffered a work-related injury.<sup>23</sup>

The intent of inmate co-pay programs is not to generate revenue, as the fee/co-pay amounts tend to be small and collection rates low due to the large numbers of indigent inmates.<sup>24</sup> Instead, they serve as a “low-threshold deterrent” to frivolous sick calls.<sup>25</sup> The National Commission on Correctional Health Care (NCCHC), in its discussion of inmate medical co-payment programs, notes that sick calls are abused by some inmates, which strains available resources and makes it more difficult to provide adequate care for inmates who really need the attention.<sup>26</sup> However, despite the intended benefits of co-pays and their prevalence in jails, the NCCHC is opposed to the establishment of a fee-for-service or co-payment program. In a 1996 policy statement, re-affirmed in 2005, the commission expressed concern that inmates with limited resources may delay or forgo care in order to purchase commissary items, pay legal fees, or support dependents; as a result, their perceived “minor” medical issues may worsen, endangering the health of the inmate and heightening the risk that communicable infections will be spread.<sup>27</sup>

Research is needed to see if the negative effects of co-pays do occur, and whether the co-pays in fact save money. A review of fee-based systems under consideration in Florida noted that money might not be saved when the entire system is taken into account. This includes the amount of time needed by the nurse to initiate the co-pay, then to deduct funds from the inmate’s account, and lastly the time used in investigating complaints or grievances by inmates over the charges for services.<sup>28</sup>

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<sup>22</sup> Krauth and Stayton 2005.

<sup>23</sup> C. Hill 2010.

<sup>24</sup> Krauth and Stayton 2005.

<sup>25</sup> Krauth and Stayton 2005.

<sup>26</sup> NCCHC 2005.

<sup>27</sup> NCCHC 2005.

<sup>28</sup> McGillen c. 2009.

In light of these concerns, the NCCHC recommends against instituting a fee-based model for medical services and instead advocates for “a properly administered sick call program, [which] keeps costs down through a good triage system [and] has a lower level of qualified staff. See the complaining inmate first, with referral on to higher levels of staff only as medically indicated.” Recognizing that some corrections systems will implement such a model, the NCCHC also includes recommendations for how a jurisdiction should implement an inmate medical co-payment system:

- Examine the management of sick call, use of emergency services, system of triage, and other aspects of the health care system for efficiency and efficacy.
- Track the incidence of disease and all other health problems pre- and post-implementation; data should demonstrate that adverse outcome indicators, as well as incidents of delayed diagnosis and treatment of serious medical problems within the facility, are either consistent with or lower than the levels before implementation.
- Inform inmates on the details of the fee-for-service program upon admission, including situations in which they will or will not be assessed a fee.
- Assess a fee only for services initiated by the inmate and after the services have been rendered.
- Keep fees low.
- Require that care not be denied because of a record of non-payment or current inability to pay.
- Ensure that inmates have a minimum balance in their account to access necessary hygiene items and OTC medications.
- Develop a grievance system that tracks complaints regarding the program; a consistently high rate of grievances should draw attention to the need to work with staff to address specific problems that may have accompanied the fee-for-service program.
- Discontinue the program upon evidence of increased infection rates, delayed diagnosis and treatment of medical problems, or other adverse outcomes.

While we did not find evidence about how effective co-pays were in reducing costs and what effects they may or might not have on inmate health, they seem worth a trial, primarily because co-pays have been used in many jails and prisons over several years, and the reports on them implicitly imply they have been successful. Jails or prisons might consider implementing co-pays for a year, at least for inmates who are not indigent, have a prison bank account and use the canteen system. If tried, it would be advisable to follow the NCCHC guidelines (if for nothing else than legal protection), and determine the savings versus inmate complaints, and indicators of impacts on health.

## Divert/Release Sick Individuals

Although treatment and detox centers may be a better option than jail for individuals with serious mental health and/or substance abuse issues, many jurisdictions lack adequate amounts of these services, leaving law enforcement to detain individuals who have these problems and who have allegedly committed low-level offenses. Some jurisdictions have developed diversion programs and facilities to house those with a very short-term need for confinement, such as for inebriation, often with significant cost savings.<sup>29</sup>

- **Washington, D.C.:** The Corporation for Supportive Housing (CSH) operates the Frequent User Service Enhancement (FUSE) program in D.C., which places individuals into permanent supportive housing in an effort to reduce consumption of jail, shelter, and emergency system resources.<sup>30</sup>

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<sup>29</sup> Hall 1987; American Jail Association 1994; Bureau of Justice Assistance 2000.

<sup>30</sup> Fontaine et al. 2011.

- **Seattle, Wash.:** The Downtown Emergency Service Center, funded through the city's "Housing First" program, built a 75-unit facility for chronically inebriated homeless individuals. The facility provides permanent housing and access to services to help reduce consumption of alcohol and illicit substances. Initial findings suggest that local agencies and support services had saved \$4 million in spending on this population in the first year of operations.<sup>31</sup>
- **Minneapolis, Minn.:** The "Downtown 100" program targets 50 "frequent users" who commit crimes in the 120-block downtown core. Community-based organizations and agencies work with police officers, prosecutors, probation officers, and others to define a path to a better, more crime-free future for the chronic offenders. After its first year, crime committed by the 50 offenders dropped by 74 percent, and the percent with housing rose from 20 percent to 50 percent during 2010.<sup>32</sup> (For future research, one could compare the cost of the program versus estimated savings that would have accrued if the 74 percent of the minor crimes that were deterred had resulted in jail terms.)
- **New York City:** A pilot program like the Washington, D.C., DOC FUSE program found that the program pays for itself in averted system costs, and began to generate savings in year 3 (if used for large numbers of people diverted from jail terms).<sup>33</sup>

**Court reminders for people who are arraigned**—Individuals with chronic mental and physical health issues (and perhaps others too) may need reminders so they do not miss court appearances. Missed appearances slow case processing and lead to more frequent and longer detentions in jail. Some local governments have developed court appearance notification systems that significantly reduce failure to appear rates.<sup>34</sup>

- **Coconino County, Ariz.:** The county developed a program where a volunteer from the police department calls individuals who had received a citation to remind them of their upcoming arraignment. Of the group that was called, 12.9 percent failed to appear in court, compared to 25.4 percent of the control group; when the volunteer callers were able to speak directly with the defendant, the failure to appear rate diminished to 5.9 percent.<sup>35</sup>

Missing court appearances can lead to more frequent and longer detentions in the jail, generating added health costs. Reminder programs are typically operated by the courts or by pretrial service agencies, but require partnership with the jails in order to determine which individuals are in custody and do not need to be contacted. Data were not available on the impact of this program on reduced inmate admissions and inmate-days, which if collected could easily be translated to estimated cost savings, because the cost of initial health screening and average daily health costs are known.

**Screening arrestees prior to bringing them to jail**—Sometimes arrestees are injured or ill and need virtually immediate health care. If brought to the jail and then they shortly have to be taken to a hospital or other medical care, the costs are higher than if they were taken under guard directly to the medical care. It also can cost extra if the arrestee is taken to a hospital needlessly before being taken to jail. The question is who screens them to make this determination.

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<sup>31</sup> Larimer et al. 2009.

<sup>32</sup> Brandt 2011.

<sup>33</sup> Corporation for Supportive Housing 2009.

