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Prison Health Care: Costs and Quality

How and why states strive for high-performing systems

Contents

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Overview

Prison health care sits at the intersection of pressing state priorities. From protecting public safety to fighting disease and promoting physical and behavioral health, and from fine-tuning budgets that trim waste to investing in cost-effective programming with long-term payoffs, the health care that prisons provide to incarcerated individuals and the care that prisons facilitate post-release is a critical linchpin with far-reaching implications.

On a typical day, state prisons house more than a million people, many of whom have extensive and communicable health ailments. The manner in which services are provided affects state budgets because of the expensive treatments for some common conditions, the downstream costs of delayed or inadequate care, and the legal and financial consequences of being found to violate inmates' constitutional rights to "reasonably adequate" care. Moreover, with nearly all incarcerated individuals eventually returning to society, treatment and discharge planning—especially for those with a substance use disorder, mental illness, or infectious disease—play an important role in statewide anti-recidivism and public health efforts. Taken together, these realities call for the attention of policymakers and administrators.

Yet these officials often lack the information they require to build and maintain high-performing prison health care systems that proactively make the most of diagnostic and treatment opportunities and avert the harmful and expensive consequences of inattention or missteps. They need to know how much money is being spent on what services and why; what benefits are achieved for those dollars; and whether these benefits are preserved post-prison through well-coordinated prison-to-community transitions.

This first-of-its-kind report, using data collected from two 50-state surveys administered by The Pew Charitable Trusts and the Vera Institute of Justice, along with interviews with more than 75 state officials, updates previous Pew research on spending trends in prison health care. The report also incorporates information on the operational characteristics of states' prison health care systems; whether and how states monitor the quality of care provided—the critical counterpart to cost when assessing value; and common care continuity strategies for people leaving prison. The aim is to begin to paint a comprehensive picture for policymakers, administrators, and other stakeholders of how states fund and deliver prison health care, how they compare with one another, and some reasons for differences. These stakeholders can use such practical information and insights to help optimize policies and programs in the service of incarcerated individuals, state residents, and taxpayers.

The first of the two surveys, for which every state except New Hampshire provided data, queried senior budget staff of state departments of correction on expenditures, prison population demographics, the health care delivery system employed, and staffing. The second survey, for which every state except Alabama, Kansas, and New Hampshire provided data, collected information from senior health care staff of departments of correction on efforts to monitor the quality of care provided, disease prevalence tracking, and services to facilitate care continuity at release.

Pew's research found:

- Departments of correction collectively spent $8.1 billion on prison health care services for incarcerated individuals in fiscal year 2015—probably about a fifth of overall prison expenditures.
- Health care spending per inmate varied dramatically in fiscal 2015, as it had in past years—from $2,173 in Louisiana to $19,796 in California. State officials across the country need to understand whether and how these differences reflect meaningful discrepancies in value and performance. This knowledge helps states determine if their prison health care systems assist or undermine their efforts to achieve universal goals: meeting constitutional obligations, protecting public safety, strengthening public health, and practicing fiscal prudence.

- Knowing how money is spent, and how the spending distribution has changed over time, is critical to understanding interstate spending variation and evaluating cost-effectiveness. But with few exceptions, state data systems preclude detailed, actionable analysis. Reporting limitations were most common among states that primarily or wholly outsource their prison health care delivery.
- States reported dramatically different approaches to staffing by departments of correction and their vendor and university partners in fiscal 2015. Not surprisingly, staffing levels appear to correlate with per-inmate prison health care expenditures: Median per-inmate spending was more than double among the 10 states with the highest staffing levels than among the 10 states with the lowest levels.
- Along with how money is spent, knowing whom it is spent on is important to understanding costs. Treating chronic conditions has emerged as a growing challenge and expense in state prisons, exacerbated by an aging prison population. From fiscal 2010 to 2015, the share of older individuals in prison rose in all 44 states that submitted prisoner age data to Pew and Vera.
- The quality of care that prisons provide has a major impact on their contribution to the achievement of state goals. Assessing the value that taxpayers get for their prison health care dollars—that is, whether desired outcomes are achieved at sustainable costs—and how that value compares with other states requires quality measurement and monitoring. Thirty-five states reported that they operated a prison health care quality monitoring system in fiscal 2016. These systems took different shapes but shared four key characteristics: They were grounded in data; established and overseen by state agencies; applied broadly and consistently across facilities; and operated on an ongoing basis. However, of these 35 states, only Florida, Nebraska, Nevada, New Jersey, New York, and Texas indicated that they take additional steps to formally require quality monitoring and build in regular opportunities to incorporate the findings into decision-making and legislative oversight, which can clarify priorities, bolster consistency amid personnel changes, and help ensure that objectives are met.
- Respondents from all except four of the 12 states without a quality monitoring system agreed or strongly agreed that establishing such a system is necessary to achieve at least an adequate level of quality. A majority also agreed or strongly agreed that this step would improve the quality of care provided in their system as well as their state's understanding of the value of its prison health care spending.
- State departments of correction increasingly recognize the benefits and importance of facilitating care continuity for individuals returning to the community. These departments take a variety of steps, often in partnership with other state agencies, to smooth re-entry from a health care standpoint and preserve positive outcomes from in-prison investments. These efforts include helping individuals acquire health coverage, maintain medication regimens, identify and connect with outside providers, share health records, and learn about safely managing their disease(s). Many states reported providing the bulk of surveyed services, though some pointed to relatively few.

Well-run, forward-thinking prison health care systems are vital to state aims of providing care to incarcerated individuals, protecting communities, strengthening public health, and spending money wisely. Likewise, poorly performing systems threaten to make states less safe, less healthy, and less fiscally prudent. Put simply: The stakes extend far beyond the confines of prison gates.

Prison Health Care Is Integral to Achieving State Goals

The last five decades have been transformational for prison health care. Dramatic advancements in the professionalization and sophistication of care provided generally brought care for prisoners into closer alignment and integration with health care provided in the community. Litigation largely drove these improvements. Incarcerated individuals and advocates began challenging substandard conditions, and courts responded by defining legal rights and establishing minimum standards and accountability.

