



# Pharmaceuticals in State Prisons

How departments of corrections purchase, use, and monitor prescription drugs

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The Pew Charitable Trusts is driven by the power of knowledge to solve today's most challenging problems. Pew applies a rigorous, analytical approach to improve public policy, inform the public, and invigorate civic life.

## Overview

Adults who are incarcerated have a higher-than-average prevalence of infectious diseases, hypertension, asthma, arthritis, mental illness, and substance use disorders, often in combination. Since departments of corrections (DOCs) are legally obligated to treat individuals in their custody, they—like all health care purchasers in this country—face the challenge of pharmaceutical prices that seem to rise constantly, and sometimes rapidly. Yet unlike the country's two largest publicly supported health insurers—Medicaid (for eligible low-income people) and Medicare (for eligible individuals 65 years and older and people with disabilities)—relatively little is known about how each DOC purchases pharmaceuticals, what they spend for them, and what policies they adopt to govern their use.

A number of complex and interrelated elements affect the delivery and cost of pharmaceuticals in a correctional setting, including the organization of the prison system's overall health care delivery system, its drug-purchasing strategy, its selection of preferred drugs (known as the formulary), and copayment requirements. The decisions a state makes about these questions can help improve the quality and cost-effectiveness of a state's correctional health program and contribute to a well-coordinated and integrated state health care system.

In an effort to better understand the role of pharmaceuticals in the state correctional setting and budget, and in a state's overall health care strategy, The Pew Charitable Trusts, in partnership with the Vera Institute of Justice, administered a survey in 2016 to each state's department of corrections, receiving responses from every state except New Hampshire. Respondents were asked how much they spent on prescription drugs, what their highest-cost drugs were, whether they charged incarcerated adults copayments, and whether they had access to the federal Health Resources and Services Administration's (HRSA) 340B discounted drug pricing program through an agreement with an eligible provider.

The research found:

- 21 DOCs named drug costs as one of their agency's primary health cost drivers. Other states cited cost drivers that had significant drug-spending implications: an aging prison population and an increase in disease severity among individuals of all ages entering prison.
- Few DOCs could report their total spending on pharmaceuticals, either because they contract with private vendors to provide their prison health care and the cost of pharmaceuticals is folded into the overall per inmate per month vendor payment, or because their accounting systems do not separately track pharmaceutical spending.
- Among 10 of the 11 states that could report total spending on pharmaceuticals, drug spending accounted for between 15 and 32 percent of their total DOC health budgets in fiscal year 2015. Texas, the 11th state, spent 7 percent. For context, drugs accounted for 10 percent of national health expenditures in calendar year 2015.
- 16 DOCs work with eligible hospitals and other health care providers to obtain some of their high-cost drugs through the federal 340B drug-purchasing program. Carving out even a few such drugs from a DOC's overall purchase can reap financial benefits.
- DOCs buy many of the same drugs as do Medicaid agencies, with the bills for both groups ultimately paid by taxpayers. Yet DOCs are not eligible for the federal Medicaid Drug Rebate Program, which requires drug manufacturers to enter into a rebate agreement in return for Medicaid coverage of their products.

- A comparison of the highest-cost drugs bought by large employers for their covered employees and families, by Medicaid agencies for their enrollees, and by DOCs for incarcerated adults shows significant overlap in the conditions treated by all three. The latter two, especially, share a higher-than-average prevalence of diabetes, asthma, hepatitis C and HIV, mental illness, and substance use disorders.

## **Why study pharmaceuticals within prison health services?**

After seven years of relatively modest growth, prescription drug costs re-emerged as a pressure point within the U.S. health care system, with spending rising by 12 and 9 percent in 2014 and 2015, respectively.<sup>1</sup> The Centers for Medicare & Medicaid Services projects annual spending growth of 6 percent a year in from 2015-18, a rate faster than overall health spending.<sup>2</sup> Increased drug spending, driven in part by the 2013 and 2014 approvals of several high-cost, highly effective drugs for the treatment of hepatitis C, has elevated issues of prescription drug cost and value among policymakers, health care providers and payers, and the public.<sup>3</sup>

Pharmaceuticals have a large impact on both the quality of care that states deliver to incarcerated adults and the cost of such care to taxpayers. Since 1976, when the Supreme Court ruled in *Estelle v. Gamble* that prisoners have a constitutional right to “reasonably adequate” medical care, states have been required to screen for, diagnose, and treat the illnesses of those in their custody, although the dimensions of that obligation are continually being litigated and further defined.<sup>4</sup> In 2015, 49 states spent \$8.1 billion to provide health care to more than 1 million incarcerated men and women.<sup>5</sup>

To date, little has been known about prison pharmaceutical policy and spending across the states. This gap has existed despite an above-average prevalence of physical and mental illness among incarcerated adults, as well as a rising proportion of older adults, who introduce the challenges of multiple chronic medical conditions, limited ambulation, hearing loss, dementia, and, ultimately, palliative needs to the prison setting.<sup>6</sup> Comprehensive, detailed, and timely prescription drug data are necessary for department officials, legislators, and other stakeholders to evaluate pharmaceutical policies and purchasing practices. These data can also be a valuable tool contributing to a comprehensive quality monitoring program and, for states that procure their prison care from private vendors, crucial for contract negotiations.

State respondents to the Pew/Vera survey repeatedly emphasized the importance of pharmaceutical utilization and spending to each DOC’s health program. When asked to identify their primary health care cost drivers, 21 state DOCs named drug-related concerns, including: “[Hepatitis C] costs have risen 487% over the last five fiscal years,” “lack of price control on drugs,” and “the cost impact of the latest [hepatitis C] medications ... as well as the increasing unit costs for generic medications.” Two other cost drivers frequently named by DOCs have significant pharmaceutical implications: a rise in the proportion of incarcerated adults age 55 and older with their concomitant health care needs as well as an observed increase in disease severity among people of all ages entering prisons.

Those who are incarcerated have a higher-than-average prevalence of infectious diseases, hypertension, asthma, arthritis, and cervical cancer as well as substance use disorders and psychiatric illness, often in combination.<sup>7</sup> And while these may produce the same symptoms among those in prison as they do among people in the outside community, treatment protocols cannot always be identical. For example, such first-line defenses as diet modification or physical exercise for hypertension may be more challenging for an individual to maintain in the correctional setting. Therefore, pharmaceuticals, which already play an important role in the U.S. health care system, may take on an even greater therapeutic importance in prisons.

Pharmaceuticals accounted for 10 percent of national health expenditures in 2015, but their impact on the country's major payers varied in 2015 from 6 percent in Medicaid (the public health insurance program for eligible low-income individuals) to 15 percent in Medicare (the public health insurance program for eligible seniors and individuals with disabilities).<sup>8</sup>

Eleven DOCs reported their total prescription drug spending to Pew and Vera for fiscal 2015. Nine of those states (Connecticut, Maine, New Jersey, Ohio, Rhode Island, South Carolina, South Dakota, Washington, and Wisconsin) spent between 15 and 23 percent of their correctional health budgets on pharmaceuticals, while New York reported spending 32 percent. New York pointed to new hepatitis C drug treatments as a key reason for the large footprint, noting that they were "the largest driver of increased healthcare costs for [the department of corrections]."<sup>9</sup> Texas, on the other hand, spent only 7 percent of its health care budget on pharmaceuticals, pointing to its extensive use of the HRSA's 340B purchasing program as the explanation for its comparatively low figure.

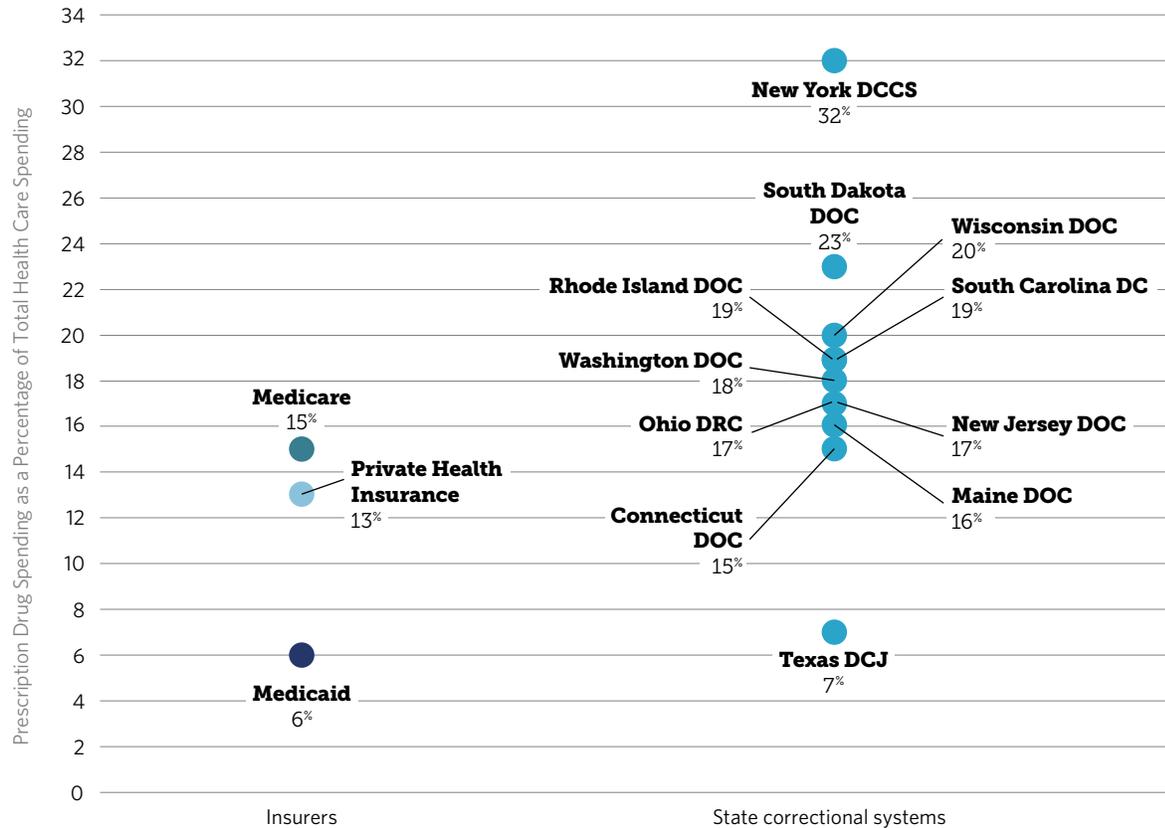
Nine of these states also reported total prescription drug spending for fiscal 2010. Eight saw the budget impact of pharmaceuticals increase over the five years, while Texas spent the same percentage (7 percent) in both fiscal 2010 and 2015.