<sup>34</sup> Community Resources for Justice 2011.

<sup>35</sup> White 2006.

**Pinellas County, Fla.:** The county developed an Ask a Nurse Program in which law enforcement officers of any jurisdiction in the county can call the jail and speak with a Medical Supervisor about injuries to an arrested subject, and whether they should be transported to the jail or a hospital.<sup>36</sup>

## REDUCE THE COST FOR TREATING AN INMATE

The second major strategy for reducing inmate health care costs is to reduce the cost of delivering medical care to an inmate when needed. This includes lowering the cost of pharmaceuticals, and the cost of medical visits and procedures.

### Reduce Cost of Pharmaceuticals

Some jails may be paying too much for inmate medications. There are several approaches to reducing their costs.

**Use cheaper equivalents**—It almost goes almost without saying that generics should be used in place of name brands where the drugs are considered medically equivalent. Physicians do need to be able to override the use of generics when not totally equivalent or for reasons of a particular patient's medical issues, but usually the generics are fine. Use of generics with overrides is widely used for the general population, and should be done for inmates, too.

- **Florida:** The Department of Corrections increased its use of generic drugs. For example, it removed Seroquel® from its formulary and replaced Risperdal® with a generic for the treatment of schizophrenia and bipolar disorder. Between April and September 2008, the DOC spent \$1.3 million less for frequently used anti-psychotic drugs than during the same period in 2007.<sup>37</sup>

In addition to generics, there are many non-generic drugs that are as effective as others that cost more. A corrections department can establish a list of preferred medications based on effectiveness and unit-cost factors. In his report on pharmaceutical cost savings for jails, Dr. J. Keller highlights three reasons why medications that produce the same results in patients are priced at different rates.<sup>38</sup>

1. **Name:** Many medicines are identical in efficacy but cost very different amounts to administer. For example, one day's therapy with Cephalexin costs \$1.32, while one day's therapy with Ceftin—an antibiotic oral cephalosporin identical in efficacy—is \$8.04.
2. **Dosage:** The dosage of a medicine may affect its cost to administer. Some medicines cost more, not less, per unit for larger quantities. One 150 mg tablet of Amitriptyline costs \$0.24, whereas the cost of a 75 mg tablet is only \$.07; prescribing two 75 mg tablets rather than one 150 mg tablet will save 42 percent of the prescription price.

Sometimes the pricing is reversed, and medications cost less for a large pill than a smaller one. For example, the price of a Ranitidine 150 mg tablet is \$0.34. The larger 300 mg pill is actually cheaper at \$0.32. Splitting the larger pill can result in savings of 53 percent. Dyazide has a typical

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<sup>36</sup> McGillen c. 2009.

<sup>37</sup> Lize et al. 2009.

<sup>38</sup> Keller 2003.

dose of 25/37.5 mg; splitting a 50/75 mg tablet (which costs \$0.04) is less expensive than prescribing a 25/37.5 tablet at \$0.32 per pill. One must also consider the cost of nurses or others in splitting tablets, if significant, which may affect the cost-tradeoff for splitting pills.

Cost anomalies in different size pills may result from one size being the most common to prescribe, and is produced in much larger quantities than other sizes, with attendant economies of scale.

3. **Packaging:** Pharmaceutical companies often package therapies that include multiple ingredients into single doses—and charge accordingly. For example, the American College of Gastroenterology recommends treating *H. pylori* with four agents. “Since it is hard for practitioners to remember what the four agents are, not to mention the doses and lengths of treatment, the pharmaceutical companies have conveniently packaged *H. pylori* therapy under the trade names Previpac and Helidac.” These two therapies cost \$272.50 and \$156.76, respectively, but if the provider were to prescribe the ingredients individually, the total price would be \$33.60.

Knowledge of such cost factors can help in choosing equally effective medications at lower cost.

***Negotiate lower prices, or join a buying consortium***—Jails and prisons often purchase medications through discounted rates, but where not done, the following approaches might be considered.

The cost of a pharmaceutical preferably should be no more than the lesser of the state Medicaid price, Average Wholesale Price, or store sale price.<sup>39</sup> Lower costs may be obtained by negotiation with drug companies or pharmacies, or joining buyer consortiums.

**State Medicaid price:** The former (federal) Health Care Financing Administration (HCFA), now reorganized into the Center for Medicaid and Medicare Services, negotiated with the pharmaceutical industry low prices for drugs for Medicaid patients. Although jails cannot purchase drugs for inmates under Medicaid (inmates do not qualify), jails can try to negotiate paying the HCFA price. The HCFA prices are available online. They have two components, the Federal Upper Limit (FUL) and the Maximum Allowable Cost (MAC). With this information one can price shop for a pharmacy willing to charge the state Medicaid rate.<sup>40</sup>

**AWP less a discount:** For drugs that do not have an HCFA price, jails or prisons can offer to pay a discount from the Average Wholesale Price (AWP). The AWP is derived from manufacturers and distributors prices for every drug on the market. On average, the AWP is at least 20 percent above true wholesale costs (and for some drugs it is as much as 65 percent above AWP). Jails might propose paying say 12 percent below AWP—still a reasonable profit for the pharmaceutical provider.

**Sale price:** Pharmacies often put certain drugs on sale as an advertising strategy. Sometimes sale prices are less than the true wholesale cost and provide a potential cost-saving opportunity.

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<sup>39</sup> Keller 2003.

<sup>40</sup> Keller 2003.



Some jails have also been able to negotiate lower “fill fees,” or the price a pharmacy charges to fill a prescription. The fill fee usually remains constant no matter how large the prescription. One can ask to pay less, or to pay the HCFA fill-fee rate.

Under Medicaid rules, pharmacies may charge fill fees only once per month for ongoing prescriptions.<sup>41</sup> Jails may seek ways to reduce the number of prescriptions written, especially small prescriptions, to take advantage of monthly bulk purchase prices. Another approach is to use a “stat box ... the functional equivalent to the sample medication closet in most doctors’ offices, [which] contains bubble-packed cards of the medications that [are] prescribe[d] most frequently.” A well-stocked stat box will reduce fill fees and may eliminate the need for an on-call pharmacist who may charge a premium for after-hours work.<sup>42</sup>

- **New Hampshire:** The New Hampshire State Department of Corrections participates in a multi-state regional pharmaceutical buying group, and was able to purchase drugs at 40 percent below the wholesale price.<sup>43</sup>
- **Florida:** Florida joined the Minnesota multi-state pharmaceutical purchasing cooperative and used in-house rather than contract personnel to dispense the drugs. This saved \$2.4 million in 2008. That continued to 2012. In 2012 the State of Florida was considering its own statewide purchasing of pharmaceuticals for all health agencies; if the costs are lower than those from the Minnesota consortium, the state DOC will switch.<sup>44</sup> Florida DOC also partners with the Florida Department of Health to obtain discounts for drugs to treat inmates with HIV and sexually transmitted diseases.<sup>45</sup>
- **Federal BOP and VA:** The BOP cooperates with other agencies to save money through bulk purchasing. In 1993, the Department of Veterans Affairs included BOP in contracts to obtain discounts on high-volume purchases of pharmaceuticals. The result was an average annual savings of \$760,000.<sup>46</sup>

***Inmate purchase of over-the-counter (OTC) drugs***—Some correctional systems allow inmates to purchase OTC drugs with their own funds from an in-house pharmacy. This can save money in two ways: self-treatment for minor ailments without burdening the medical system, and lower medication costs than what might be prescribed. While indigent inmates will not be able to afford purchasing their own OTC medications, many other inmates can afford them. It is relatively easy to implement payments where inmate populations already make purchases of other sundries. OTC drugs then can be treated the same as any other sundry. Some worry about inmates overmedicating themselves, or mixing drugs improperly, and that is a concern but is not mentioned as a major problem for inmates in articles we read on the subject.