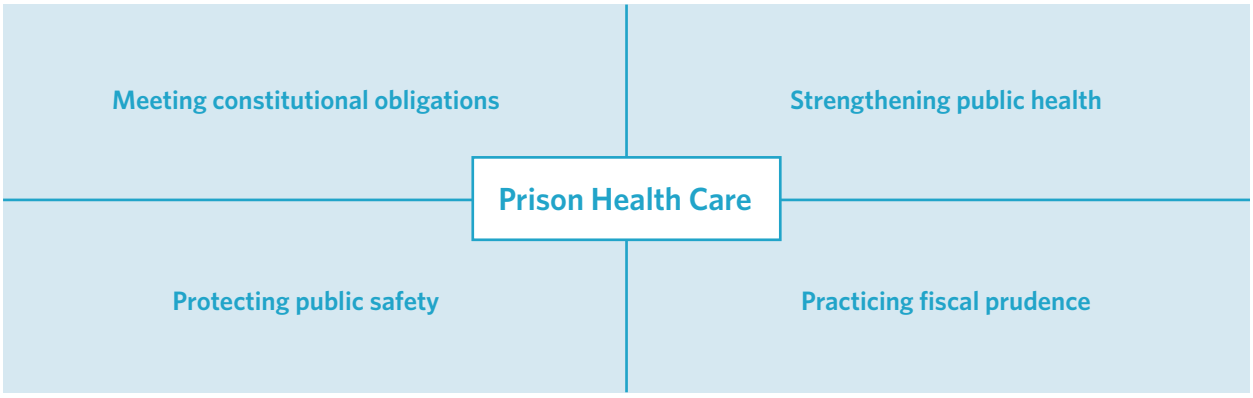
At the same time, correctional facilities increasingly became a setting in which individuals with serious health conditions—especially infectious diseases, substance use disorders, and mental illnesses—were diagnosed and treated. This was largely driven by the dual forces of the national war on drugs, which led to significant increases in the number of persons convicted for drug offenses, and the closing of mental hospitals as part of deinstitutionalization efforts.[1] In addition to the sheer growth of prison populations,[2] this deteriorating inmate health profile increased the demands on prison health care systems. But it also created occasion for policymakers to incorporate these systems into statewide public health and public safety strategies because nearly all[3] of those in prisons eventually return to their communities.

> "Public safety is public health; public health is public safety."
>
> Richard H. Carmona, *U.S. surgeon general, 2002-2006*

Today, every state has an interest in delivering care that comports with constitutional requirements and leverages opportunities to improve public health and reduce crime and recidivism. But executing this mission can come at a steep cost. Indeed, states spent $8.1 billion on prison health care in fiscal 2015—probably about a fifth[4] of overall prison expenditures. (See Appendix C: Table C.1.) Such spending has grown rapidly over the last five decades,[5] and continued to do so more recently,[6] increasing the footprint of health care in overall prison budgets.[7] Therefore, it is critical that policymakers and correctional officials endeavor to achieve these objectives in a cost-effective fashion. (See Figure 1.)

Figure 1

Universal State Interests



Meet constitutional requirements

Before the 1970s, prison health care operated without what Justice Thurgood Marshall termed "standards of decency"[8] and was frequently delivered by unqualified or overwhelmed providers, resulting in negligence and poor quality.[9] These conditions led to a stream of lawsuits. By January 1996, only three states had never been involved in major litigation challenging conditions in their prisons. A majority were under court order or consent decree to make improvements in some or all facilities.[10]

A series of federal court decisions established a legal basis under which state correctional authorities are constitutionally obligated by the Eighth Amendment to provide prisoners with "reasonably adequate" health care.[11] Today, care must be at "a level reasonably commensurate with modern medical science and of a quality acceptable within prudent professional standards"[12] and "designed to meet routine and emergency medical, dental, and psychological or psychiatric care."[13] Specifically, prisoners are entitled to access to care for diagnosis and treatment, a professional medical opinion, and administration of the prescribed treatment.[14]

States' obligation and liability persist even if they use contractors to provide some or all medical services.[15] The Supreme Court has ruled that "contracting out prison medical care does not relieve the State of its constitutional duty to provide adequate medical treatment to those in its custody."[16] The same is true when state prisoners are under the custody of private prisons or local jails.[17]

Recent cases have reinforced states' constitutional obligations. In Brown v. Plata, California was ordered to reduce crowding because of the associated effect on the adequacy of health care. A federal court found that, as of 2005, the state's medical delivery system resulted in an "unconscionable degree of suffering and death" and that it was "an uncontested fact that, on average, an inmate in one of California's prisons needlessly dies every six to seven days due to constitutional deficiencies."[18] And in February 2015, in a class-action suit on behalf of more than 33,000 individuals in Arizona's state prisons, a federal court approved a settlement requiring the state to address deficiencies in its system and pay $4.9 million in attorneys' fees and up to $250,000 per year for future monitoring fees and expenses.[19]

Strengthen public health

Every state strives to protect and advance the well-being of its residents. Improving health and wellness within its borders, in part by freeing communities of preventable illness, is an important part of that mission, according to the Association of State and Territorial Health Officials, the voice of all 50 states' health chiefs.[20] States aim to prevent and control the spread of infectious diseases by rapidly identifying and addressing new cases of infection, supporting disease elimination, and thwarting emerging and re-emerging threats.