Looking at state-by-state pharmaceutical spending without contextual information that determines such expenses makes it impossible to ascertain the reasons behind the specific spending level. States that spend more on pharmaceuticals as a proportion of their total correctional health budget could be paying higher prices for their drugs or less for all other categories of care. They could be providing more—or more expensive—drugs, having found that an aggressive use of drugs resulted in a decrease in the need for off-site acute hospital admissions, a savings that would be likely to offset high pharmaceutical spending. They could also be incarcerating sicker men and women, doing more comprehensive screenings that identified diseases, or intervening earlier in progressive diseases such as hepatitis C. In fact, a 2016 article in *Health Affairs* reported on a survey that asked each DOC for the number of people it held with hepatitis C and the number being treated for that disease. The percentage of treated diagnosed individuals ranged from zero (Oklahoma, Pennsylvania, South Carolina, and Wyoming) to 5.9 percent (New York).<sup>10</sup> That range not only illustrates a variation in state treatment policy but also the likelihood that current pharmaceutical spending might understate the need—even in New York, where prescription drugs account for about a third of total prison health care spending. (See Figure 1.)

Figure 1

## Select State Departments of Corrections Spent More of Their Health Budgets on Drugs Than Did Large Insurers

Prescription drug spending as a percentage of total health care spending, 2015



Notes: Pharmaceutical spending data and total health care spending data for Medicaid, Medicare, and private health insurance were taken from the National Health Expenditure Accounts. These data are reported for calendar year 2015. Pharmaceutical spending data and total health care spending data for the 11 corrections departments were taken from the Pew/Vera survey. These data are reported by each state for its fiscal year 2015, which ends June 30 in Connecticut, Maine, New Jersey, Ohio, Rhode Island, South Carolina, South Dakota, Washington, and Wisconsin; March 31 in New York; and Aug. 31 in Texas.

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## Use of Prescription Drugs May Decrease Total Medical Costs

A 2015 study looked at claims from 1.5 million Medicaid fee-for-service enrollees to study the effect of prescription drug use on medical costs. Study results showed that for eight\* chronic noncommunicable diseases, which are also very common among incarcerated adults, a 1 percent increase in drug use (as measured by the number of prescriptions filled) was associated with decreases in total inpatient costs of 0.236 percent for nonblind, nondisabled enrollees and 0.308 percent for aged, blind, and disabled enrollees.<sup>11</sup> The savings were especially significant for enrollees with schizophrenia or bipolar disease, and gastroesophageal reflux disease.

While these results should not be expected to be replicated exactly among people in prison, they do suggest that appropriate use of prescription drugs can avert even more expensive unplanned hospital admissions. Prison hospital admissions, especially unplanned ones, require multiple correctional officers to spend hours or even days off-site, transporting and guarding the hospitalized person, thereby driving up the actual cost of a hospital stay even further.

These data suggest that prescription drug spending, while high and rising, needs to be evaluated in the context of a total prison health care program.

\* Hypertension, dyslipidemia, diabetes, asthma or chronic obstructive pulmonary disease, depression, schizophrenia or bipolar disease, seizure disorder, and gastroesophageal reflux disease.

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## What decisions must be made?

### Health care delivery system organizational structure

Pew/Vera researchers found that the health care delivery system used by a state for correctional health care influences how its drugs are purchased and how the state monitors their use.

States use one of four models to provide health services to individuals in their custody:

- Direct-provision model, where all or most care is provided by DOC clinicians (17 states).
- Contracted-provision model, where all or most care is delivered by clinicians employed by a private vendor (20 states).
- State university model, where all or most care is delivered by the state's public medical school teaching staff (four states).
- Hybrid model, where care is delivered by some combination of the above models (eight states).

While no single model of care delivery is intrinsically better than the others, each requires the state to build in certain safeguards to monitor that the right care is being delivered at the right time. A state might contract with an outside expert to audit aspects of its care. For example, the Rhode Island DOC contracts with the University of Rhode Island's School of Pharmacy to do pharmacy utilization review. Ohio's DOC contracts with Permedion to do third-party billing analyses while Virginia's DOC has Anthem Blue Cross and Blue Shield adjudicate and

analyze the claims for its off-site medical care. Indiana, a contracted care model, is an example of a state that included in its request for proposal and subsequent vendor contract a set of required minimum care outcomes or service thresholds that the vendor must meet as well as a report submission schedule.

Even states that provide care directly or contract with one vendor to deliver most care sometimes carve out or contract with a specialty vendor to deliver certain other types of services, such as mental health, dental care, or even pharmaceuticals. Throughout this report, states are classified into a health care delivery system based on the method through which the majority of medical care is delivered. (See Table 1.)

Table 1

## Delivery System Organizational Structures, FY 2015

Delivery system	States	Number of states
<b>Direct-provision</b>	Alaska, California, Hawaii, Iowa, North Carolina, North Dakota, Nebraska, Nevada, New York, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Utah, Washington, and Wisconsin	17
<b>Contracted-provision</b>	Alabama, Arizona, Arkansas, Delaware, Florida, Idaho, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Massachusetts, Mississippi, Missouri, New Mexico, Tennessee, Vermont, West Virginia, and Wyoming	20
<b>State university</b>	Connecticut, Georgia, New Jersey, and Texas	4
<b>Hybrid</b>	Colorado, Louisiana, Michigan, Minnesota, Montana, Pennsylvania, Rhode Island, and Virginia	8

Note: New Hampshire did not provide data.

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## Correctional pharmacy purchasing

States purchase the bulk of or all their prisons' pharmaceuticals in a number of ways depending on their care delivery model type, among other factors. Direct care states can contract with a pharmacy services provider, purchase through a joint purchasing organization such as the Minnesota Multistate Contracting Alliance for Pharmacy, or negotiate directly with pharmaceutical companies.<sup>12</sup> Some states that contract with a vendor for the majority of their pharmaceuticals also negotiate directly with a drug manufacturer for particular high-cost medications if they can obtain a better price.<sup>13</sup>

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## Minnesota Multistate Contracting Alliance for Pharmacy

The Minnesota Multistate Contracting Alliance for Pharmacy (MMCAP) is a group purchasing organization operated by the state of Minnesota that is open to government facilities that provide health care services. It leverages its volume of purchases to negotiate discounts from both pharmaceutical manufacturers and wholesalers. The MMCAP reports savings of approximately 24 percent off the average wholesale price for brand-name drugs and 65 percent below for generic drugs.<sup>14</sup>

Aligning the financial risk of prescriber and pharmaceutical payer is important to managing a DOC's pharmaceutical use and budget. States that contract out their prison health care most frequently include responsibility for drug purchasing as well as selection and management of the drugs that can be prescribed by prison doctors without further approval (the formulary) in the comprehensive rate they pay their vendor. Vendors make their own confidential price agreements with drug distributors for the various prisons or prison systems they manage. Such states must then put monitoring in place to guard against the built-in incentive for a contractor to delay prescribing, underprescribe, or prescribe a less expensive but less effective or less well-tolerated medication. This might occur because the cost of the prescribed drug would come directly out of the per inmate fee the vendor receives from the state. By contrast, if a state uses a contract model of health care delivery but carves out responsibility for drug purchasing and spending to another specialized vendor (as at least six of the 20 contracting states do), it must put monitoring in place to watch for the opposite incentive possibly driving contractor practice. This might include overprescribing brand-name drugs or overrelying on drugs in a situation where "watchful waiting"—to see if symptoms resolve on their own—or a nonpharmaceutical treatment such as physical therapy, psychotherapy, or even surgery (treatments that the contractor would be obligated to pay for in contrast to pharmaceuticals that these states carve out) might be more appropriate.

Departments of corrections are not eligible for the Medicaid Drug Rebate Program authorized by Section 1927 of the Social Security Act, which requires drug manufacturers to enter into a national rebate agreement with the secretary of the Department of Health and Human Services (HHS) in return for state Medicaid coverage of their products.<sup>15</sup> Under the terms of the agreement, state Medicaid programs are able to obtain the best price provided to any purchaser with the exception of the federal Department of Veterans Affairs and covered entities in the 340B Drug Discount Program.

This means that DOCs are disadvantaged as compared with state Medicaid agencies in at least two ways. DOCs have to pay more for many of the same medications that Medicaid agencies purchase and the price differential is compounded because correctional health spending is almost entirely<sup>16</sup> underwritten by the state incarcerating the individual. By contrast Medicaid is a joint federal-state program largely administered by states but at least 50 percent funded by the federal government.

## The federal 340B Drug Discount Program

Sixteen state DOCs reported that they obtained certain high-cost drugs used in their prisons through the federal 340B Drug Discount Program, codified in 1992 under Section 340B of the Public Health Service Act.

Administered by the Health Resources and Services Administration under a division of HHS, the 340B program is designed to assist community-based providers that treat a large number of low-income or uninsured patients in purchasing drugs at an advantageous price. Eligible providers are known as covered entities and include federally qualified health centers, Ryan White HIV/AIDS grantees, hospitals that serve a large number of Medicaid enrollees and uninsured individuals, and other safety net providers.<sup>17</sup>

While DOCs do not qualify as eligible providers under the program, several have entered into agreements with entities that do. DOCs that reported using the program tend to restrict its use to individuals with expensive-to-treat diseases, such as hepatitis C, HIV/AIDS, or hemophilia, because of the expense and complexity of complying with some of 340B's rules. Those rules include:

1. The covered entity has an established relationship with the individual patient, such that the covered entity maintains a health care record for the individual.
2. The individual receives health care services from a provider employed or contracted with the covered entity.
3. The individual receives health care services from the covered entity that are consistent with the range of services for which federal grant funding has been provided.<sup>18</sup>

The program also stipulates that the covered entity cannot only dispense drugs to the individual; it must also provide additional health care services.