**Federal Bureau of Prisons:** BOP reported saving \$1.2 million in FY 1999 by allowing inmates to purchase 36 types of OTC pharmaceuticals. Inmates were given access to the commissary once a week for such purchases. They also expected this practice to reduce the number of inmate sick calls but did not report on the results. BOP has considered adding pharmaceutical vending

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<sup>41</sup> Keller 2003.

<sup>42</sup> Keller 2003.

<sup>43</sup> Kinsella 2004.

<sup>44</sup> Riemers 2012.

<sup>45</sup> Lize et al. 2009.

<sup>46</sup> GAO 2000.

machines to this initiative, which would allow inmates access to some OTC drugs 24 hours a day, 7 days a week.<sup>47</sup>

## Reduce Cost of Using Outside Medical Care

Various technologies and approaches may help reduce the cost of outside medical care when the capability is not available inside the jail.

**Use of telemedicine** —Telemedicine, the delivery of health care services via interactive audio and video technology, can reduce the cost of delivering care and increase inmate access to care, particularly specialty care. Live images of the patient can be transmitted over broadband Internet or telephone lines to a doctor's office. Equipment such as exam cameras, monitors, and electronic stethoscopes allow physicians to treat patients remotely without meeting face-to-face.<sup>48</sup>

Telemedicine is used by many public and private health care providers throughout the country to treat patients who otherwise would have to travel long distances to confer with a health care professional. Telemedicine is used to provide some health care service to inmates in 26 of 44 states surveyed by the *Corrections Compendium*.<sup>49</sup>

The cost of guarding inmates transported to medical care outside of prison is approximately \$2,000 per inmate per 24 hours.<sup>50</sup> Even for part of a day, the costs associated with transporting an inmate to care can be substantial. Contract costs with physicians may also be lower using telemedicine because it provides the opportunity for a larger pool of physicians to bid, rather than only those near the prison.<sup>51</sup> Depending on the frequency with which telemedicine is used, the costs for staffing and the start-up costs for the equipment, and then maintenance, may be less than the savings generated from avoiding outside medical trips, as found in examples below.

Some research reports find that use of telemedicine in prisons or jails is more effective for some specialties such as radiology, psychiatry, and dermatology, and less effective for other specialties, such as cardiology and orthopedics.<sup>52</sup> Telecommunication costs have been dropping and video has been improving in clarity, so the cost and utility may well improve with time.<sup>53</sup>

Correctional facilities have found that telemedicine has some side benefits: telemedicine increases public safety by requiring fewer inmate transports outside the facility. And telemedicine also may improve inmates' access to health care by expanding the provider network to include specialists and some physicians who would not otherwise see inmates.<sup>54</sup>

- **Texas and Ohio:** These states reported saving \$200–\$1,000 every time they used telemedicine to prevent an external office visit. The average cost of installing telemedicine in a prison unit ranged from \$50,000 to \$75,000, depending on the type of

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<sup>47</sup> GAO 2000.

<sup>48</sup> Taylor 2012.

<sup>49</sup> Hill 2010.

<sup>62</sup> GAO 2000.

<sup>51</sup> Taylor 2012.

<sup>52</sup> Abt Associates 1999.

<sup>53</sup> Taylor 2012.

<sup>54</sup> Taylor 2012.

equipment and whether communication lines needed to be added. It cost about \$60 per hour to communicate for telemedicine.<sup>55</sup>

- **Lewisburg Federal Prison:** Lewisburg conducted a trial of telemedicine to determine its impact on costs. For 35 external consultations the average cost was estimated to be \$788. This included medical care expenses (\$320), administrative expenses (\$197), and security/escort costs (\$271). For the 35 avoided external consultations the savings was \$27,580.<sup>56</sup>

**California:** In the past few years, the Receiver in California has designated a number of specialty-care services for which telemedicine is to be used unless the physicians involved consider it impractical. Policymakers have contemplated expanding the use of telemedicine to primary care, particularly at geographically remote prisons where it is difficult to hire qualified physicians. A recent report estimates that if the rate of telemedicine utilization in California was increased to a rate similar to Texas (about 40,000 annual appointments), annual savings would be in the low tens of millions of dollars.<sup>57</sup>

- **Pennsylvania:** Use of telemedicine averted 13 or 14 medical air transfers to Federal Medical Centers from three Pennsylvania prisons, saving about \$59,000. All but one of these avoided transfers were psychiatric patients who would have been airlifted to MCFP-Springfield.<sup>58</sup>

***Renegotiate fees for hospital and clinical services***—Prices for hospitalization and doctor visits vary depending on a number of factors. Without comprising service quality, some corrections agencies across the nation have been able to negotiate better deals when armed with more knowledge on true costs and by joining forces with other institutions to obtain economies of scale and bargaining power (similar to what was discussed above for purchasing medications). Some corrections agencies have joined or developed a network of health care providers with competitive rates for medical and dental services that cannot be provided in house.

- **Georgia:** In 2008, the Association of County Commissioners of Georgia introduced the Inmate Medical Savings Program, which allowed counties to send jail inmates to the hospital and be charged the Blue Cross/Blue Shield of Georgia discounted network rates. Counties saved approximately 59 percent of billed charges. In 2011, a law (O.C.G.A. § 42-4-15) limits the amount hospitals could charge for “Emergency Care” and “Follow-up Care” to the allowable Medicaid rate.<sup>59</sup>
- **Scott County, Ill.:** Inmates are given temporary health insurance cards if they are to be treated outside the jail. This saved the county \$74,342 in its first six months of full implementation. Under the new plan, (administered by United Healthcare), inmates receive discounts similar to what an insured patient would receive. About 30 percent of the applied

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<sup>55</sup> Kinsella 2004.

<sup>56</sup> McDonald et al. 1999.

<sup>57</sup> Taylor 2012.

<sup>58</sup> McDonald et al. 1999.

<sup>59</sup> ACCG 2011.

discounts are collected by United Healthcare. The card is canceled when the inmate is released.<sup>60</sup>

- **Florida:** The Florida Department of Corrections negotiated contracts with 32 community hospitals and specialists for discounts on inmate health care. For example, a provider at the University of Florida medical center charged 30 percent below its standard billing rates.<sup>61</sup> More recently, a FY 2009–10 statute forbids the state from paying more than 110 percent of the Medicare rate, and this is now used to negotiate rates.<sup>62</sup>

**Share medical services jointly with other organization**—In some situations, doctors providing care for a government organization outside of the corrections department might share the government’s medical resources and prices with the corrections department.