There are high rates of infectious disease among those in state prisons, and the vast majority of these individuals will eventually return to their communities. Prisons also receive a continuous flow of staff and visitors in and out of their facilities. These circumstances make the health care that the prison population receives a critical component of states' public health strategies. According to the federal Bureau of Justice Statistics, 20 percent of state and federal prisoners report ever having an infectious disease, compared with 5 percent of the general population.[21] Prevalent conditions include sexually transmitted diseases,[22] human immunodeficiency virus (HIV),[23] and hepatitis C.[24]

While these high prevalence rates and the close confines of prisons present a challenge, they also offer a public health opportunity on which states can capitalize by screening, diagnosing, and treating these communicable conditions among a group that is frequently hard to reach in the community. "Public safety is public health; public

health is public safety," according to former U.S. Surgeon General Richard H. Carmona.[25] Similarly, the World Health Organization (WHO) has said that "good prison health is essential to good public health" and "good public health will make good use of the opportunities presented by prisons."[26]

The positive and negative spillover effects of correctional health care on communities, depending on the nature and quality of the care, have been substantiated by a growing body of evidence. Management of tuberculosis (TB) provides an example of the positive role correctional health care can play. Because the incarcerated population is at an elevated risk for TB,[27] the Centers for Disease Control and Prevention—and before it, the Advisory Council for the Elimination of Tuberculosis—identified correctional facilities as a critical setting for detection and treatment.[28] Actions by correctional staff to screen, contain, monitor, and collaborate with public health partners paid off. The number of TB cases in correctional facilities fell by 66 percent from 1994 to 2014,[29] helping the U.S. rate hit a 40-year low the same year.[30]

Protect public safety and reduce recidivism

Among the metrics by which prison systems are evaluated—and often explicitly judge themselves—is their effectiveness at promoting public safety and reducing recidivism. The Ohio Department of Rehabilitation & Correction, for example, succinctly articulates a single mission: "Reduce recidivism among those we touch." Its director, Gary Mohr, says this is not simply done for its own sake, but also to "continue making Ohio communities safer."[31] Ohio's goal is not unique. The vision of the Minnesota Department of Corrections, for example, is to "contribute to a safer Minnesota," and its mission is to "reduce recidivism."[32] The Georgia Department of Corrections aims to protect the public "by operating secure and safe facilities while reducing recidivism through effective programming, education, and healthcare."[33]

Nevertheless, recidivism remains a persistent challenge. Two seminal Bureau of Justice Statistics studies of state prisoners released in 1983 and 1994 estimated that half of released individuals return to prison within three years.[34] More recent research by the bureau[35] and Pew[36] came to similar conclusions, suggesting that states overall had not made progress.

Emerging research suggests that underlying health issues, particularly substance use disorders[37] and mental illness,[38] contribute to incarceration and recidivism, and that treatment,[39] combined with seamless care continuity for individuals when they return to communities, can help prevent both. Given their high prevalence, behavioral health conditions in correctional facilities[40] have increasingly become a focal point for intervention.

For example, drug addiction treatments, combined with uninterrupted care continuity, have been found to be effective in controlling substance use disorders and reducing recidivism.[41] Notable models include therapeutic communities and opioid maintenance treatment (such as methadone maintenance). Participants in therapeutic communities are typically housed together and, under the supervision and monitoring of staff, engage in running the community by leading treatment sessions, monitoring rule compliance, maintaining the unit, and resolving disputes.[42]

The stakes for success are high because recidivism comes at great public safety and fiscal cost. By successfully incorporating health care into anti-recidivism strategies, states increase the likelihood that they and their corrections agencies will meet their crime-reduction objectives. Moreover, because of the significant expense associated with imprisoning individuals, states also stand to save money by reducing recidivism. For example, previous Pew research found that if states reduced their recidivism rates by 10 percent, the collective savings from averted prison costs would be in the hundreds of millions of dollars annually.[43]

Practice fiscal prudence

Operating high-performing prison health care systems that meet constitutional obligations and make the most of opportunities to improve public health and public safety is in every state's interest. However, doing so can be costly, and all states operate with finite resources. Even as they have regained much of the fiscal and economic ground lost in the Great Recession, a number of states have yet to get back to full strength and continue to face long-term financial pressures, leaving little or no wiggle room in budgets.[44] The importance of using taxpayer dollars prudently has never been greater. Therefore, states need fiscally sound, sustainable systems that yield positive outcomes.

The pull of these two opposing dynamics—improving results while containing costs—has been the central tension within prison health care for decades.[45] The only way for policymakers and correctional administrators to satisfy both is to continually appraise the value of their systems; that is, whether their states are achieving desired outcomes at sustainable costs. To do that, officials need to rigorously collect and analyze detailed, actionable spending and quality data, use the information to identify strengths and weaknesses, and make refinements. At the same time, they also need to facilitate seamless post-release care continuity to help ensure that the benefits of care and the resources devoted to stabilizing individuals' health while they are incarcerated are preserved and not squandered upon release. Otherwise, these funds will be spent again and again when inmates cycle back through the prison system or turn up in emergency rooms.

Common Ends, Varied Means

Although all 50 states share these interests—constitutional compliance, public health, public safety, and fiscal prudence—the provision of state prison health care throughout the country varies significantly. There is no starker evidence of this variation than the wide range in per-inmate expenditures among states. In fiscal 2015, the California Department of Corrections and Rehabilitation spent $19,796 per inmate on health care. Two thousand miles to the east, its counterpart in Louisiana spent $2,173. And such divergences are not exclusive to outliers. (See Figure 2.)

What drives these dramatic differences? To what extent do they reflect meaningful discrepancies in value and performance that move some states closer to reaching their common ends, while pushing others further away? The answers to these questions carry critical importance to any assessment of whether states are doing all they can to protect their communities, strengthen public health, and spend money wisely.

Persistent per-inmate spending variation

According to data submitted to Pew and Vera, in fiscal 2015 the typical state department of corrections spent $5,720 per inmate to provide health care services including medical, dental, mental health, and substance use treatment. However, departments in four states (California, New Mexico, Vermont, and Wyoming) spent more than $10,000 per inmate, while five (Alabama, Indiana, Louisiana, Nevada, and South Carolina) spent less than $3,500 per inmate.[46] This ordering tracked closely with what states reported for prior years of the study period (fiscal 2010 to 2015).