These requirements mean that the incarcerated individual would have to receive his hepatitis C care, for example, at the 340B provider's office (or through a telemedicine visit conducted remotely via video) rather than at the prison clinic unless the facility's usual on-site provider is employed by the 340B covered entity. Direct service and contracted states access 340B drug pricing by contracting with a specific participating provider for the care of those individuals with the specific diseases whose high drug costs they wish to mitigate. If the 340B provider is located a considerable distance from the prisons in which these targeted patients are housed, the expense of arranging care partially offsets the value of using the program to obtain discounted drugs, as the Maine Corrections Pharmacy Focus Group pointed out in the 2009 "Interim Report to the Joint Standing Committees for Appropriations and Financial Affairs and Health and Human Services."<sup>19</sup>

Academic teaching hospitals tend to be 340B providers, and the four states that use public medical schools or an affiliate for general prison care all make at least some use of the program. John Pulvino, senior director of the Department of Quality Services and Risk Management at the University of Texas Medical Branch Correctional Managed Care, reports extensive use of the 340B program for its purchased pharmaceuticals—about 80 percent of all purchased drugs qualify. The program has provided it with approximately 60 percent cost savings over the past five years, a figure that Pulvino expects to rise if treatment of those incarcerated adults with hepatitis C continues to increase. He also attributes Texas' success at keeping its drug spending at 7 percent of its total DOC health budget from 2010 to 2015 to the 340B program while meeting or exceeding the Healthcare Effectiveness Data and Information Set (HEDIS) standards—the chronic disease quality measures most commonly used by health insurers.<sup>20</sup> Gaining such advantageous pricing across a large swath of drug categories might be a hidden-from-view advantage of using a state's own medical school and affiliated teaching hospital for general prison care. (See Table 2.)

Table 2

## State Departments of Corrections' Reported Use of the 340B Program by Health Care Delivery System Organizational Structure

Direct-provision	Contracted-provision	State university	Hybrid
Nevada North Dakota South Carolina Washington	Florida Illinois Kentucky Mississippi West Virginia	Connecticut Georgia New Jersey Texas	Louisiana Pennsylvania Virginia

Note: New Jersey and North Dakota both began their use of the 340B program soon after the Pew/Vera survey closed.

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### Centralized statewide purchasing

Massachusetts, a contracted-provision state, takes an innovative approach to pharmaceutical purchasing. Correctional pharmacy services are provided through the State Office of Pharmacy Services (SOPS), an agency that services 50 state and county facilities, including residential schools, developmental disability centers, and hospitals run by the departments of Mental Health and Public Health, as well as county jails. By purchasing drugs for a wider population, and therefore in larger quantities, SOPS is able to negotiate larger price reductions than the Department of Corrections would be able to obtain alone. While SOPS purchases the drugs ordered by the DOC's health services vendor, the vendor is billed for the drugs and pays for them out of its negotiated capitated rate, thus aligning the interests of the vendor and the state in prescribing efficiently and buying economically. But MassHealth, the state's Medicaid program, whose pharmaceutical purchasing is larger than all the other agencies', does not participate because it obtains better pricing on its own through the Medicaid Drug Rebate Program, for which the other entities are not eligible.

From a budget perspective, SOPS provides additional value to Massachusetts besides volume discounts. It reviews the prescribing and dispensing of prescription drugs across the system, for which some other states contract out, and compares ordering by the doctors in all 18 state prison facilities and 11 of the 12 Massachusetts county jails. Its central distribution center is open 24 hours every day of the year and makes deliveries seven days a week, including emergency deliveries within two to four hours, which eliminates the need for facility-based inventory or costly outside pharmacy backup delivery. For each client facility, it handles the state and federal licensure requirements. Because it owns all facilities' pharmacy data, SOPS is the institutional memory of pricing and utilization, allowing participating entities to enter into health service negotiations armed with detailed drug trend data. SOPS also handles all county jail claims under the HIV Drug Assistance Program, which offers free HIV drugs to low-income, uninsured people. Finally, the SOPS program is useful in terms of eliminating pharmaceutical waste. High-cost, high-volume medications are repackaged with individual bar codes. If any full or partial medication packets are returned, full credit is given and the medication is inspected and returned to stock if quality is ensured. Return and reuse of hepatitis C and HIV medications results in savings in excess of \$2 million a year.<sup>21</sup>

## Formulary

DOCs either establish drug formularies themselves or delegate that responsibility to their contractors. Formularies dictate what specific drugs in each therapeutic class are available for physicians to prescribe without further approval. They are established to offer a limited but viable choice of drugs (if more than one is available) for any condition, while creating some competition among manufacturers to offer an attractive price to the DOC in exchange for the drug being included in its formulary. For prisons, formularies are also established to ensure that the drugs prescribed are convenient to administer in a correctional environment and have a low potential for abuse. An example would be a DOC including in its formulary the atypical antipsychotic medication aripiprazole rather than quetiapine due to the propensity of the latter to be abused by prisoners.<sup>22</sup> Similarly, ear- and eyedrops that typically come in glass bottles are avoided because of the danger posed by glass if broken.

Formularies are important because a prison doctor is strongly encouraged to prescribe drugs included in the DOC's formulary although the National Commission on Correctional Health Care (NCCHC), a voluntary accrediting body for jail and prison health services, advises that DOCs establish a process for reviewing and approving the use of nonformulary drugs when medically necessary.<sup>23</sup> They are especially significant when an individual changes health care settings—for instance, is released from prison and becomes covered by that state's Medicaid preferred drug list or transfers from a jail to a prison or from a prison to a state hospital. A 2009 report to the Maine Legislature underscored this point: "Formularies vary between DOC facilities and County Jails, and between and among the County Jails. Adoption of a single, standardized formulary among correctional facilities would be advantageous, because, for example, a standard formulary would facilitate movement of an inmate with medication needs from facility to facility."<sup>24</sup> The Kansas DOC reported doing exactly that: coordinating its formulary with its county jails. Maine's report goes on to say, "Moreover, adoption of a standard formulary should not pose problems in treating inmates, because off-formulary drugs could still be prescribed as needed."<sup>25</sup>

Drug changes necessitated by formularies that do not cover the same prescription drugs can drive up the cost of an individual's care and present certain other difficulties. For example, an individual might transition into prison while on a medication not included on the DOC's formulary. Without a pre-negotiated drug price, prison officials may be forced to pay a short-term premium for the nonformulary drug until the individual can switch to one on the formulary.

Cross tapering refers to the process of gradually diminishing the dose taken of one drug while slowly increasing the dosage of another. For most drug classes, changing drugs can be done relatively seamlessly, but for both psychotropic and seizure disorder drugs—two drug classes often used in prisons—cross tapering would have to be done upon an individual's return to the community if his or her new provider's formulary did not include the DOC-issued medication. The new provider's formulary medication might be less effective for the person or less well-tolerated, with both situations likely to require multiple costly contacts with a provider just at a time when the individual no longer has easy on-site access to medical consultation or might be uninsured. While cross tapering is frequently done as patients in the general population move across payers and care settings, it can be particularly problematic and costly for men and women leaving prison, especially those with serious mental illness.

Despite the fact that many of the same drugs are bought by multiple agencies of each state, purchasing is not usually coordinated, meaning that any overlap in formularies is purely coincidental.<sup>26</sup> Several factors contribute to this lack of coordination. States that contract out their prison or Medicaid health care usually include formulary development and drug purchasing in the contract, thereby removing them from state control. Even in those states

that retain responsibility for drug purchasing by both their DOCs and their Medicaid agencies, ineligibility for the Medicaid Drug Rebate Program determines that DOCs go their own way. DOCs are also housed organizationally within a state's public safety secretariat, not health and human services, and have traditionally had no reason to coordinate clinical care with such agencies, although the passage of the Affordable Care Act with its optional Medicaid expansion began to change that. (See "Departments of Corrections and State Medicaid Agencies: Common Interests" below.)

Massachusetts' SOPS mitigates these disadvantages by stocking a wide variety of drugs and maintaining a medication use history for every person who comes under the charge of a participating facility, giving the provider information about his or her prior pharmaceutical history from any other participating facility. Thus if someone goes from jail to prison, or prison to state hospital, or recidivates and re-enters a jail or prison from the community, SOPS can bring up the person's history and the documentation of why particular drugs were prescribed. The almost universal inventory that SOPS stocks makes it easy for any participating facility to continue the individual's optimal regimen even if it consists of drugs not usually used by that facility. But because the state's Medicaid agency is not a participant in SOPS, its enrollees' pharmaceutical utilization is not available to SOPS, which prevents it from facilitating the transition from prison health care to MassHealth coverage and vice versa. It does, however, provide each person exiting a Massachusetts correctional facility his or her prescription history and drug allergy profile that can be handed to the new community health provider.<sup>27</sup>

## Copayments

Forty-one states reported that they charge copayments for at least some health care services. Copayments are levied for a variety of different types of care: individual-initiated primary or specialist visits, care needed due to an altercation, or the purchase of a particular piece of durable medical equipment such as eyeglasses or a prosthesis. One state, Texas, does not charge copayments for distinct services but instead levies a flat annual health care services fee of \$100 upon an individual's first self-initiated visit in any 12-month period. But as in many of the other copayment-charging DOCs, certain visits do not trigger the charge, including an initial request for a mental health review, care related to the diagnosis or treatment of a communicable disease, and emergency care. The fee covers all subsequent health care services for the following 12 months.<sup>28</sup>

Thirteen of the 41 copayment-charging states reported imposing copayments for pharmaceuticals although all except Utah<sup>29</sup> exempt certain drug classes or clinical situations from these fees. Exemptions include but are not restricted to drugs ordered for treatment of a mental illness and initial or continuing treatment of a chronic disease or public health concern, such as tuberculosis. Some DOCs charge one medication copayment regardless of how many prescriptions are filled at one time<sup>30</sup> while others charge for each nonexempt medication issued during an individual-initiated clinic visit.<sup>31</sup> Pharmacy copayments per prescription (for either a first fill or a 30-day refill) ranged from \$1 (New Jersey) to \$5 (Alaska, Georgia, Pennsylvania, and South Carolina),<sup>32</sup> similar to the copayments that some state Medicaid agencies charge their enrollees.<sup>33</sup> While such individual amounts seem small, costs can accumulate for those taking multiple medicines and/or chronic maintenance medicines, especially considering that most prescription copayment-charging states also impose copayments on the physician visit that must precede at least the initial issuing of the prescription. And in practical terms, even among the 28 states that charge visit but not prescription copays, an individual is likely to face a copay to obtain a drug since a physician visit is the usual gateway to a prescription.