- **Bureau of Prisons/U.S. Marshals:** In New York State, Veterans Administration physicians work in medical specialty clinics at federal BOP facilities to treat prisoners under custody of both the federal BOP and U.S. Marshals Service.<sup>63</sup>

**Use medical students for screening**—Some health care services, such as routine intake screening, might be delivered less expensively by medical students under supervision of a licensed doctor, as often is done in teaching hospitals. The competency of the students is likely to be lower than licensed doctors, which may open the corrections department to lawsuits for inadequate care if, say, a student misses an infectious disease that spreads.

Use of medical students may be most useful where there is a limited pool of doctors willing to go into jails, and where there are teaching hospitals in the area. Medical students might be attracted by the possibility of getting to see medical conditions not often observed in the general population.

We did not find an example of the use of medical students in this limited study, but did not want to lose the idea entirely.

**Arrange for lockdown area in hospitals**—Where inmate hospital usage volume warrants it, having an area of a hospital with lockdown capability and a wide range of medical specialties reduces the number of correction officer hours needed to watch inmate patients—the two guards per inmate needed round the clock when inmates are mixed with the general hospital population.

**Federal:** Some BOP prisons eliminated 24-hour medical staff coverage where emergency care was readily available in the community. BOP reports that this generated cost savings averaging about \$1.6 million per year.<sup>64</sup> Impacts on inmate health were not reported.

## Use In-House Medical Services When Less Expensive

Where volume warrants it, and enough doctors and dentists are willing, medical and dental services sometimes can be provided less expensively by personnel on a corrections payroll than by private

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<sup>60</sup> Allemeier 2011.

<sup>61</sup> Lize et al. 2009.

<sup>62</sup> Reimers 2012.

<sup>63</sup> GAO 2000.

<sup>64</sup> GAO 2000.

providers. Providing services in-house saves correction officer time for transport. Costs of an in-house medical employee are likely to be less than one pays outside.

***In-house versus contracting out***—In-house staff may be used only for selected services.

- **Washington, D.C.:** The DOC realized about \$500,000 savings per year in avoided correctional-officer transport just by moving dialysis treatment in house. As a side benefit, this also reduced the potential for contraband to be introduced into the facility and improved public safety by lowering risk of outsider contact with inmates.
- **Florida:** Florida has gone back and forth on the use of in-house versus outside medical care. Circa 2008, the Florida Department of Corrections replaced contracted private medical service providers with state employees for inmate dental care and pharmaceutical services in its Region IV. They reported saving \$4.5 million annually.<sup>65</sup> In order to hire and retain in-house medical personnel the Florida DOC realized it had to raise the salaries of medical personnel. So, for example, they increased in-house dentist salaries in March 2008 by 50 percent, from \$68,153 to \$99,000. This was still less expensive than sending inmates to private dentists. They also were able to save money by retaining qualified nurses and reducing use of contract nurses. Contracting out for nursing positions also incurred the cost of the premium to employment agencies that provided the nurses.<sup>66, 67</sup>

In 2012, Florida DOC was required to reduce its budget by 7 percent, as part of across-the-board state budget cuts, and to reduce its number of employees. To cope with the restrictions it was planning at the time of this writing to again outsource much inmate medical care, with the estimate that it will save at least 7 percent.<sup>68</sup>

***Reduce nurse time spent dispensing medications***—One of the most time-consuming activities in any health care system is the distribution of medications. The current medication administration process in Washington, D.C., jail is as follows,<sup>69</sup> and is probably fairly typical:

1. Pharmacy orders medications in bulk and stores inside the pharmacy, one at each jail facility.
2. Pharmacy provides enough medication for seven days of treatment for each inmate. Medications are restocked approximately every five days, excluding narcotics, injections, and refrigerated medications, which are stored in the nurses' medication room.
3. Medications are stored in a med cart in a locked environment, the medication room, to which nurses have access.
4. Pharmacy places package of meds includes name, DCDC#, and name of meds with directions inside individually labeled inmate tray on med cart.
5. The nurse takes the entire cart to the inmate housing unit to administer the meds. The inmates wait in line behind the sally port door, which puts them out of sight and sound of the transaction between the nurse and inmate who is receiving the medication.

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<sup>65</sup> Lize et al. 2009.

<sup>66</sup> Lize et al. 2009.

<sup>67</sup> McGillen c.2009.

<sup>68</sup> Riemers 2012.

<sup>69</sup> Schroth 2009.

6. The nurse utilizes the medication administration record (MAR) which includes instructions for administering the meds for each inmate.
7. The nurse administers the meds, careful to ensure they're swallowed. The nurse must then initial the MAR to indicate the inmate received the med(s). If they refuse, or do not receive meds for any reason, the nurse must indicate the reason. (MAR is hard copy only, not electronic.)

There appear to be some ways to improve the efficiency of this sort of drug dispensing process:

- **San Bernardino, Calif.:** In collaboration with a private vendor, pharmacy, and IT departments, the San Bernardino Sheriff's Office developed a portable machine that eliminates the time-consuming task of medication preparation by storing, packaging, and labeling individual inmate medications. When nurses are ready to distribute medications to inmates, they go to the machine, log in specific information, and the machine produces the medications. They reduced nurse time and virtually eliminated medication errors. The new system can package 1,500 prescriptions in about 45 minutes.<sup>70</sup>
- **Florida Counties:** An informal survey found six out of seven populous counties in Florida prepared and distributed inmate medications at cell side. Nurses bring medications to the inmate housing areas and prepare them in the inmate's presence.<sup>71</sup> This process was said to reduce medication waste, but it took more nurse time, and also more security staff time to escort the nurse making the rounds. Medication distribution times can be optimized when medical and security staff schedules can be synchronized.<sup>72</sup> (No data was available on the time saved, but it was reported as significant, and that there was an improvement in service quality—fewer errors.)

***Use lower-paid positions for non-critical medical services***—Some procedures and tasks might be undertaken by lower-skilled and lower-paid positions. For instance, physician's assistants and nurse practitioners might be used for taking vitals and patient history as part of medical exams. This is common practice in hospitals and doctors' offices for the general population.

**Federal BOP:** Some BOP prisons have switched to using lower-salaried medical personnel instead of physicians for doing certain non-primary health care duties in house. This initiative reportedly generated annual savings of about \$5.5 million.<sup>73</sup> The savings came not only from the lower salaries but a reduction in trips to community medical providers.<sup>74</sup>

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<sup>70</sup> Rundle 2009, c.f. McGillen.

<sup>71</sup> McGillen c.2009.

<sup>72</sup> McGillen c.2009.

<sup>73</sup> GAO 2000.

<sup>74</sup> GAO 2000.

**Drop 24-hour coverage where not needed**—Some corrections systems that used to provide 24-hour medical coverage in house have dropped coverage at night when community emergency care is readily available nearby, and it is feasible to get to the inmates in a reasonable amount of time. Getting an inmate to emergency care in the middle of the night is not as straightforward as it is for the general population—the EMTs have to be protected while going into the facility and getting to the inmate. Then correction officers have to accompany the inmate to external care if the EMTs cannot solve the problem themselves.

There is no doubt that the time to get to medical care in an emergency increases when there are no in-house medical resources. The question is how often does the need arise, how acute are the medical problems, and whether EMTs can get to the patient quickly enough. Often corrections officers are given some basics in life-saving measures, which is another factor to consider. Another option is to train some corrections officers as EMTs, which is discussed below.