The breadth of this variation continues a decades-long trend. The Bureau of Justice Statistics (BJS) found a roughly sixfold range in per-inmate medical spending in both fiscal 1996 and fiscal 2001.[47]

Comparing inflation-adjusted[48] per-inmate health care spending changes over time shows similar variation.[49] Most recently, from fiscal 2010 to 2015, real per-inmate spending rose by a median of 2 percent. But state departments of correction had quite different experiences. (See Figure 2.) Per-inmate expenditures shrank in Ohio and West Virginia by 27 percent and 25 percent, respectively. On the other end of the spectrum, spending expanded[50] in Tennessee (22 percent) and California (25 percent) over the five years.

Definition of Prison Health Care Spending

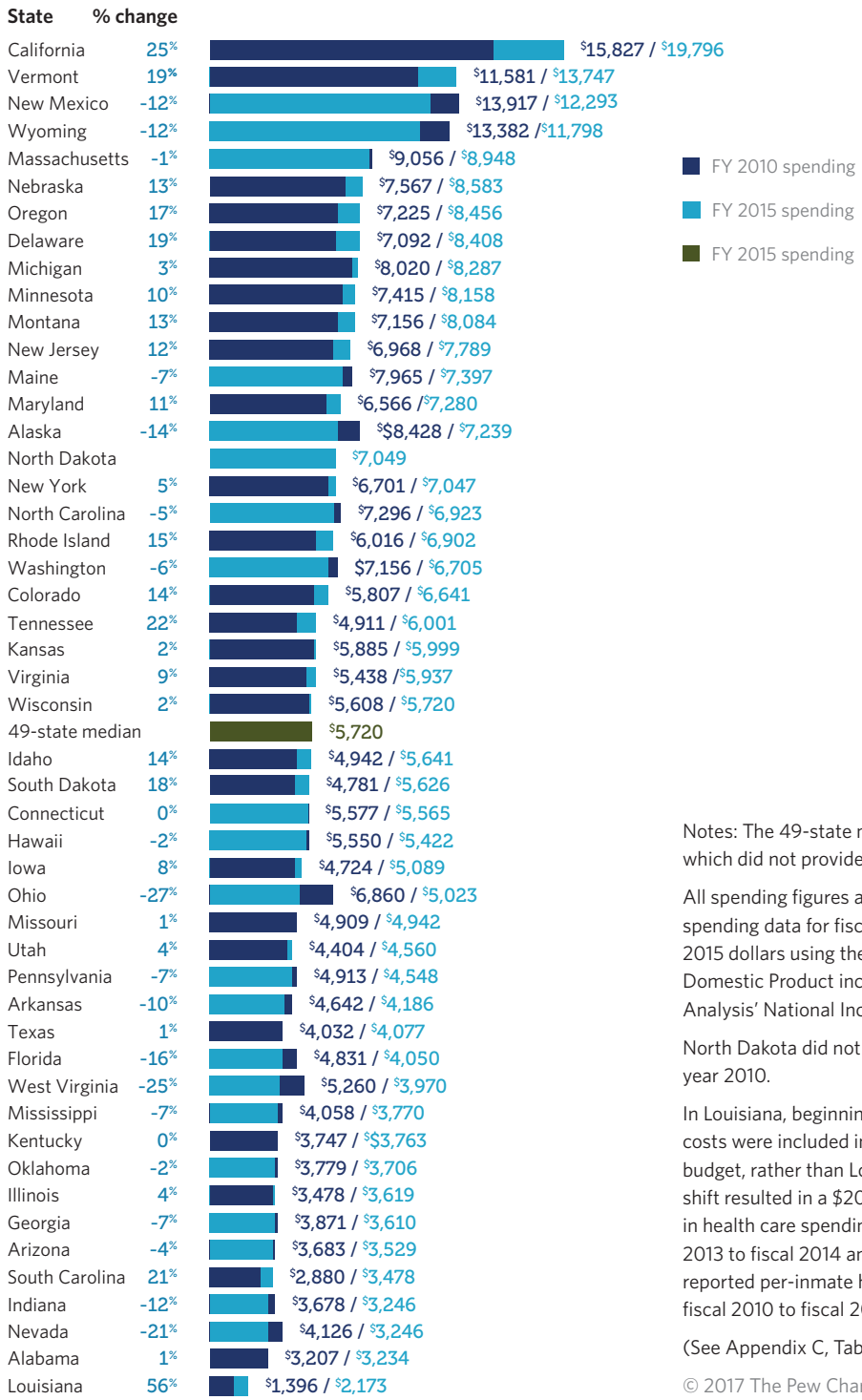
Following the example of the system used by the Centers for Medicare & Medicaid Services to measure national health care spending, Pew and Vera defined prison health care spending as inclusive of on-site care, off-site care, outpatient medical products, long-term care, other health, residential, and personal care, and other expenditures funded by state revenue and federal transfers. (See Appendix A: Methodology for a complete listing of categories.)

Though there was broad overlap in the scope of services funded by state departments of correction (DOCs), some inconsistency in funding responsibility contributed to state-by-state spending differences. For example, in some states, Medicaid agencies pay for the cost of hospitalizations for enrolled individuals without reimbursement from the DOC. In others, state mental health agencies cover some of the cost of treatment under their purview. While some survey respondents provided information on such spending, many could not or did not.

Figure 2

Per-Inmate Spending on Prison Health Care Varied Greatly

Magnitude and change by state, FY 2010-15



Notes: The 49-state median excludes New Hampshire, which did not provide data.

All spending figures are in 2015 dollars. Nominal spending data for fiscal 2010–15 were converted to 2015 dollars using the Implicit Price Deflator for Gross Domestic Product included in the Bureau of Economic Analysis' National Income and Product Accounts.

North Dakota did not report spending data for fiscal year 2010.

In Louisiana, beginning in fiscal 2014, off-site medical costs were included in the Department of Correction's budget, rather than Louisiana State University's. This shift resulted in a $20 million (44 percent) increase in health care spending by the department from fiscal 2013 to fiscal 2014 and contributed to the department's reported per-inmate health care spending increase from fiscal 2010 to fiscal 2015.

(See Appendix C, Table C.3 for state data.)