No state DOC reported that it charged a higher copayment for a brand-name drug compared with a generic one, as is common among insurers. Nor did any report charging a copayment for a brand-name drug only if a generic one is available, as at least some Medicaid agencies do.<sup>34</sup>

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## Over-the-Counter Drugs and State Prison Health Care Systems

There is considerable variation in DOC policies regarding individual access to, and payment for, over-the-counter (OTC) drugs, which can be legally accessed without a prescription. DOCs can apply their prescription drug copayment policy to prescribed short-term OTC drugs as well as prescribed long-term maintenance OTC drugs such as baby aspirin (used to prevent heart attacks and strokes) and ibuprofen (used to reduce chronic pain from osteoarthritis).<sup>35</sup> Other DOCs have individuals purchase such ongoing therapies from the commissary.<sup>36</sup> OTC drugs used on an occasional basis are either sold at retail prices by the commissary<sup>37</sup> or available for a fee or for free on a limited basis from medical staff or a custody officer in each living unit.<sup>38</sup>

In contrast, the New York State Department of Corrections and Community Supervision (DOCCS) chief budget analyst wrote, "NYS DOCCS does not support inmate co-pays. There are concerns that inmates would fail to seek treatment when necessary and delay treatment until their condition has worsened, resulting in higher treatment costs for DOCCS." In fact, research has shown exactly that. A 2003 issue of the Centers for Disease Control and Prevention's *Morbidity and Mortality Weekly* reported that at least three incarceration facilities in Georgia and one Texas state prison identified more than 50 and several thousand cases, respectively, of prisoner infections caused by methicillin-resistant *Staphylococcus aureus*. Some incidents were serious enough that the individual had to be hospitalized for wound care. CDC identified four factors as contributing to these outbreaks, including "proper access to medical care was hindered by co-payments required for acute care visits and by inadequate supplies and staff for wound care."<sup>39</sup> Copayments have also been shown to reduce essential prescription drug use among community-dwelling Medicaid enrollees and other low-income individuals.<sup>40</sup>

In light of these concerns, the NCCHC has issued guidelines for establishing a copayment program, including monitoring clinical outcomes to ensure that patients' conditions do not worsen because of these fees, excluding services not initiated by the individual (for example, intake screenings, emergency care, and prescriptions), and ensuring that fees are small and that no one is denied care because of inability to pay.<sup>41</sup> (See Table 3.)

Table 3

## Departments of Corrections' Pharmaceutical Copayment Policies by Health Care Delivery System Organizational Structure

	Direct-provision	Contracted-provision	State university	Hybrid
<b>Copayments charged for some or all prescription drugs</b>	Alaska Oklahoma South Carolina Utah	Delaware Idaho West Virginia	Georgia New Jersey	Louisiana Pennsylvania Rhode Island Virginia
<b>Copayments charged, but not for prescription drugs</b>	California Hawaii Iowa Nevada North Carolina North Dakota Ohio Oregon South Dakota Washington Wisconsin	Alabama Arizona Arkansas Florida Illinois Indiana Kansas Kentucky Maryland Massachusetts Mississippi Tennessee	Connecticut Texas	Colorado Michigan Minnesota
<b>No visit or prescription drug copayments are charged</b>	Nebraska New York	Maine Missouri New Mexico Vermont Wyoming		Montana

Note: DOCs reported requiring copayments for a variety of health care goods and services, including provider visits, patient-initiated sick call, dental care, vision care, medications, and durable medical equipment.

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DOCs do not withhold health care services from those deemed unable to pay (as measured by the individual's commissary fund) but may garnish either future earnings from prison jobs or future commissary deposits made by family members.<sup>42</sup> But the NCCHC cautions in its policy statement on charging incarcerated adults a fee for health care services because "inmates frequently have low health literacy ... [They] may not understand the concept of being seen regardless of their ability to pay."<sup>43</sup>

All 41 states that charge copays at all reported collecting small sums of money through their programs—from less than 0.1 percent of state correctional health care expenditures in Maryland to 1.1 percent in Utah. One state volunteered that it used the collected copayments to fund telemedicine programs, while another noted using them for medical form printing. But some states' policies and publications make explicit that they believe the imposition of copays serves other purposes. Alabama DOC's policy states: "ADOC is not required to provide health care to an inmate free of charge when such care would not be free outside the correctional setting and when an inmate has the means to pay. ... Requiring inmates with adequate resources to pay for a small portion of their medical care in the form of co-pays also furthers the goal of instilling inmate responsibility by having

them make resource allocation decisions.”<sup>44</sup> Louisiana noted in an informational pamphlet about its adult prison facilities that “[Visit] co-payments were instituted as a means of curtailing inmate abuse of sick call (claiming illness to avoid work) and quickly relieved the system of artificial volume, thereby freeing medical staff to see inmates who need to be seen. The practice also models the system in place for most taxpayers.”<sup>45</sup>

Operating a DOC copayment system comes with a cost. The Oregon DOC concluded that in administering a system—assessing, collecting, and addressing exceptions and appeals—each transaction would cost the DOC an estimated \$3 to \$5, and only a portion of copayments would be collected.<sup>46</sup> Similarly in 2011, the Massachusetts Executive Office of Public Safety and Security issued the report of the Special Commission to Study the Feasibility of Establishing Inmate Fees, which concluded that any additional fees would increase costs to taxpayers because of expenses connected to implementing the fees. It also predicted another negative and unintended consequence: Additional fees would probably increase recidivism because “successful reentry, already a challenge, will become a greater challenge because additional fees will decrease the already limited savings and economic resources available to inmates upon release.”<sup>47</sup>

The imposition of prescription copayments is noteworthy because neither of two common rationales for such levies among patients in the community is applicable in a prison setting. The first is to counteract “moral hazard,” a term that in a health care context refers to the tendency of individuals to overuse goods and services paid for by someone else or by a group, rather than oneself. Under the moral hazard rationale, a person gains motivation to comparison price shop, request a generic version of a prescribed drug, or forgo the drug altogether if required to pay some or all of the drug’s cost. But an incarcerated individual cannot behave like an “activated” consumer because he or she cannot choose where to purchase a prescription after comparing prices and is not in a position to obtain a second medical opinion regarding the necessity of even taking the drug. Second, a copayment serves to shift at least some portion of the cost of the pharmaceutical from the purchaser (whether that is a DOC, an employer, Medicare, or Medicaid) to the patient. But the very low amounts that states reported collecting from copayments across all medical services (not just pharmaceuticals) suggest that prisoner copayments do not materially help states shoulder the cost burden of providing health care services to their populations.

## **Correctional pharmacy data and utilization**

### Pharmacy data

As with prison health care more broadly, an assessment of DOCs’ prescription drug utilization and purchasing requires reliable data. Such information is especially important in states where DOCs are paying a comprehensive rate or capitation to contractors for providing health services. Without an understanding of which drugs are being provided and what is being spent on them, DOCs limit their ability to monitor the value of their prescription drug spending. Moreover, without appropriate data, DOCs are at a disadvantage in future contract negotiations since prescription drugs account for such a significant and growing segment of health care spending. To help fill in the knowledge gap in this area, Pew asked DOCs what they spent in total on pharmaceuticals and to name their three most expensive prescription drugs by unit price and their three most expensive prescription drugs by total expenditure in fiscal 2015.

Only 11 states (with a mix of all organizational structures) could report what they or their vendor spent in total on pharmaceuticals, although 41 states were able to identify at least some of their most expensive drugs.

Of the eight states that did not supply researchers with any of their highest-cost pharmaceuticals as requested on the survey, seven contract with a private vendor for most health care service delivery. In contrast, 13 contracting model states were able to supply such data, even while contracting with some of the same vendors, implying that such information is available if the state requires it. Contracting or hybrid states that choose to omit responsibility for purchasing pharmaceuticals from their medical contracts can retain that function for the DOC or contract it out to a dedicated pharmacy services provider. This gives those DOCs similar access to pharmaceutical cost and utilization data as any direct service state. (See Table 4.)

Table 4

## Departments of Corrections' Ability to Provide High-Cost Drug Data Varied by Health Care Delivery System Organizational Structure

	Direct-provision	Contracted-provision	State university	Hybrid
<b>Provided FY 2015 high-cost drug data</b>	Alaska California Hawaii Iowa Nebraska Nevada New York North Carolina North Dakota Ohio Oklahoma Oregon South Carolina South Dakota Utah Washington Wisconsin	Alabama Arizona Delaware* Florida Illinois Kentucky* Maryland* Massachusetts* Mississippi New Mexico Tennessee* Vermont* West Virginia	Connecticut New Jersey Texas	Colorado Louisiana Michigan* Minnesota Montana Pennsylvania* Rhode Island Virginia
<b>Did not provide FY 2015 high-cost drug data</b>		Arkansas Idaho Indiana Kansas Maine Missouri Wyoming	Georgia	

\* These states carve out pharmacy services from their medical care vendor.