**Training corrections officers as EMTs**—A relatively untried approach is to train corrections officers as EMTs to do some medical tasks, as firefighters have long been trained. This not only may reduce the need for 24-hour medical coverage, but also may be valuable for several reasons itself.

Here again one has to be concerned about litigation when things go wrong. One expensive lawsuit can wipe out a lot of cost savings. On the other hand, the same situation faced the firefighters who first provided emergency health care, and that is now routine. When we discussed this concept with a senior DOC official he noted that having corrections officers trained as EMTs might improve relations between them and inmates. It also might be good for attracting new COs and providing career advancement for existing COs.

**Use longer nursing shifts**—Some jurisdictions have found that using 12-hour shifts for in-house medical personnel instead of the usual 8-hour shifts, especially for nursing staff, can reduce required staffing levels and personnel costs. Efficiency may also increase from having fewer shift changes (less hand-offs of duties and patient information). That may work to patients' benefits, or it may not if fatigue causes errors.

**Pinellas and Orange Counties, Fla.:** These counties utilize 12-hour schedules and claim efficiencies.<sup>75</sup>

## **Tighten Contracting and Auditing**

**Use per capita contracting if contracting out services**—Corrections systems may or may not save money by contracting out some or all inmate medical services to managed health care organizations. Even if contracting is used, the liability for failure to provide adequate health care to inmates still rests with the government.<sup>76</sup>

Private organizations have greater incentive and fewer bureaucratic barriers to employing cost-efficient measures. A review of prison health care systems in 2009 found that at least 34 states contracted out some or all aspects of their adult correctional health care services, typically with private prison health

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<sup>75</sup> McGillen c. 2009. Article reported that there were savings but did not discuss their magnitude.

<sup>76</sup> Faiver 1997.



care providers.<sup>77</sup> A small but growing number of states contract with public universities to provide corrections health services.

Private correctional health providers typically offer medical care contracts on a per inmate basis, which “allows the [government] to shift the financial risk to the provider [and] creates a strong incentive for the provider to carefully manage care and control costs through a variety of management techniques.”<sup>78</sup> A 2000 study by the National Institute of Corrections found that the cost of providing health services to inmates was about \$2.00 less per inmate per day (over \$700 less per year) in states that used capitated rate contracts.

Some people are concerned that the cost savings from contracting out may come with lower-quality health care. However, contract health care providers have incentive to avoid lowering standards of care because it might affect their marketing success. But the pressure to be profitable could lead to lower medical staffing levels, delayed replacement of outdated equipment or limiting of services.<sup>79</sup> An analysis in California reiterates this point, noting that cost savings from contracting should be weighed against other factors, such as the quality of care. For this reason, contracting for care is recommended on a pilot basis for an agency that has not been using it or if a new provider is chosen, to determine the positive and negative impacts on costs and quality of care.<sup>80</sup>

- **Michigan:** Michigan Department of Corrections went through a competitive bid process and switched private health care providers. In the process Michigan required some cost-saving features in the contract, including more focus on preventive care, electronic medical records, and telemedicine.<sup>81</sup> There was a 20-percent decline in emergency room use and a 40-percent decline in use of outpatient hospital services experienced under the new contract.
- **Kansas:** A private entity provides medical, mental health and dental care to inmates at an annual rate of about \$4,900 per inmate. To ensure that the provider is not denying inmates care, the contract required detailed accounting of how the provider’s budget is allocated and how much profit it is earning. The contract includes performance measures that must be met to avoid penalties. For example, if an inmate does not receive a physical exam within seven days of admission to a prison, the private provider is assessed a \$100 fine. One report found that the cost of inmate health care per inmate in Kansas increased less than in other states: a 9 percent average annual increase between 2000 and 2008, compared to 11 percent in 22 other states over the same time period.<sup>82</sup>
- **Florida:** In a 2009 report, the Florida Office of Program Policy Analysis and Government Accountability identified several factors that led to their failed outsourcing effort. The report found that FDOC failed to adequately monitor and oversee its contracts with private health care providers. The department reportedly failed to (1) clearly articulate the terms and conditions of contracts, including penalties for noncompliance; (2) establish performance measures; and (3) properly train contract monitoring staff. In addition, they found that the state had failed to obtain inmate health care services at the lowest possible cost because

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<sup>77</sup> Hill 2010; Taylor 2012.

<sup>78</sup> Taylor 2012.

<sup>79</sup> McGillen c. 2009.

<sup>80</sup> Taylor 2012.

<sup>81</sup> WILX 2009.

<sup>82</sup> Taylor 2012

contracts were often awarded without a competitive bidding process.<sup>83</sup> After providing mostly in-house care and some selected external care since 2009, Florida in 2012 was planning to again outsource care, in part because of cutbacks in the number of state employees allowed, according to the head of their inmate care in conversations with our research staff.<sup>84</sup>

- **California:** A review of California's corrections health costs estimated that moving to a capitated contract would result in savings of over \$100 million annually.<sup>85</sup>

Comparing the quality and cost of inmate medical care in facilities before and after contracting would provide better evidence on the impact of contracting for primary inmate medical care services; but this is not possible if the services are always contracted out. The experience cited above in Florida may provide some data as they had outsourced, taken it back in house, and are planning to outsource again.

Contracts for health care should use a competitive bidding process that incentivizes providers to deliver care in the most cost-effective way possible.

Contracts should specify performance (including service quality) measures that should be met as well as specific penalties that will be assessed if they are not. Implicit to this process is having adequate oversight staff and a relevant performance measurement system.

**Check bills for errors**—Errors sometimes occur in medical billing. It is important to review bills against internal documentation to check the type and amount of medications and services requested. One jail system detected an error on their bill in which they were charged for the number of milligrams of medication used rather than the number of pills!<sup>86</sup> Their original charge was \$795.21 (in number of milligrams), whereas the correct charge was \$30.45 (in number of pills). The charges were buried within several pages of medication charges. Similar errors have been reported in other jurisdictions. It is important to have a meticulous process for reviewing bills. Eventually, this type of audit might be automated.

## SYNERGISTIC APPROACHES TO HEALTH CARE COST REDUCTION

When addressing cost reduction, it may be more effective to undertake a set of integrated changes at one time rather than many separate actions, to achieve synergism and to raise awareness of the focus on cost efficiency.

**State of Florida**—In 2008 Florida Department of Corrections adopted a combination of the practices to reduce prison health care costs. They reduced daily average costs from \$13.03 in the previous year to \$11.<sup>87</sup> We discussed above their new practices individually. They included increasing use of dental and pharmaceutical services; institution of a hospitalization utilization management system; increased number of secure beds in local hospitals; joining the Minnesota multi-state pharmaceutical purchasing cooperative; using in-house rather than contract personnel to dispense drugs; and centralized procurement and use of statewide contracts to eliminate regional differences and increase purchasing power. These efforts resulted in a \$12.5

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<sup>83</sup> Lize et al. 2009.

<sup>84</sup> Reimers 2012.

<sup>85</sup> Taylor 2012.

<sup>86</sup> Keller 2003.