Variation drivers

The Bureau of Justice Statistics points to several factors that possibly contribute to state-to-state spending differences, including pre-incarceration access to adequate community care, regional medical prices, staffing and compensation levels, facility capacity and related economies of scale, and incidences of high-risk behaviors and associated disease burdens.[51]

Other researchers have examined some of these and additional factors. A National Institute of Corrections study modeled the effect of numerous variables, including staffing levels, whether and how state corrections departments and the Federal Bureau of Prisons engaged with contractors to deliver care, the provision of certain screening procedures on a routine basis, the prevalence of particular high-cost populations (for instance, inmates age 55 and over), and certain cost-containment strategies (such as requiring copayments to discourage potentially unnecessary doctor visits).[52]

The model, which explained 60 percent of the documented spending variation, calculated some of the most influential variables to be staffing totals of mid-level practitioners (physician assistants and nurse practitioners); whether HIV screening is routinely provided during intake, thereby increasing the probability of identifying and treating infected individuals; and the use of contractors on a capitated basis—or per-person fixed-rate contracts—to conduct intake exams, examine sick individuals, and provide treatment for chronic illnesses. The first two variables were correlated with higher spending, the last one with lower spending.

No accounting for quality

Crucially, the National Institute of Corrections study omitted two variables critical to any complete evaluation of per-inmate spending: access to care and quality of care. That is, the model did not account for variation in either, treating them as equal in every state. This is probably because of the lack of uniform quality-of-care standards and reporting for correctional systems and facilities, which would permit more complete comparisons across states and facilities.[53]

The United Nations High Commissioner for Human Rights[54] and the World Health Organization[55] have each promulgated guidelines for prisoner health care, but they are not widely recognized or followed in the United States in an explicit fashion. Standards have also been developed by, among others, the American Public Health Association,[56] the American Medical Association,[57] and, more recently, by the American Bar Association,[58] American Correctional Association,[59] and the National Commission on Correctional Health Care.[60] Hundreds of state facilities have adopted them from the latter two and received accreditation. Still, little has been known systematically about whether and how states measure and monitor quality in their prison health care systems.[61] Even less is known about actual outcomes.

Despite the absence of such information, differences in per-inmate expenditures probably reflect, in part, differing levels of care provided.[62]

Delivery Systems and Reasons for Spending Variation

The next segment of this report explores new data on key attributes of states' prison health care systems. The data were collected through two 50-state surveys of corrections departments administered by The Pew Charitable Trusts and the Vera Institute of Justice. Every state except Alabama, Kansas, and New Hampshire responded to both surveys. (See Appendix A: Methodology.) Characteristics examined include:

- States' prison health care delivery systems. While these do not necessarily influence the effectiveness of prison health care systems, they fundamentally govern paths to performance measurement and improvement.
- Several factors behind interstate spending variation, such as how money is spent, prices prisons pay, whom prisons treat, and the quality of care provided.

Accounting for these sources of variation helps provide comparable information that can be used to better understand how and why state per-inmate prison health care spending differs and to map out avenues for any necessary changes. This analysis does not capture an exhaustive set of cost drivers or cost containers. Rather, it seeks to highlight and provide some of the main information officials need about what is spent, how money is spent, on whom it is spent, and what outcomes are achieved for those dollars.

Importantly, higher spending is not necessarily an indication of either waste or good quality care; likewise, lower spending is not necessarily a sign of efficiency or poor quality. Instead, weighing all of these factors and others, policymakers must seek to continually appraise the value their systems achieve. That is, they must determine whether their systems are cost-effectively and sustainably delivering care that abides by constitutional requirements and makes the most of opportunities to improve public health and reduce crime and recidivism.

In some cases, especially with respect to spending distributions and the results of quality monitoring, states are without the information necessary to appropriately understand what they are getting for their prison health care dollars or have not taken important steps to cement their processes and act upon the data. Moreover, much of what does exist lacks the level of uniformity and standardization necessary to appropriately make state-to-state comparisons.

Delivery system organizational structure

One fundamental difference in the systems states use to deliver health care in prisons pertains to whether the provision of on-site care is primarily the charge of state-employed clinicians and staff, or whether those responsibilities are outsourced. Most states operate not exclusively on one pole or the other, but rather on a continuum between the two.

In 17 states, the majority of health care services were directly provided by department of corrections staff in fiscal 2015. (See Table 1.) These states frequently looked to contractors to provide some care at a handful of facilities or for discrete services, especially mental health treatment and pharmacy management, but the bulk of care was managed and provided by the state.

On the other side of the spectrum, 20 states contracted out most health care service delivery. The scope of services provided differs across three primary dimensions: (1) whether individual contractors provide one or more specific clinical services or a comprehensive set; (2) whether they only provide clinical services or also take on managerial functions; and (3) whether they provide services in one, several, or all prisons in a state.[63]

In eight hybrid states (Colorado, Louisiana, Michigan, Minnesota, Montana, Pennsylvania, Rhode Island, and Virginia), care was provided by a roughly even mix of state employees and contracted vendors. Hybrid states typically blend their delivery system model within facilities—with some clinicians working directly for the department of corrections and others working for the contractor—but Virginia differentiates by facility.

Finally, four states (Connecticut, Georgia, New Jersey, and Texas) pair their corrections department with a state medical school or affiliated organization.

Table 1

Delivery System Organizational Structures Vary

Delivery systems, fiscal 2015

Delivery System	States	Number of States
Direct-provision	AK, CA, HI, IA, NC, ND, NE, NV, NY, OH, OK, OR, SC, SD, UT, WA, WI	17 states
Contracted-provision	AL, AZ, AR, DE, FL, ID, IL, IN, KS, KY, MA, MD, ME, MO, MS, NM, TN, VT, WV, WY	20 states
Hybrid	CO, LA, MI, MN, MT, PA, RI, VA	8 states
State university	CT, GA, NJ, TX	4 states

Note: New Hampshire did not provide data.