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### Highest-cost pharmaceuticals, by unit price

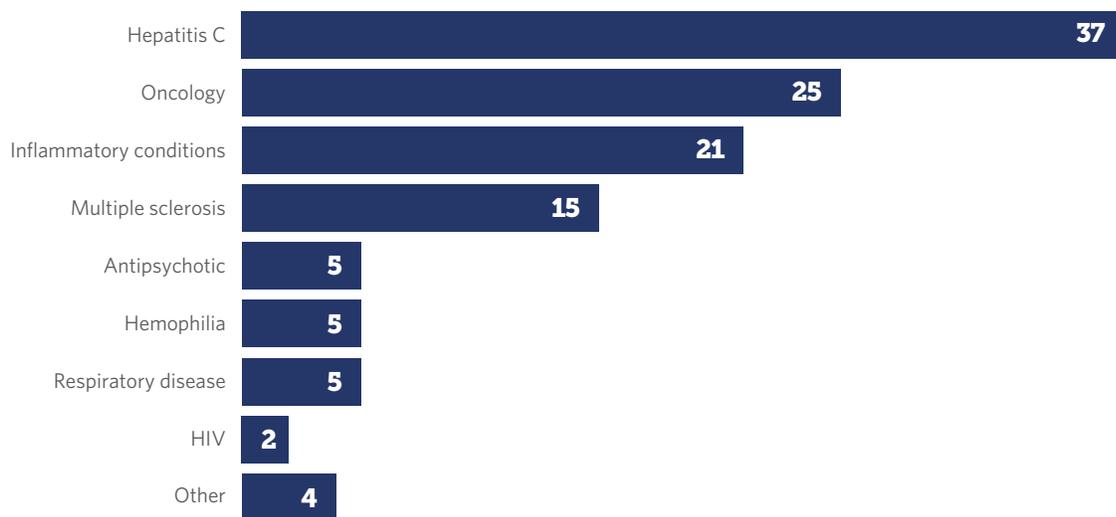
Thirty-nine states reported information regarding their three most expensive prescription drugs by unit price in fiscal 2015 while one state submitted information about only two such drugs. These drugs are expensive at the prescription level, even if infrequently prescribed.

Medications for hepatitis C (listed 37 times), oncologic conditions (25), the treatment of inflammatory conditions, such as rheumatoid arthritis, Crohn's disease, and plaque psoriasis (21), and multiple sclerosis (15) led among DOCs' frequently cited expensive prescription drugs by unit price. (See Figure 2.)

Figure 2

### Hepatitis C Drugs Most Often Cited as High Cost by Unit Price

Most expensive prescription drugs, listed by therapy class, FY 2015



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### Highest-cost pharmaceuticals, by total expenditure

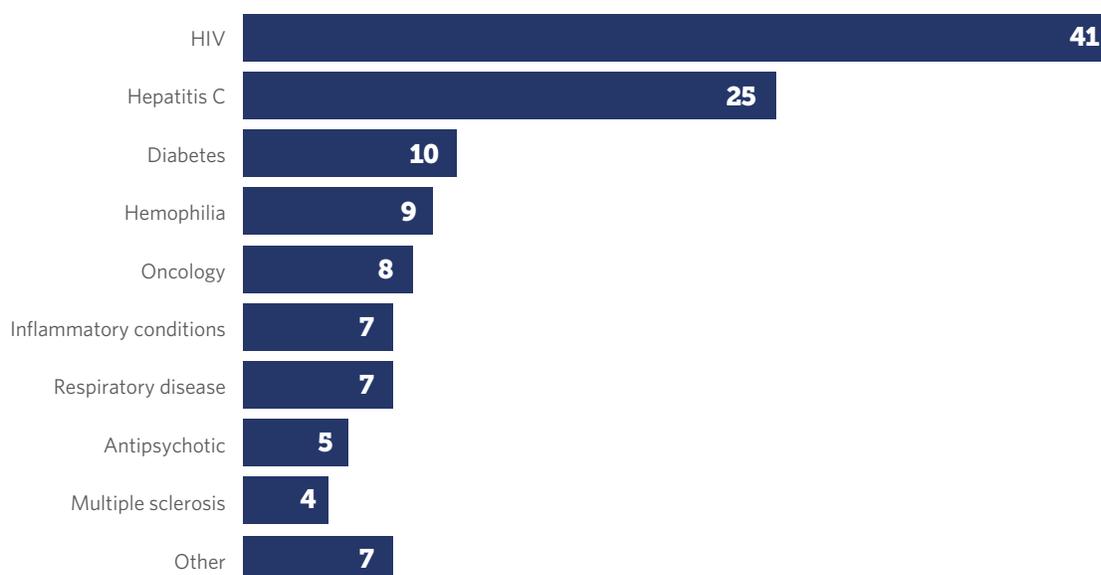
Forty-one states reported information regarding their three most expensive prescription drugs by total expenditure in fiscal 2015. Even if a drug is not expensive at the individual prescription level, it can appear on this list if it is used widely among the correctional population.

Medications for HIV (41 citations of drugs), hepatitis C (25), and diabetes (10) were leaders among DOCs' most expensive prescription drugs by total expenditure. (See Figure 3.)

Figure 3

## HIV Drugs Most Often Cited as High Cost by Total Expenditure

Most expensive prescription drugs, listed by therapy class, FY 2015



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### An analysis of departments of corrections' highest-cost drugs

Two drug classes cited only twice or missing completely from the DOC-supplied list of high unit cost drugs while appearing on the high total expenditure list are medications for HIV and diabetes. This discrepancy is testament to their significant decrease in unit price relative to other drug classes over the past few years but also to the high prevalence of those diseases within the correctional system. A 2015 analysis by the Bureau of Justice Statistics found that 1.3 percent of state and federal prisoners reported ever having HIV or AIDS, as compared with 0.4 percent among a demographically similar sample from the general population. Similarly, 9 percent of state and federal prisoners reported ever having diabetes, compared with 6.5 percent in the general population sample that was standardized to match the prison population by sex, age, race, and Hispanic origin.<sup>48</sup>

Relatively few states listed psychiatric drugs among their most expensive medications by either unit price or by total expenditures. The absence of these drugs on both lists is not because of low usage: For example, data from 30 of Virginia's 47 prisons show that 32 percent of incarcerated adults had a prescription for a psychiatric drug.<sup>49</sup> Rhode Island reported that such drugs accounted for one-third of their DOC's overall pharmacy budget.<sup>50</sup> Rather, the omission of psychiatric drugs from state "high-cost" lists is attributable to the availability of reasonable lower-cost psychotropic alternatives and a drop in the high price of some older ones due to these drugs coming off patent during the past several years—as other high-priced drugs for the treatment of hepatitis C came to

market, immediately taking over the high-cost mantle.<sup>51</sup> Furthermore, some DOCs have contracts with mental health care providers that may include the purchase and provision of psychiatric drugs. In these cases, it is possible that data about the cost and frequency of use of these drugs are not available to the state.

No DOC listed among its high-cost drugs any of the three Food and Drug Administration-approved pharmaceuticals used for medication-assisted treatment (MAT) of opioid use disorder: methadone, buprenorphine, and naltrexone. Their absence probably reflects their relative lack of use as of the date of the Pew/Vera survey.<sup>52</sup> However, during follow-up interviews with a variety of DOC medical staff, several states (including Louisiana, North Dakota, and South Dakota) mentioned the formation of task forces to explore the issue. Pennsylvania noted that it had launched a small pilot program the year before using naltrexone, coupling the injection with a confirmed follow-up appointment in the community to which the person would be returning. Idaho and Michigan cited the high potential cost of a widespread program as a deterrent. However, even if many DOCs ultimately adopt wider use of MAT for those with a history of substance use disorder, their expenses for these medicines might be modest despite the large number of incarcerated adults who have these disorders if they restrict the therapy to individuals leaving prison, as some jails currently do.<sup>53</sup>

## **Comparing high-cost prison pharmaceuticals to utilization by other populations**

It can be instructive to compare high-cost pharmaceuticals bought by various health care purchasers because overlap, should it exist, can identify common interests among payers. Such data can be particularly useful when they reveal commonalities among two agents of the same jurisdiction, such as departments of corrections and state Medicaid agencies. Pew researchers used data from the “2015 Drug Trend Report” from Express Scripts, the largest pharmacy benefits manager in the U.S.,<sup>54</sup> to examine high-cost drugs used by Medicaid managed care enrollees in health plans served by Express Scripts as well as the enrollees of their commercially insured clients (generally through employer-sponsored health insurance)<sup>55</sup> and compared these data with DOC-submitted pharmaceutical data. (See Table 5.)

Table 5

## High-Cost Pharmaceuticals Across Purchasers Show More Similarities Than Differences

High-cost drug data from department of corrections, Medicaid, and commercially insured data from Express Scripts, 2015

**Department of corrections' most expensive prescription drugs by total expenditure, listed by therapy class<sup>\*</sup>**

	Therapy class	Count
1	HIV	41
2	Hepatitis C	25
3	Diabetes	10
4	Hemophilia	9
5	Oncology	8
6	Inflammatory conditions	7
7	Respiratory disease	7
8	Antipsychotic	5
9	Multiple sclerosis	4
10	Other	7

**Most expensive prescription drugs by per member per year spending for Medicaid enrollees, listed by therapy class<sup>†</sup>**

	Therapy class	Per-member per-year spending
1	HIV	\$131.80
2	Diabetes	\$97.03
3	Mental/neurological disorders	\$71.97
4	Hepatitis C	\$62.96
5	Asthma	\$62.73
6	Attention disorders	\$52.00
7	Pain/inflammation	\$51.18
8	Inflammatory conditions	\$41.30
9	Oncology	\$27.50
10	Multiple sclerosis	\$24.36

**Most expensive prescription drugs by per member per year spending for commercially insured, listed by therapy class<sup>‡</sup>**

	Therapy class	Per-member per-year spending
1	Inflammatory conditions	\$89.10
2	Diabetes	\$77.50
3	Multiple sclerosis	\$53.31
4	Oncology	\$49.62
5	Pain/inflammation	\$40.65
6	Hepatitis C	\$38.44
7	High blood cholesterol	\$32.66
8	HIV	\$31.53
9	Attention disorders	\$29.44
10	High blood pressure/ heart disease	\$25.70

Notes: "Count" represents the number of states that listed a drug in that therapy class among their three most expensive drugs by total expenditure. Therapy classes in the Medicaid and commercially insured categories are ranked by per member per year spending.