<sup>87</sup> Lize et al. 2009.

million savings from the first half of FY 2008/2009 compared to the same period the previous year. Previously the Florida Department of Corrections had reported a 37 percent increase of health care costs between 2003 and 2008.<sup>88</sup>

**Federal Bureau of Prisons**—The BOP implemented a package of 20 initiatives to reduce costs of inmate health care across more than 100 federal prisons.<sup>89</sup> Some noteworthy specifics were discussed in the examples above.

## METHODOLOGY AND CAVEATS

**Sources**—We started with a series of Internet searches for material on inmate health care costs in jurisdictions across the nation. We followed up some of the more promising approaches by contacting the source organization, which usually was a local, state, or federal corrections department. We worked especially closely with the Washington, D.C., Department of Corrections, which shared much of their inmate health cost data and current approaches to cost savings.

There were not adequate project resources to go back to the prime data nor to follow up with contacts on all of the potentially good practices; rather than not include them, we indicated the data limitations and what further data would be useful to validate them.

Some of the examples here from state and local governments are 10–20 years old, and their originating organization may not still be using the practices discussed. We researched the continuation of some of the practices, but included older practices if they had documented cost savings and seemed like good ideas, even if no longer used. Some practices are dropped for political reasons (e.g., limitation on the number of government employees or the use of outside contracting), and some for other reasons that did not detract from their potential use elsewhere.

**Measuring inmate health** — A major flaw in the published research on inmate health is lack of information on how the cost-saving approaches being used affect inmate health. In some cases, such as reducing costs of medication by use of generics, sufficient evidence exists that there is little or no impact on health by analogy with the same practice used for the general population. In other cases, the sources *imply* that the cost-reduction approach did not negatively affect inmate health, but have not provided evidence. Most of the sources—leaders in inmate health in various prison systems—agreed on the difficulties of evaluating impacts on inmate health for lack of good metrics for which data are practical to collect.

Measuring health of inmates poses many difficulties. Most state and local health agencies have standards for clinical outcomes for chronic illnesses and others, but not measures of the state of the prisoner health overall, over time. Perhaps the most desirable measure—change in health after admittance—is rarely measured because it requires the same comprehensive exam for all or at least a statistically significant sample of inmates at regular intervals, and that does not routinely occur. Some systems do a systematic health evaluation on intake, and have a very good statistical picture of the health of inmates at that time, but not after that point.

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<sup>88</sup> Lize et al. 2009.

<sup>89</sup> U.S. Dept. of Justice 2008.

Some of the common indicators of inmate health are as follows. While better than nothing, especially if viewed as trends or across groups of institutions using the same definitions, they are not conclusive for evaluations, especially for assessing impacts of cost-reduction approaches.

--*number of inmate sick calls*. The obvious problem with this measure is that one wants to reduce the number of unnecessary sick calls, not legitimate sick calls. The total number of sick calls may reflect inmate complaint behavior as much as inmate health.

--*number of inmate complaints about health care*. Inmates in some jails, such as in D.C., can file a complaint as often as daily on any subject. They can complain about their health care if they feel they are denied access or are not getting adequate quality care. This is a subjective measure of the quality of health care, but can be useful, especially when the reasons for the complaints are analyzed and some determination made of their validity.

--*number of contacts with health provider*. In some jails or prisons, any time an inmate sees a nurse or doctor, or gets medicine, a contact report is made. (Again, Washington, D.C., jail is one example.) More health provider contacts may mean worse health, or it may simply mean the inmates have better access to care, or even an increase in frivolous contacts or over-documentation of trivial contacts. A more substantive version of this measure that has not been used to our knowledge, and that might be considered, is the following:

--*number of contacts with health provider that resulted in medical action* (such as provision of medicine, medical tests, or needed health advice). This can be gleaned from a sample of the contact reports. If health worsened, one might expect more medical actions taken. This measure has not to our knowledge been used but has promise. However, it too presents some concerns, such as that some medical actions may be of marginal health value, and some inmates may not report or be aware of their health problems.

There are currently no national data sets for measuring outcomes (inmate health) in correctional health care.<sup>90</sup> Comparing data across jurisdictions may also be challenging. Jail-related health care analysis is a subject with its own complex set of problems including variations in heterogeneity of populations from community to community, exceedingly low median lengths of stay relative to prison populations, and a complex array of medical conditions and illnesses that present in the population.

There is promise for improving comparative data. Some new corrections data systems provide benchmarks for comparing the quality of health services against those of other jurisdictions:

- **CHORDS**: The NCCHC is developing the Correctional Health Outcome and Resource Data Set (CHORDS), a uniform quality monitoring system for benchmarking and outcomes analysis. Because CHORDS is neither resource-intensive nor dependent on technology, it provides a short-term solution for jails interested in evaluating the quality and efficiency of their health care system without investing resources in health information technology (HIT) or electronic health record (HER) systems. These systems are designed to improve health care quality, increase adherence to guidelines by health professionals, improve the delivery of care, reduce medication errors, and improve efficiency in medication administration. HIT can help jails with disease surveillance, or the ability to monitor the incidence, prevalence, and outcomes of diseases in an inmate population. CHORDS do not require the exchange of protected health information or individually identifiable health information. Measures

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<sup>90</sup> Bisset and Harrison 2012.

consider effectiveness of care, access, cost, and health plan stability. Some measures have been adapted for populations with very short stays.<sup>91</sup>

- **California:** The state developed a dashboard (computer display) to track inmate health outcomes, services, and associated expenditures on a monthly basis. Many of the metrics (listed below) and certainly the method of presentation are applicable to a jail setting. The dashboards are available to the public on the California Correctional Health Care Services website.<sup>92</sup> The health care measures address the following:
  - Medical Program Inspections
  - Dental Program Audit
  - Mental Health Timeframe Compliance
  - Prevention And Disease Management
  - Access And Continuity
  - Medication Management
  - Specialty And Hospital Services
  - Staffing (Full Time Equivalent)
  - Major Costs Per Inmate Per Month
    - Labor
    - Non Labor
  - Workload Per Day
  - Other Trends
  - Institution And Population Characteristics

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<sup>91</sup> For more information about the development of CHORDS and its current pilot testing of diabetes-related metrics in 56 prison and 10 jail systems, see <http://ncchc.org/about/chords.html>.

<sup>92</sup> The dashboard can be found at <http://www.cphcs.ca.gov/>.

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## APPENDIX

### California's Health Performance Metrics Dashboard

#### MEDICAL PROGRAM INSPECTIONS

- *Overall Score:* The Office of the Inspector General (OIG) uses a series of “yes” or “no” questions to determine adherence in 20 components of medical delivery (e.g., Chronic Care). Each inspection question is weighted and scored by calculating the percentage of “yes” answers for each question from all items sampled. That percentage is then multiplied by the question’s weight to arrive at a weighted score. The total score is calculated by summing the number of weighted subject points earned and dividing that value by the overall number of weighted points possible. Reported percentages reflect the most recent OIG inspection results. See OIG website for details: <http://www.oig.ca.gov/pages/reports/medical-inspections.php>.

#### DENTAL PROGRAM AUDIT

- *Clinical Process:* Percentage adherence to standards in the Clinical Process category of the Perez Court Expert Dental Audit Tool.
- *Quality of Care:* Percentage adherence to standards in the Quality of Care category of the Perez Court Expert Dental Audit Tool.
- *Patient Safety:* Percentage adherence to standards in the Patient Safety category of the Perez Court Expert Dental Audit Tool.