Evolution and trade-offs of outsourcing

Until the late 1970s, every state provided prison health care directly. Pivotal court decisions that ordered that health care deficiencies be remedied caused many states to turn to contractors to swiftly improve their systems.[64] Many needed to quickly recruit greater numbers of qualified staff, as physicians, nurses, and other professionals were frequently in short supply, especially in the rural locations of many facilities.[65] While few states are under pressure to move so rapidly today, staff recruitment and retention challenges remain a widespread motivation for outsourcing. Many states that rely heavily on private vendors reported to Pew and Vera that adequate numbers of mental health providers and nurses are particularly hard to attract. Vendors have an easier time attracting workers with specific skills and experience in some places, respondents said, because of greater employment and compensation flexibility.

Balancing trade-offs of outsourcing

States balance several factors—not all of which are covered in this report—when deciding whether to provide care directly or to utilize contractors to deliver some or all services. On the one hand, contracting transfers some control to vendors, even while states retain accountability for fulfilling their core responsibilities and interests. As Rodney Ballard, former commissioner of the Kentucky Department of Corrections, said, "States cannot privatize or outsource their responsibility."[66] Associated risks can be compounded if cost-saving incentives are not balanced by agreements that clearly specify performance expectations, incorporate incentives for quality, and provide for rigorous oversight and performance-improvement procedures.[67]

On the other hand, outsourcing offers the possibility of upgrading a state's system. It can also free correctional administrators from day-to-day pressures, affording them more time to scrutinize the results of their systems,[68] and potentially opens up access to specialized skills and expertise, as well as economies of scale. Finally, depending on the parameters of states' payment models, contracting out can allow for greater budget predictability and financial risk sharing.

Contractual payment models

The way in which payments are tied to care affects several elements of prison health care system management. Like other areas of health care financing, including federal-state Medicaid programs for low-income and other vulnerable populations, payment models broadly break down into either "cost-plus"—similar to fee-for-service arrangements—or capitation. Contracts built on a cost-plus approach pass through each expense from the vendor to the state, plus an additional charge for arranging and managing care. In contrast, capitation-based contracts establish a fixed per-person payment that vendors receive for all individuals under their care. This was the most prevalent model in fiscal 2015, with all but nine (Alabama, Colorado, Louisiana, Maine, Michigan, Montana, Pennsylvania, Rhode Island, and West Virginia) of the 28 contracted-provision or hybrid states employing this approach. Montana and Pennsylvania reported using a cost-plus model and the rest of the nine states indicated that theirs did not fall neatly into either of the two buckets. (See Appendix C, Table C.5.)

States weighing the trade-offs of the two models consider several interrelated factors: how to assign the financial risk associated with utilization; how to arrive at suitable levels of spending predictability and transparency; and how to incentivize quality and efficiency. (See Table 2.)

In their purest form, cost-plus contracts place all financial risk and reward on the state. That is, the state is the primary beneficiary of cost savings when inmates collectively utilize fewer or less expensive services than budgeted. Likewise, the reverse is also true. Capitated models shift the financial risk and reward exposure to contractors. If spending collectively amounts to less than the sum of capitated payments, contractors profit. But they are also at risk of financial losses if spending exceeds projections.

Some states take steps to blend these approaches and share risk and rewards with vendors. For example, Michigan, which employs nurses and dentists directly and contracts with a private vendor for doctors, psychiatrists, and other positions, starts from a base capitated rate for the care provided by the latter. In cases where the vendor's actual costs—including its management fee—for certain services are lower or higher than the base rate, the difference was divided between the contractor and the state in fiscal 2015.[69] This division follows a formula that caps the state's exposure to cost overruns. Off-site hospitalizations are a common domain for risk sharing, in large part because of their potential to generate substantial expenses.

Alongside financial exposure is spending predictability and transparency. By using a pure capitated approach, states are closed off from potential savings and overages, but have a relatively clear picture of what their total spending will be, absent unexpected fluctuations in the prison population. However, because capitated payments encompass a basket of health care services (such as on-site tests, primary care visits, and medication), states may sacrifice some access to underlying, disaggregated cost data unless they require the contractor to provide it or statistics on individuals' use of services. This opacity can be mitigated during the procurement process if states require bidders to detail and report the cost of providing certain services.[70] Cost-plus payments can make spending more transparent, though also leaving states more open to financial risk and reward, and may make spending projections somewhat more challenging.

Finally, states must consider the incentives created by the two payment models with respect to care delivery. Because cost-plus systems pay contractors based on the volume of care provided, and not on the outcomes achieved, they can inadvertently incentivize excessive use of low-value services.[71] Capitated payment models create a different incentive structure by placing a greater premium on economizing. Whichever model is used, states must be vigilant in their oversight to ensure that savings are not the result of poor or inadequate care, running the risk of producing adverse long-term outcomes.

Table 2

Contract Payment Model Decisions Balance Several Factors

Cost-Plus	Factors	Capitation
More state exposure	Financial risk/reward	Less state exposure
Less predictable	Spending predictability	More predictable
More transparent	Spending transparency	Less transparent
Less incentive	Incentivized economizing	More incentive
Necessary	Quality monitoring/oversight	Necessary

Delivery systems dictate available policy levers

All states seek to build and maintain high-performing prison health care systems that help fulfill core interests: constitutional compliance, protecting public safety, strengthening public health, and practicing fiscal prudence. The design of their delivery systems—whether they keep the management and provision of care largely in-house or outsource it—does not alter that common aim. To date, no systematic evaluations have definitively concluded which approach is most cost-effective. A primary reason for this is the lack of comparable measures of prison health care outcomes, and of service quality generally.[72]

> States cannot privatize or outsource their responsibility."
>
> **Rodney Ballard,** *former commissioner, Kentucky Department of Corrections*

What is clearer is that the design of delivery systems has an important effect on the policy levers available in the service of meeting objectives. For example, in states where the corrections department directly provides a majority of services, the onus to establish care protocols, retain a staff with sufficient capacity and expertise, and design rigorous systems for monitoring cost and quality falls squarely on state administrators and policymakers. On the other hand, states that contract out a greater portion of their system need to take different steps to facilitate effective decision-making, oversight, and performance improvement, including crafting contracts that balance cost and quality incentives by pairing payment models with specific requirements, and vigilantly monitoring and enforcing them.