\* Data from Pew/Vera 50-state survey.

† Data from Express Scripts, "Express Scripts 2015 Drug Trend Report (March 2016), <https://lab.expressscripts.com/lab/~/-/media/e2c9d19240e94fcf893b706e13068750.ashx>Therapy.

‡ Ibid.

Sources: Data for Medicaid managed care and commercially insured enrollees come from "Express Scripts 2015 Drug Trend Report." Therapy classes are ranked by per member per month spending. Data for corrections departments were reported to Pew and Vera through a 50-state survey. Therapy classes are ranked by the number of states that mentioned a drug in that therapy class among their three most expensive drugs by total expenditure.

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The list of high-cost drugs purchased by the DOCs was quite similar to that of Medicaid, but both lists differ in certain respects (primarily rank) from that of commercially insured Express Scripts clients. Most notably, antipsychotic drugs such as Abilify (aripiprazole) and Seroquel (quetiapine)—classified under mental/neurological disorders on Express Scripts' list and as an antipsychotic on Pew's DOC list—play an important therapeutic role for both Medicaid enrollees and incarcerated adults, among whom serious mental illness is significantly more prevalent than in the population as whole.<sup>56</sup> These drugs did not appear on the top 10 list for commercially insured individuals.

Medications for the treatment of HIV (such as Atripla and Viread) appeared at the top of both Express Scripts' list for Medicaid enrollees and the DOCs' list, attesting to the prevalence of the disease in both populations. These medications were somewhat less commonly purchased by the commercial insurers.

There were also similarities among the three lists. Inclusion of diabetes medications (such as Lantus and other insulins) illustrates that all three purchasers share a large stake in the country's diabetes problem, cited by the American Diabetes Association as the country's seventh-leading cause of death in 2015.<sup>57</sup> Similarly, all three lists included medications for the treatment of inflammatory conditions and oncology diagnoses.

FDA approval of several effective yet expensive curative medications (such as Harvoni and Sovaldi) has increased the cost of hepatitis C treatment for all three payers. While the effectiveness of these drugs greatly improves the likelihood of successful treatment, their high price is a significant barrier across all settings, but especially prisons and Medicaid agencies that have a disproportionate share of this disease in their populations.<sup>58</sup>

Seven DOCs reported medications for the treatment of hemophilia among their top three most expensive prescription drugs. In two states—Kentucky and Oklahoma—hemophilia drugs accounted for two of the DOC's three most expensive drugs. Hemophilia—which affects fewer than 20,000 Americans, almost exclusively men<sup>59</sup>—not only requires expensive drug therapy but also increases transportation and security costs for prisons, as individuals often need to receive treatment at hemophilia treatment centers<sup>60</sup> and are more likely to require an emergency department visit.<sup>61</sup> Hemophilia drugs did not appear on either the Medicaid or commercially insured list.

One category where there was no overlap between Express Scripts' Medicaid enrollees and DOC populations was drugs used for the treatment of attention disorders (such as Vyvanse and Strattera). DOCs prefer not to use these medications because of their abuse potential. Also, these medications are used largely for children and adolescents, a population for which Medicaid is a key insurer but DOCs have a minimal role.

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## Important Differences Between the Two Data Sources

The “Express Scripts 2015 Drug Trend Report” includes drug use data for individuals with prescription drug coverage provided by Express Scripts. The report groups individual drugs into therapeutic classes and ranks those classes based on per member per year spending. Therapy class rankings are included for commercially insured and Medicaid enrollees.

While a comparison of Express Scripts’ lists with Pew’s data can be helpful, caution should be used when making direct comparisons. Below are some considerations:

- Express Scripts classifies all drugs paid for by its client enrollees, while Pew requested that DOCs list only their top three most expensive drugs. This could lead to comparability issues for ailments with a wide range of drugs used for treatment of a specific condition. If the range of drugs has a high total expenditure in aggregate, that condition will show up on Express Scripts’ list. However, unless individual drugs are high cost, they probably will not show up on Pew’s list.
- Pew’s list is ranked based on the number of state DOCs that mentioned a particular drug among their top three most expensive, while Express Scripts’ list is ranked based on per member per year spending for all enrollees within a particular category.
- The classes are not exactly the same. As an example, Express Scripts classifies Abilify (aripiprazole) and Seroquel (quetiapine) under mental and neurological disorders, while Pew classifies those drugs under antipsychotics.

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## The importance of health re-entry planning for individuals leaving correctional facilities

In a 2011 article published by the RAND Corp., “Understanding the Public Health Implications of Prisoner Reentry in California,” provider interviewees pointed to a variety of factors that hinder re-integration among the formerly incarcerated adults who are chronically ill: an insufficient supply of bridge medications (especially psychiatric medications) to tide one over until a prescription renewal can be obtained from a community-based provider, a lack of easily available medical records, and differences in drug formularies used by prisons and community providers, all of which could be mitigated through better coordination between governmental agencies.

To address the potential insufficient supply of bridge medications underscored in the RAND report, Connecticut launched a system in 2011 that ensures that, upon discharge, anyone who received general medical or psychiatric care from the DOC or the courts while incarcerated (unsentenced or sentenced) is enrolled in a pharmacy voucher program, usually in the weeks prior to release from the correctional facility (Connecticut is one of six states that administer both the state’s prisons and jails). Dr. Robert Trestman, former executive director of Correctional Managed Health Care, described it this way: “At the point that someone who has been enrolled into this program leaves the facility, he or she is given a piece of paper, which we call a voucher that explains to a pharmacist that the individual received medical care while incarcerated. The voucher also lists a phone number

that the pharmacist can call to verify what medication the individual needs. This voucher can be taken to any pharmacy in the state of Connecticut that has a contract with Medicaid, which is essentially every pharmacy in the state. The pharmacists can then call our pharmacy, which is open 24/7 to have them send, either by fax or by phone, a list of all the prescriptions the individual is on. The individual is then given a full month of medication by that pharmacy, half of which is paid for out of the correctional healthcare budget and the other half of which is paid for by Medicaid.”<sup>62</sup>

Missouri also has a program for exiting individuals that relies on the use of vouchers. The DOC provides a 30-day supply of prescribed medications upon release. If the person runs out before establishing a community provider, he or she can receive up to two 30-day refills from the nonprofit pharmacy Rx Outreach with which the department partners.<sup>63</sup>

These voucher programs are likely to help many released individuals maintain their pharmaceutical regimen at least in the short term, although they can be challenging to mentally ill or cognitively impaired persons.<sup>64</sup>

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### Departments of Corrections and State Medicaid Agencies: Common Interests

In addition to having a number of costly drugs in common, state Medicaid programs and prison health care providers serve some of the same men and women, although at different points in time.<sup>65</sup> Since 2014, 31 states and the District of Columbia have expanded eligibility for their Medicaid programs, as permitted by the Affordable Care Act. Medicaid expansion made low-income adults not living with or supporting a minor child—a category that describes most incarcerated adults—newly eligible for the program. There have always been some leaving prison who have qualified for post-release coverage under the traditional (pre-expansion and nonexpansion) aged, blind, and disabled eligibility standards. But Medicaid expansion greatly increased the pool of eligible exiting individuals, giving state Medicaid agencies more of a stake in the care provided in prisons. This is because if a DOC did a good job of screening, diagnosing, and managing illnesses while someone was in prison, Medicaid providers would only need to continue an already-proven treatment plan at the point of a person’s release. States have a built-in stake in protecting the investment their DOCs made in treating each inmate.

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DOCs can initiate a multifaceted care handoff that could include, among other things, helping eligible individuals exiting prison to apply to the state’s Medicaid program. Chronic conditions that are diagnosed and managed successfully within prisons should only have to be maintained—not diagnosed and stabilized—under Medicaid coverage upon release. But a good care handoff might have even greater impact: A 2007 retrospective study showed that individuals released from prison had a high risk of death, particularly during the first two weeks following release, with the leading causes of death being drug overdose, cardiovascular disease, homicide, and suicide.<sup>66</sup> While insurance coverage alone would not be likely to eliminate that risk, a seamless handoff to a specially trained care or case manager may mitigate it. Seamlessness—or continuity of care across settings—would facilitate the health care transition for individuals entering prison, as well as the subsequent release of

the 95 percent who eventually return to their communities and seek ongoing care there. Smooth health care transitions—whether from physician office to hospital, hospital to nursing home, jail to prison, or prison to community—reflect good clinical care and good stewardship of financial resources.<sup>67</sup>

Preserving upon exit and beyond the state's investment in the person's health during incarceration can make scarce DOC and Medicaid dollars more effective than they otherwise would be. A smooth health care transition would be likely to facilitate the individual's re-integration into his or her community and for some, even lower recidivism.<sup>68</sup> Similarly, a state's overall public health would benefit from seamless health care handoffs among the justice-involved population since it has such a high prevalence of disease.

A number of DOCs reported a wide variety of care handoff steps for those exiting prisons, including making a full medication record available or making confirmed appointments with community providers for those with HIV/AIDS or hepatitis C. Other states are expanding the responsibilities of their parole officers to include some care oversight such as the monitoring of mandated continuing mental health treatment, a condition of release for some men and women.<sup>69</sup> By making them aware of parolees' continuing care needs or obligations (with the written permission of the individual if required), these officers can determine whether the parolee has kept scheduled medical appointments or refilled prescriptions. Missouri's parole officers are the liaisons with Rx Outreach when they are notified that a person is running short of bridge medications.<sup>70</sup> While not substituting for full-fledged care or case management often found within a medical home, such nudges may serve as additional reinforcement for someone new to self-managing chronic illnesses within our notoriously complex community health system.