#### MENTAL HEALTH TIMEFRAME COMPLIANCE

- *Contact Intervals:* Percentage adherence to the Mental Health Services Delivery System’s (MHSDS) inmate-patient contact timeframes. Compliance is measured weekly through MHSDS and include routine Interdisciplinary Treatment Team (IDTT), psychiatrist, and primary clinician (PC) contacts. Aggregated percentage adherence represents adherence to contact type timeframes for each care program and housing placement [limited to Correctional Clinical Case Management System (CCCMS), Enhanced Outpatient Program (EOP), housed in Mainline (ML) or the Reception Center (RC)].
- *Mental Health Referrals:* Percentage adherence to timeframe requirements for entry into MHSDS, as defined by the MHSDS Program Guide.
- *Level of Care Change Requests:* Percentage adherence to timeframe requirements related to requests for Level of Care Changes for the following MHSDS areas: Correctional Clinical Case Management System (CCCMS), Enhanced Outpatient Program (EOP), and Mental Health Crisis Beds (MHCB) as defined by the MHSDS Program Guide.

#### PREVENTION AND DISEASE MANAGEMENT

- *Diabetes Care:* Average of the following measures for inmate-patients 18 through 75 years of age with diabetes who were continuously incarcerated during the preceding 12 months: Most recent hemoglobin A1c (HbA1c) <8% (under control); Most recent low-density lipoprotein-cholesterol (LDL-C) <100 mg/dL (under control); and Most recent blood pressure <140/90 (under control)
- *Asthma Care:* Percentage of inmate-patients 18 through 50 years of age who had persistent asthma who were prescribed an inhaled corticosteroid (ICS) within the preceding 12 months among all inmate-patients prescribed four or more ICS or short-acting beta agonist (SABA) medications during the same 12-month period.
- *Therapeutic Anticoagulation:* Percentage of inmate-patients who were prescribed warfarin/Coumadin for anticoagulation therapy and achieved a therapeutic international normalizing ratio (INR) between 2 and 3.5 in the preceding 30 days. To be eligible, inmate-patients must have been receiving anticoagulation therapy for at least the preceding four months.

- *Potentially Avoidable Hospitalizations per 1,000 Inmates per Year:* Rate of potentially avoidable hospitalizations per 1,000 inmates per year based on the Agency for Healthcare Research and Quality (AHRQ) criteria for the following conditions: cellulitis, pneumonia, diabetes and related complications, asthma, chronic obstructive pulmonary disease (COPD), altered level of consciousness or seizure disorders, urinary tract infections, dehydration, angina, and congestive heart failure. Figures also include readmissions within 30 days of discharge, end stage liver disease complications, self-injury, and medication-related events. Reported rates reflect an annualized rate of the most recent three-month period.
- *Colon Cancer Screening:* Percentage of inmate-patients 50 through 75 years of age\*, continuously incarcerated during the preceding 12 months who were offered colon cancer screening through one of the following methods: an appropriate fecal immunochemical test (FIT) or fecal occult blood (guaiaac) test (FOBT) within the preceding 12 months; a sigmoidoscopy within the last 5 years; and a colonoscopy within the last 10 years.
- *Breast Cancer Screening:* Percentage of female inmate-patients 50 through 74 years of age\*, continuously incarcerated during the preceding 12 months who received a mammogram within the preceding two years or were offered a mammogram during the preceding 12 months. Mammography data are available June 2009 and later. Please note that an inmate-patient was counted towards compliance if screening was offered during the preceding 12 months but the inmate-patient declined.
- *Flu vaccination:* Percentage of inmate-patients who were offered influenza vaccination. Please note that an inmate-patient was counted towards compliance if screening was offered but the inmate-patient declined. This measure is assessed annually.

## **ACCESS AND CONTINUITY**

### **ACCESS**

- *RN Episodic Care:* Percentage of inmate-patients who submitted a medical Health Care Service Request form indicating symptoms and who were seen face-to-face by a nurse by the next business day.
- *PCP Episodic Care:* Percentage of inmate-patients who received a routine appointment with a primary care provider within 14 calendar days of a nurse referral.
- *PCP Chronic Care:* Percentage of inmate-patients enrolled in the chronic care program who received a follow-up evaluation by a primary care provider as ordered at the patient's last chronic care visit, but not to exceed 180 calendar days after that visit.
- *Specialty Consultation:* Average percentage of inmate-patients evaluated by a specialist within 14 calendar days of approval of a high priority referral and inmate-patients evaluated by a specialist within 90 calendar days of approval of a routine referral.
- *PCP Specialty Follow-up:* Average percentage of inmate-patients who were seen by a primary care provider within 3 business days after returning from a high priority specialty appointment and inmate-patients who were seen by a primary care provider within 14 calendar days after returning from a routine specialty appointment .
- *PCP Hospital Follow-up:* Percentage of inmate-patients returning from a higher level of community care (a community hospital or emergency department) who received a follow-up evaluation by their primary care provider within 5 calendar days after return to the institution.

### **CONTINUITY**

- *Provider:* Percentage of chronic care inmate-patients residing at their current institution during the preceding six months who had fewer than three primary care providers prescribing essential medications over that same six-month period.
- *Mental Health Clinician:* Percentage of mental health clinician encounters occurring with a single

mental health clinician for inmate-patients residing at their current institution during the preceding six months who have been enrolled in the Enhanced Outpatient Program for at least six months.

- *Psychiatrist*: Percentage of psychiatrist encounters occurring with a single psychiatrist for inmate-patients residing at their current institution during the preceding six months who have been enrolled in the Enhanced Outpatient Program for at least six months.

#### **MEDICATION MANAGEMENT**

- *Access to Medications*: Average percentage of chronic care inmate-patients who received all prescribed chronic care medications during the preceding 90 days; inmate-patients returning from a higher level of care (community hospital or emergency department) who received all prescribed medications by the next business day; and newly arriving or intra-system transfer inmate-patients who received all medications previously prescribed within policy timeframes (1 calendar day for newly arriving and next business day for Intra-system transfer).
- *Prescriptions per Inmate*: Average number of prescriptions dispensed per inmate per month.
- *Medical Provider Non-Formulary Prescribing*: Percentage of all non-mental health prescriptions filled for medications not on the formulary.
- *Psychiatrist Non-Formulary Prescribing*: Percentage of all psychiatrist-generated prescriptions filled for medications not on the formulary.
- *KOP medications from Central Fill Pharmacy*: Percentage of keep on person (KOP) medications that were dispensed from the Central Fill Pharmacy rather than from the institution's pharmacy.

#### **SPECIALTY AND HOSPITAL SERVICES**

- *Specialty Care Referrals*: Average number of referrals for specialist consultations submitted and approved per 1,000 inmates per month.
- *Specialty Appointments via Telemedicine*: Percentage of non-psychiatric specialist visits appropriate for telemedicine (i.e., non-procedural evaluation, management, or consultation) delivered via telemedicine services.
- *Hospital Admissions*: Average number of community hospital admissions per 1,000 inmates per month.
- *Emergency Department Visits*: Average number of community emergency department visits per 1,000 inmates per month.
- *Administrative Hospital Bed Days*: Average number of potentially avoidable days spent occupying a community hospital bed (e.g., due to unavailability of Correctional Treatment Center beds) per 1,000 inmates per year.