Custody Arrangements

Nearly nine in 10 inmates under the legal authority of state departments of correction in fiscal 2015 were housed in state-run prisons. The operation of these facilities, including health care, is directly managed by state officials and carried out by a mix of state employees and private vendors.

A majority of states also put some of their incarcerated population under the physical custody of privately owned and operated institutions or local jails. Private prisons are for-profit entities that manage all correctional functions. Jails primarily contain people awaiting trial and those convicted of misdemeanors who are serving sentences of less than one year.

State decisions about when and how best to make use of these alternative settings result from a number of considerations, including cost and space. States retain legal liability for health care provided to those under their jurisdiction, even when the services are provided outside state-run facilities. States lose some direct control and influence over the care that is provided—though they can seek to track performance against established quality requirements—and typically have less access to detailed cost and spending data, as health care costs are subsumed into correctional per diem payment totals.

How states spend their prison health care dollars

Spending distributions must be examined to understand variation in per-inmate expenditure totals and trends, as well as to evaluate the cost-effectiveness of care. In addition to information on deployed resources, the nature and extent of care needs, how resources and needs are matched, and the outcomes achieved, policymakers and prison health care administrators must know the cost of services in order to successfully manage their systems.[73]

Beyond top-line spending data, officials benefit from actionable, disaggregated accounting of how money is spent and how that apportionment has shifted over time. As with any budget area, the collection and analysis of such material support vital management activities, such as identifying and tracking cost drivers and evaluating the results of cost-containment strategies and other policy decisions.

To gain greater insight into this breakdown on a 50-state basis, Pew and Vera asked respondents to separate their total spending into 22 line items, modeled after those used by the Centers for Medicare & Medicaid Services to examine and report national health care expenditures writ large. These categories fell into six distinct classifications: on-site care; off-site care; outpatient medical products; long-term care; other health, residential, and personal care; and other expenditures. (See Figure 3.)

Building on what previous Pew research found, many states continue to report having a limited ability to dig deep into their spending data. No state submitted data for all 22 categories requested. Thirty-three states said they were unable to provide data across the categories, with a majority of them citing as barriers systems that do not allow for parsing spending in this fashion or a lack of access to detailed spending records from contractors. Nine states did not clearly indicate whether they could disaggregate expenditures as outlined.

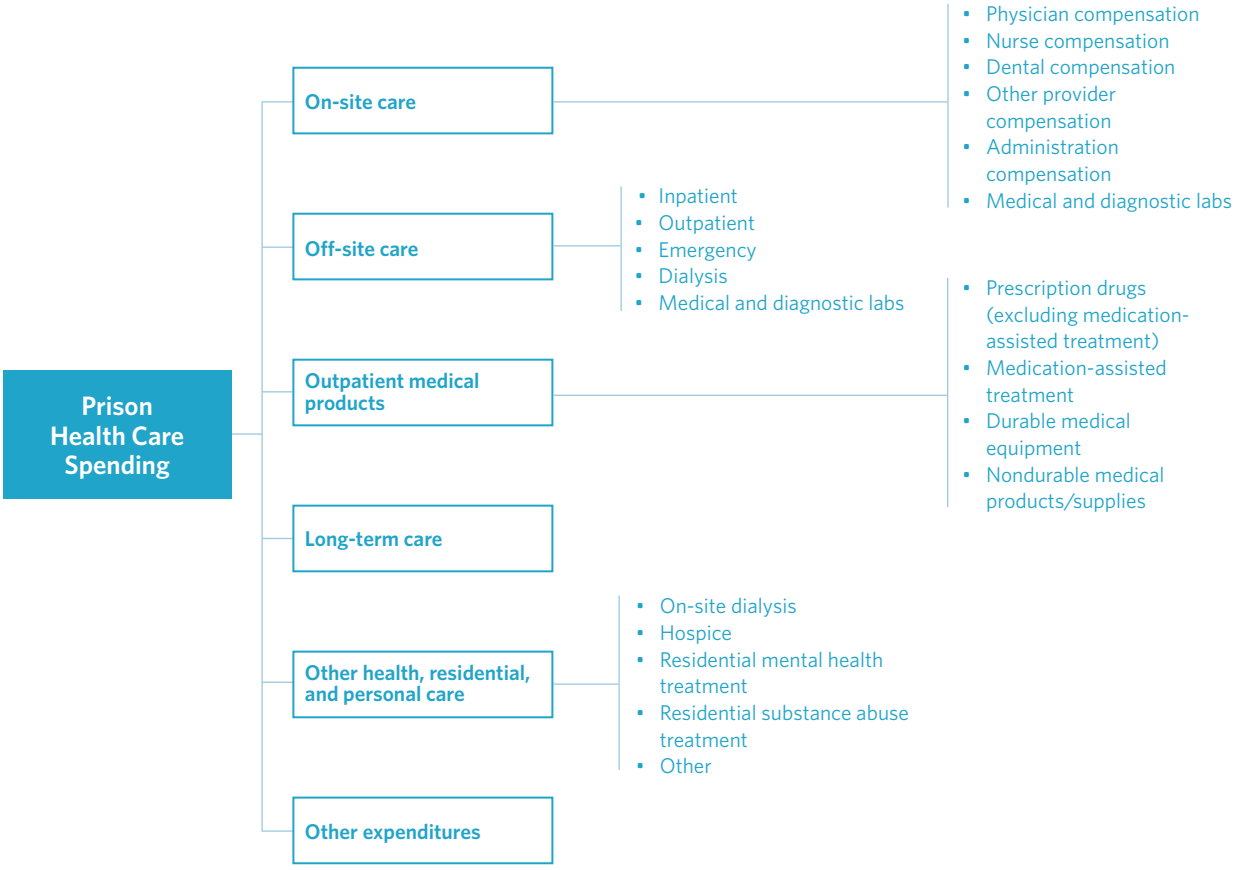
Seven states (Kansas, Kentucky, Maine, Missouri, New York, Ohio, and South Dakota) did use the provided categories to report partial data, and additional states submitted data using their own approaches, which only marginally aligned with surveyed categories. Among these seven states, four (Maine, New York, Ohio, and South Dakota) provided information for more than half of the categories, with each state's breakout summing to their total expenditures for at least three years. All but Maine provide care directly. The other three states (Kansas, Kentucky, and Missouri) populated data for eight or fewer categories, which did not add up to their total expenditures.