## **Conclusion**

Departments of corrections spend a considerable portion of their budgets on pharmaceuticals for an incarcerated population that is sicker than most, increasingly aged, and often experiencing the cumulative effects of many years of poor health practices and neglected preventive care. States must think strategically about the best way to purchase and utilize pharmaceuticals, keeping in mind that there may not be one optimal approach.

While DOCs' health budgets are smaller than state spending on Medicaid, they share Medicaid agencies' challenge to provide good quality medical care at a sustainable cost. And like a majority of Medicaid programs, many states provide prison care through contracted providers—an arrangement that requires states to set standards of care, payment rates, and reporting requirements in order to ensure that the care they contract for is consistently and effectively administered. The Pew/Vera research showed that DOCs vary greatly in how and to what degree they collect the necessary data and carry out that monitoring.

## Methodology

Data for this report were collected as part of a larger survey conducted in 2015-16 by The Pew Charitable Trusts in partnership with the Vera Institute of Justice. The survey, which was addressed to senior budget staff of state departments of correction, asked about correctional health care spending, delivery system, and staffing. It included items on:

**Health care delivery system** in fiscal 2015. Departments were classified as either:

- Direct-provision—most health care services provided by non-university-based state employees.
- Contracted-provision—most health care services provided by contractor and contractor's staff.
- State university provision—most health care services provided by state medical school(s) or affiliated organization(s).
- Hybrid—most health care services provided by a combination of nonuniversity state employees, contracted employees, and/or state university employees.

**Total health care and pharmaceutical spending** for care provided to adults under the jurisdiction of the state department of corrections in fiscal 2010 through 2015.

Health care spending—funded by state or federal funds—included that for on-site care (provider and administrative compensation, medical and diagnostic lab services), off-site care (inpatient, outpatient, emergency, dialysis, medical and diagnostic labs), outpatient medical products (prescription drugs, medication-assisted treatment, durable medical equipment, nondurable medical products/supplies), long-term care, and other health, residential, and personal care (dialysis, hospice, residential mental health and substance abuse treatment). These categories were modeled after the Centers for Medicare & Medicaid Services' National Health Expenditure Accounts.

Respondents were asked whether they were able to provide disaggregated expenditures using categories provided by Pew and Vera, and, if not, what challenges prevented them from doing so. Respondents were also invited to report such data using the approach their department used to track them. Only 11 states were able to disaggregate data for spending on prescription drugs.

**Most expensive prescription drugs.** The survey asked for the names of corrections departments' three most expensive prescription drugs by unit price for fiscal 2010 and 2015, along with names of their three most expensive prescription drugs by total expenditure for fiscal 2010 and 2015. These drugs included both oral and clinician-administered drugs (e.g., cancer infusions, other injectable drugs).

**Cost drivers.** Respondents were asked to describe any factors that have contributed to rising health care costs in their corrections system. Many respondents mentioned prescription drugs as a cost driver.

**Cost-containment strategies,** including whether the corrections department uses the federal 340B Drug Discount Program.

## Limitations

This research relied nearly exclusively on self-reported data and information from state officials. Researchers went to great lengths to develop clear, widely relevant, and adaptable survey instruments, rigorously inspect responses for possible inaccuracies, and probe respondents for corrections and greater clarity and explanation. But it was not possible for researchers to independently verify every data point.

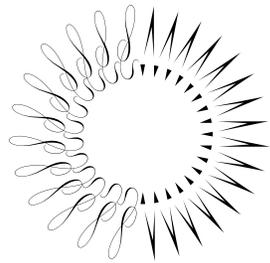
## Endnotes

- 1 Centers for Medicare & Medicaid Services, "National Health Expenditure Data: Historical," last modified Dec. 6, 2016, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>.
- 2 Centers for Medicare & Medicaid Services, "National Health Expenditure Data: Projected," last modified March 21, 2017, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>.
- 3 Prescription Drug Market: Hearing Before the Oversight and Government Reform Committee, House of Representatives, 114 Cong. 1 (2016), <https://www.c-span.org/video/?404183-1/hearing-prescription-drug-market>; and American Medical Association, "Physicians Call for Fairness in Drug Prices, Availability," *AMA Wire*, Nov. 17, 2015, <https://wire.ama-assn.org/ama-news/physicians-call-fairness-drug-prices-availability>.
- 4 See, for example, Debbie Elliott, "Alabama's Prison System Goes on Trial," *National Public Radio*, Dec. 5, 2016, <http://www.npr.org/2016/12/05/504183751/alabamas-prison-system-goes-on-trial>; and Stephen Kloosterman, "Michigan Prison Healthcare Workers Sued for Prisoner's Worsening Health, Death," *MLive.com*, Oct. 24, 2016, [http://www.mlive.com/news/muskegon/index.ssf/2016/10/michigan\\_doc\\_healthcare\\_worker.html](http://www.mlive.com/news/muskegon/index.ssf/2016/10/michigan_doc_healthcare_worker.html).
- 5 The Pew Charitable Trusts, "Prison Health Care: Costs and Quality" (October 2017), [http://www.pewtrusts.org/-/media/assets/2017/10/sfh\\_prison\\_health\\_care\\_costs\\_and\\_quality\\_final.pdf](http://www.pewtrusts.org/-/media/assets/2017/10/sfh_prison_health_care_costs_and_quality_final.pdf).
- 6 The Council of State Governments Justice Center, "Frequently Asked Questions: Implications of the Federal Health Legislation on Justice-Involved Populations," accessed Aug. 2, 2017, [https://csgjusticecenter.org/wp-content/uploads/2012/12/FAQs\\_Federal\\_Health\\_Legislation\\_on\\_Justice\\_Involved\\_Populations\\_REV.pdf](https://csgjusticecenter.org/wp-content/uploads/2012/12/FAQs_Federal_Health_Legislation_on_Justice_Involved_Populations_REV.pdf); The Pew Charitable Trusts, "Prison Health Care"; and Tina Chiu, "It's About Time: Aging Prisoners, Increasing Costs, and Geriatric Release," Vera Institute of Justice (April 2010), <http://www.vera.org/sites/default/files/resources/downloads/Its-about-time-aging-prisoners-increasing-costs-and-geriatric-release.pdf>.
- 7 Laura M. Maruschak, Marcus Berzofsky, and Jennifer Unangst, "Medical Problems of State and Federal Prisoners and Jail Inmates, 2011-12," Bureau of Justice Statistics (February 2015), <http://www.bjs.gov/content/pub/pdf/mpsfjji1112.pdf>; Ingrid A. Binswanger, "Chronic Medical Diseases Among Jail and Prison Inmates," *Corrections Connection*, Oct. 25, 2010, <http://www.corrections.com/news/article/26014-chronic-medical-diseases-among-jail-and-prison-inmates>; and Ingrid A. Binswanger et al., "Risk Factors for Cervical Cancer in Criminal Justice Settings," *Journal of Women's Health* 20, no. 12 (2011): 1839-45. doi:10.1089/jwh.2011.2864.
- 8 Centers for Medicare & Medicaid Services, "National Health Expenditure Tables, Table 4: National Health Expenditures by Source of Funds and Type of Expenditure," <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>.
- 9 Andrew Howland (chief budget analyst, New York State Department of Corrections and Community Supervision), pers. comm., Jan. 22, 2016.
- 10 Adam L. Beckman et al., "New Hepatitis C Drugs Are Very Costly and Unavailable to Many State Prisoners," *Health Affairs* 35, no. 10 (2016): 1893-901.
- 11 M. Christopher Roebuck et al., "Increased Use of Prescription Drugs Reduces Medical Costs in Medicaid Populations," *Health Affairs* 34, no. 9 (2015): 1586-93.
- 12 Beckman et al., "New Hepatitis C Drugs," 1897.
- 13 *Ibid.*
- 14 National Conference of State Legislatures, "Pharmaceutical Bulk Purchasing: Multi-state and Inter-agency Plans," Nov. 4, 2016, <http://www.ncsl.org/research/health/bulk-purchasing-of-prescription-drugs.aspx>.
- 15 Centers for Medicare & Medicaid Services, "Medicaid Drug Rebate Program," last updated Feb. 15, 2017, <https://www.medicare.gov/medicaid/prescription-drugs/medicaid-drug-rebate-program/index.html>.
- 16 Only 14 departments of corrections reported receiving federal funds for prison health care in fiscal 2015, accounting for less than 1 percent of their total health care spending.
- 17 See a full list here: Health Resources & Services Administration, "340B Drug Pricing Program," accessed Aug. 14, 2017, <https://www.hrsa.gov/opa/>.
- 18 Disproportionate share hospitals are exempt from this requirement. Notice Regarding Section 602 of the Veterans Health Care Act of 1992 Patient and Entity Eligibility, 61 Fed. Reg. 207 (Oct. 24, 1996), <https://www.hrsa.gov/opa/programrequirements/federalregisternotices/patientandentityeligibility102496.pdf>.