#### **STAFFING (FULL TIME EQUIVALENT)**

- *Full Time Equivalent (FTE)*: Measures one full calendar year of state employee paid employment, or the equivalent of 2,088 hours (the number of average available work hours in a year). A staff month is equivalent to 174 hours (the average available work hours in a month) (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Actual FTE*: Number of current Full Time Equivalent (FTE) staff being utilized through Permanent Employee Filled Positions, Overtime and Registry (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Authorized FTE*: Number of ongoing positions approved in the budget of the preceding year (excluding positions abolished due to continued, extended vacancy) (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs). Details about authorized positions by classification can be found in the Salaries and Wages Supplement for state organizations.
- *Percent of Authorized*: Percentage of number of actual FTE positions to number of authorized FTE

positions (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).

- *Medical Staff*: Number of actual and authorized FTE positions and percent of authorized FTE positions for medical staff, including non-psychiatric MD, DO, NP and PA hours (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Nursing Staff*: Number of actual and authorized FTE positions and percent of authorized FTE positions for nursing staff, including RN, LVN, CNA and psychiatry technician hours (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Pharmacy Staff*: Number of actual and authorized FTE positions and percent of authorized FTE positions for pharmacy staff, including pharmacist and pharmacy technician hours (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Dental Clinical Staff*: Number of actual and authorized FTE positions and percent of authorized FTE positions for dental clinical staff, including dentist and hygienist hours (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Mental Health Clinician*: Number of actual and authorized FTE positions and percent of authorized FTE positions for mental health clinician staff, including psychiatrist, psychologist, and licensed clinical social worker hours (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Clinical Support*: Number of actual and authorized FTE positions and percent of authorized FTE positions for clinical support staff, including physical therapist, laboratory, radiology, and other licensed clinical staff hours not accounted for in other clinical categories (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Administrative Support*: Number of actual and authorized FTE positions and percent of authorized for administrative support staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff FTEs).
- *Total Actual FTE*: Total number of actual FTE use for the following staff classification categories: Medical, Nursing, Pharmacy, Dental Clinical, Mental Health Clinician, Clinical Support, Administrative Support.
- *Permanent Employees FTE*: Total number of permanent employee FTE use for the following staff classification categories: Medical, Nursing, Pharmacy, Dental Clinical, Mental Health Clinician, Clinical Support, Administrative Support.
- *Overtime FTE*: Total number of overtime FTE use for the following staff classification categories: Medical, Nursing, Pharmacy, Dental Clinical, Mental Health Clinician, Clinical Support, Administrative Support.
- *Registry FTE*: Total number of registry/contract employee FTE use for the following staff classification categories: Medical, Nursing, Pharmacy, Dental Clinical, Mental Health Clinician, Clinical Support, Administrative Support.

## **MAJOR COSTS PER INMATE PER MONTH**

### **LABOR**

- *Medical Staff*: The per inmate per month cost of salaries/wages, retirement, benefits, temporary help, registry, and overtime for medical staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff costs).
- *Nursing Staff*: The per inmate per month cost of salaries/wages, retirement, benefits, temporary help, registry, and overtime for nursing staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff costs).
- *Pharmacy Staff*: The per inmate per month cost of salaries/wages, retirement, benefits, temporary help, registry, and overtime for pharmacy staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff costs).

- *Dental Clinical Staff*: The per inmate per month cost of salaries/wages, retirement, benefits, temporary help, registry, and overtime for dental clinical staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff costs).
- *Mental Health Clinical Staff*: The per inmate per month cost of salaries/wages, retirement, benefits, temporary help, registry, and overtime for mental health clinical staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff costs).
- *Clinical Support*: The per inmate per month cost of salaries/wages, retirement, benefits, temporary help, registry, and overtime for clinical support staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff costs).
- *Administrative Support*: The per inmate per month cost of salaries/wages, retirement, benefits, temporary help, registry, and overtime for administrative support staff (statewide figures on monthly composite and institution scorecards exclude headquarters staff costs).

## **NON LABOR**

- *Hospital*: Dollar cost of inpatient treatment services per inmate per month.
- *Emergency Department*: Dollar cost of emergency department visits per inmate per month.
- *Specialty*: Dollar cost of all non-psychiatric specialty services per inmate per month.
- *Medications*: Dollar cost of all prescriptions per inmate per month.
- *Diagnostics*: Dollar cost of all diagnostic services per inmate per month.

## **WORKLOAD PER DAY**

- *Patient Encounters per PCP*: Average number of inmate-patients seen per Primary Care Provider (PCP) per normalized eight hour day.
- *Patient Encounters per Primary Mental Health Clinician*: Average number of inmate-patients seen per primary mental health clinician (psychologist or social worker) per normalized eight hour day.
- *Patient Encounters per Psychiatrist*: Average number of inmate-patients seen per Psychiatrist per normalized eight hour day.
- *Prescriptions per Pharmacist*: Average number of prescriptions filled per Pharmacist per normalized eight hour day.

## **OTHER TRENDS**

- *Appropriately Housed Clinically Complex Patients*: Percentage of Clinically Complex inmate-patients appropriately housed at institutions with Intermediate health missions. The monthly composite and institution scorecards data shows the total number of Clinically Complex inmate-patients.
- *Mental Health High Utilizers*: Number of inmate-patients with two or more mental health-related placements/admissions to Suicide Watch, Outpatient Housing Unit, Mental Health Crisis Bed, or Intermediate Care Facility per 1,000 inmates per month.
- *Appeals Received*: Average number of appeals received (formal and informal) per 1,000 inmates per month.
- *Health Care Appointments Missed Due to Custody*: Percentage of all scheduled health care appointments missed due to custody factors per month.
- *Prison Population Capacity*: Percentage of actual inmate-patient population over the designated population capacity at California Department of Corrections and Rehabilitation prisons.
- *Cell Bed Changes*: Percentage of inmates-patient continuously incarcerated during the preceding six months who moved cell beds 1 or more times during that same period.
- *Average Document Scan Time (In Days)*: The average number of days between a document's encounter date and its scan date.

## **INSTITUTION AND POPULATION CHARACTERISTICS**

- *High Risk Priority 1 and 2*: Patients who trigger at least one of the High Risk selection criteria. Please note that this category is further sub-divided into Priority 1 and 2 groups. High Risk Priority 1 includes patients who trigger 2 or more of the High Risk selection criteria, while High Risk Priority 2 includes patients triggering 1 criterion only.
  - High Risk Selection Criteria:
    - Sensitive Medical condition
    - High hospital, ED, Specialty Care, and Pharmacy costs
    - Multiple hospitalizations\*
    - Multiple Emergency Department visits\*
    - High Risk Specialty consultations
    - Significant abnormal labs
    - Age
    - Specific High-Risk diagnosis/procedures

A patient with a point for 2 or more inpatient hospital admissions cannot receive a second point for 3 or more Ed visits (and vice versa)
- *Medium Risk*: Patients who do not fall into the High Risk category that have at least 1 chronic condition, excluding patients whose only chronic condition is well-controlled Asthma or Diabetes.
- *Low Risk*: Patients with no chronic conditions other than well-controlled Asthma or Diabetes who do not meet any of the criteria for High or Medium risk.