- 19 Maine Corrections Pharmacy Focus Group, "Interim Report to the Joint Standing Committees for Appropriations and Financial Affairs and Health and Human Services" (2009), <https://www.maine.gov/corrections/BOC/refs/InterimReport.doc>.
- 20 John Pulvino (senior director, quality and outcomes, University of Texas Medical Branch), interview with The Pew Charitable Trusts, June 30, 2017.
- 21 Donald Rogers (chief, pharmacy services, Massachusetts State Office of Pharmacy Services), interview with The Pew Charitable Trusts, Dec. 21, 2016.
- 22 Bruce Gage (chief, psychiatry, Washington State Department of Corrections), interview with The Pew Charitable Trusts, June 29, 2016.
- 23 The National Commission on Correctional Health Care recommends that all prison facilities maintain a formulary and an exception procedure that enables the use of nonformulary medications when medically appropriate. National Commission on Correctional Health Care, "Standards for Health Services in Prisons" (2014), 58, <http://orders.ncchc.org/core/store/product.aspx?prod=01tF0000002xiaKIAQ>.
- 24 Maine Corrections Pharmacy Focus Group, "Interim Report."
- 25 Ibid.
- 26 National Academy for State Health Policy, "States and the Rising Cost of Pharmaceuticals: A Call to Action" (2016): 1-26, <http://nashp.org/wp-content/uploads/2016/10/Rx-Paper.pdf>.
- 27 Rogers, interview.
- 28 Texas Department of Criminal Justice, Administrative Directive: Annual Health Care Services Fee for Offenders, Texas Government Code §§501.014, 501.063 (2012); and Pulvino, interview.
- 29 Wendy Sawyer, "The Steep Cost of Medical Co-pays in Prison Puts Health at Risk," Prison Policy Initiative, April 19, 2017, <https://www.prisonpolicy.org/blog/2017/04/19/copays/>; and Annette Hansen (senior business analyst, Utah Department of Corrections), pers. comm., July 5, 2017.
- 30 See, for example, State of Alaska, Department of Corrections, Health and Rehabilitation Services Charge Voucher, Policies & Procedures, No. 807.07, Dec. 22, 2016, <http://www.correct.state.ak.us/pnp/pdf/807.07.pdf>.
- 31 See, for example, Oklahoma Department of Corrections, Access to Health Care, OP-140117, May 16, 2017, <http://doc.ok.gov/Websites/doc/Images/Documents/Policy/op140117.pdf>.
- 32 The Utah Department of Corrections charges individuals with more than \$200,000 in assets the full cost of all medical and dental care, up to 20 percent of the individual's total assets.
- 33 Centers for Medicare & Medicaid Services, "Cost Sharing Out of Pocket Costs," accessed Oct. 18, 2016, <https://www.medicare.gov/medicaid/cost-sharing/out-of-pocket-costs/index.html>.
- 34 Vernon K. Smith et al., "Implementing Coverage and Payment Initiatives: Results From a 50-State Medicaid Budget Survey for State Fiscal Years 2016 and 2017," Kaiser Family Foundation (2016), <http://www.kff.org/medicaid/report/implementing-coverage-and-payment-initiatives-results-from-a-50-state-medicare-budget-survey-for-state-fiscal-years-2016-and-2017/>; and Vernon K. Smith et al., "Medicaid in an Era of Health & Delivery System Reform," Kaiser Family Foundation (2014), <https://kaiserfamilyfoundation.files.wordpress.com/2014/10/8639-medicare-in-an-era-of-health-delivery-system-reform3.pdf>.
- 35 New Jersey Department of Corrections, "New Jersey Inmate Handbook," accessed Aug. 12, 2017, <https://www.law.umich.edu/special/policyclearinghouse/Documents/New%20Jersey%20Inmate%20Handbook.pdf>.
- 36 North Dakota Department of Corrections and Rehabilitation, "Inmate Handbook," accessed July 3, 2017, [https://www.nd.gov/docr/adult/docs/INMATE\\_HANDBOOK.pdf](https://www.nd.gov/docr/adult/docs/INMATE_HANDBOOK.pdf).
- 37 Virginia Department of Corrections, "Co-payment for Health Care Services," Aug. 1, 2017, <https://vadoc.virginia.gov/about/procedures/documents/700/720-4.pdf>.
- 38 Marc Stern (former chief medical officer, Washington State Department of Corrections), pers. comm., June 30, 2017.
- 39 Centers for Disease Control and Prevention, "Methicillin-Resistant *Staphylococcus aureus* Infections in Correctional Facilities—Georgia, California, and Texas, 2001–2003," *Mortality and Morbidity Weekly* 52, no. 41 (2003): 992–96, <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5241a4.htm>.

- 40 Julie Hudman and Molly O'Malley, "Health Insurance Premiums and Cost-Sharing: Findings From the Research on Low-Income Populations," Kaiser Commission on Medicaid and the Uninsured (March 2003), <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/health-insurance-premiums-and-cost-sharing-findings-from-the-research-on-low-income-populations-policy-brief.pdf>; Leighton Ku, "Charging the Poor More for Health Care: Cost-Sharing in Medicaid," Center on Budget and Policy Priorities (May 7, 2003), <https://www.cbpp.org/archiveSite/5-7-03health.pdf>; Vernon K. Smith, Sandy Kramer, and Robin Rudowitz, "Managing Medicaid Pharmacy Benefits: Current Issues and Options," Kaiser Commission on Medicaid and the Uninsured (September 2011), <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/8234.pdf>; and Leighton Ku, "The Effect of Increased Cost-Sharing in Medicaid," Center on Budget and Policy Priorities (July 7, 2005), <https://www.cbpp.org/research/the-effect-of-increased-cost-sharing-in-medicaid>.
- 41 National Commission on Correctional Health Care, "Charging Inmates a Fee for Health Care Services," last modified October 2012, <http://www.ncchc.org/charging-inmates-a-fee-for-health-care-services>.
- 42 Sawyer, "The Steep Cost of Medical Co-pays."
- 43 National Commission on Correctional Health Care, "Charging Inmates a Fee."
- 44 State of Alabama, Department of Corrections, Administrative Regulation: Inmate Co-payment for Health Services, Reg. 703, June 2013, <http://www.doc.state.al.us/docs/AdminRegs/AR703.pdf>.
- 45 State of Louisiana, Department of Public Safety and Corrections, "Time in Prison: The Adult Institutions," accessed July 3, 2017, <http://web.archive.org/web/20070205093744/http://www.corrections.state.la.us/Whats%20NEw/PDFs/TimeInPrison.pdf>.
- 46 Oregon Department of Corrections, "Inmate Co-pays for Healthcare," accessed Aug. 12, 2017, <https://www.prisonpolicy.org/scans/Ore-IB-120-Co-Pay%20HS%20Issue%20Brief.pdf>.
- 47 Massachusetts Executive Office of Public Safety and Security, "Inmate Fees as a Source of Revenue: Review of Challenges," Report of the Special Commission to Study the Feasibility of Establishing Inmate Fees (July 1, 2011), <http://www.mass.gov/eopss/docs/eops/inmate-fee-final-7-1-11.pdf>.
- 48 Maruschak, Berzofsky, and Unangst, "Medical Problems."
- 49 Stephen Weiss, "Medical Care Provided in State Prisons—Study of the Costs," Joint Commission on Health Care (Oct. 5, 2016), <http://jchc.virginia.gov/4.%20Medical%20Care%20Provided%20in%20State%20Prisons%20CLR.pdf>.
- 50 State of Rhode Island, Department of Corrections, "Mental Health Services," accessed Aug. 2, 2017, [http://www.doc.ri.gov/rehabilitative/health/behavioral\\_mental.php](http://www.doc.ri.gov/rehabilitative/health/behavioral_mental.php).
- 51 Zyprexa (olanzapine) came off patent in October 2011. Seroquel (quetiapine) and Geodon (ziprasidone) came off patent in 2012. Abilify (aripiprazole) came off patent in 2015. Express Scripts, "Express Scripts 2015 Drug Trend Report" (March 2016), <https://lab.express-scripts.com/lab/-/media/e2c9d19240e94fcf893b706e13068750.ashx>.
- 52 Trey Fuller (chief pharmacist, Virginia Department of Corrections), pers. comm.
- 53 Binswanger, "Chronic Medical Diseases."
- 54 "Express Scripts Holding," *Fortune*, accessed Aug. 12, 2017, <http://fortune.com/fortune500/express-scripts-holding/>.
- 55 Express Scripts, "Express Scripts 2015 Drug Trend Report."
- 56 Centers for Medicare & Medicaid Services, "Behavioral Health Services," accessed Aug. 2, 2017, <https://www.medicare.gov/medicaid/benefits/bhs/index.html>; and Maruschak, Berzofsky, and Unangst, "Medical Problems."
- 57 American Diabetes Association, "Statistics About Diabetes," accessed Oct. 31, 2017, <http://www.diabetes.org/diabetes-basics/statistics/>.
- 58 Beckman et al., "New Hepatitis C Drugs."
- 59 Hemophilia Federation of America, "What is Hemophilia?" accessed Aug. 12, 2017, <http://www.hemophiliafed.org/bleeding-disorders/hemophilia/>.
- 60 Angela Lambing et al., "Factor for Felons: How Can We Provide Haemophilia Care to the Incarcerated?" *Haemophilia* 21, no. 6 (2015): 772-77, doi:10.1111/hae.12711.
- 61 Sheh-Li Chen, "Economic Costs of Hemophilia and the Impact of Prophylactic Treatment on Patient Management," *American Journal of Managed Care* 22, no. 5, Suppl. (2015): s126-33.
- 62 Justice and Health Connect, "Two Model Practices for Correctional Healthcare" (June 2013), [http://www.jhconnect.org/wp-content/uploads/2013/06/Trestman-formatted.DC\\_.pdf](http://www.jhconnect.org/wp-content/uploads/2013/06/Trestman-formatted.DC_.pdf).
- 63 Deloise Williams (assistant division director for health services, Missouri Department of Corrections), interview with The Pew Charitable Trusts, Sept. 16, 2016.

- 64 Gage, interview.
- 65 Medicaid is barred by the Social Security Act from paying for any inmate care except for eligible overnight off-site hospitalizations. See Social Security Act, §1905.
- 66 Ingrid A. Binswanger et al., "Release From Prison: A High Risk of Death for Former Inmates," *New England Journal of Medicine* 356, no. 2 (2007): 157–65, doi:10.1056/NEJMsa064115; and Anne C. Spaulding et al., "Prisoner Survival Inside and Outside of the Institution: Implications for Health-Care Planning," *American Journal of Epidemiology* 173, no. 5 (2011): 479–87, doi:10.1093/aje/kwq422.
- 67 Niraj Sehgal, "Handoffs and Transitions: Annual Perspective 2014," Agency for Healthcare Research and Quality (March 2015), <https://psnet.ahrq.gov/perspectives/perspective/170>.
- 68 Kamala Mallik-Kane and Christy A. Visher, "Health and Prisoner Reentry: How Physical, Mental, and Substance Abuse Conditions Shape the Process of Reintegration," Urban Institute Justice Policy Center (February 2008), <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/411617-Health-and-Prisoner-Reentry.pdf>.
- 69 Gage, interview.
- 70 Williams, interview.



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