The categories these seven states were most likely to report data for were spending on prescription drugs, durable medical equipment (such as eyeglasses, hearing aids, and wheelchairs), nondurable products and supplies (over-the-counter medications, medical instruments, needles, thermometers), residential mental health treatment, and compensation for on-site providers.

With so few states reporting complete disaggregated expenditures using the categories provided, it is not possible to thoroughly analyze and compare states' spending distributions and trends. However, some insights do emerge from the four standout states. For example, compensation for nurses and prescription drugs were among the three largest spending categories for each in fiscal 2015. And in Maine, New York, and South Dakota, prescription drugs were among the categories that grew the most between fiscal 2010 and 2015.

Figure 3

Surveying the Distribution of State Prison Health Care Spending



Note: These categories were modeled after the Centers for Medicare & Medicaid Services' National Health Expenditure Accounts. The 22 categories surveyed encompass each bulleted line item, as well as long-term care and other expenditures. Long-term care includes expenditures for relevant skilled nursing, inpatient nursing, medication, medical equipment and supplies, and intravenous therapy.

Putting detailed spending data to use

New York and Maine each reported using expenditure analyses to inform decision-making. In April 2012, New York replaced its statewide financial system. Building on the old technology's capabilities, the upgrade allows for tracking specific expenditure categories and analyzing trends and variations in high-cost areas. Recently, the New York Department of Corrections and Community Supervision has been monitoring increases in spending for hepatitis C treatment, informing a targeted increase in the department's health budget.[74] The uptick is apparent in the data provided to Pew and Vera, with a roughly 60 percent increase in prescription drug expenditures from fiscal 2013 to 2015, a trend state officials attribute mostly to purchases of new hepatitis C medications.

Maine revamped its system in fiscal 2013, empowering officials to run more finely grained analyses. Financial data for the Department of Corrections and other agencies are now gathered together and can be parsed and sifted according to queries by analysts and administrators. Officials report that the system and the information it produces allow for data-driven budgeting by helping to establish historical cost trends, recognize emerging changes, and determine whether they are likely to require temporary or permanent adjustments.[75]

The categorical spending data Maine submitted to Pew and Vera show that a significant spending jump from fiscal 2013 to 2015 was partly driven by an increase in prescription drugs, more than offsetting a drop in inpatient hospitalization costs. Officials attribute the uptick to more inmates requiring medication for HIV, cancer, and kidney disease and the establishment of an intensive mental health unit at a correctional facility for individuals previously housed in a state mental health hospital.[76]

> Thirty-three states reported that they were unable to provide spending data for the categories Pew and Vera surveyed, with a majority of them citing as barriers systems that do not allow for parsing spending in this fashion or a lack of access to detailed spending records from contractors.

State approaches to disaggregating spending

As an alternative to populating the spending categories provided by Pew and Vera, states were also invited to break out spending based on their own approaches. Twenty-seven states provided such information, leaving 17 states providing no disaggregated data. As with the states that reported the most complete data using the scheme Pew and Vera provided, the group of 27 was made up largely of states that provide services directly. Additionally, all four states that partner with medical schools or affiliated organizations provided such data. A majority of the contracted-provision states reported no detailed data at all. (See Appendix C, Table C.6.)

The number of line items states used ranged from four in Michigan (health care, mental health, substance abuse, and federal funding) to 29 in Washington, which tracked salaries and wages, employee benefits, professional service contracts, travel, capital outlays, debt service, interagency reimbursements, and intra-agency reimbursements. Washington also dove deeply into goods and other services (such as prescription drugs) and grants, benefits, and client services (inpatient and outpatient provider payments). (See Table 3.)

The categories states track suggest a mixed picture with respect to the analytic opportunities they offer. Among the 27 states that submitted their own spending breakouts, figures in seven did not add up to their total reported expenditures, indicating that at least some trends of health care spending by the corrections department may go unmonitored. Additionally, several states reported a set of classifications that may hinder a deep examination of spending drivers. In some cases, this was because the categories were not germane to specific services or domains of services (for instance, a department tracking "Personal Services," "Travel," "Services," "Commodity," and "Equipment"). Others included among their classifications one or two that contain large portions—sometimes more than 90 percent—of spending.

Given the potential magnitude and volatility of expenditures on prescription drugs and off-site care, they can be two particularly useful areas for departments to track. Of the 27 states, 10 track both, with an additional seven monitoring pharmaceuticals but not hospitalizations and other off-site care.

Among the states that submitted disaggregated data according to their own approach, Connecticut, New Jersey, South Carolina, Washington, and Wisconsin stood out as employing especially actionable methods that lend themselves to trend analyses. (See Table 3.) In each state's submission, disaggregated expenditures were equal to total spending, and categories were relatively narrow, germane to decision-making, and allowed for parsing costs for pharmaceuticals and off-site care.

Table 3

Select Approaches to Spending Disaggregation

	Connecticut	New Jersey	South Carolina	Washington	Wisconsin
On-site care	Medical salary	Medical/dental compensation	Employee compensation	Salaries and wages	Salary
	Mental health salary	Mental health compensation	Contractors—nurses, dentists, and dental assistants	Employee benefits	Fringe benefits
	Pharmacy salary	Medical/dental fringe benefits	Medical service consultants	Professional service contracts	Limited term employees
	Labs/radiology	Mental health fringe benefits	Diagnostic radiology	Grants, benefits, client services (e.g., physician assistant/nurse practitioner/physician and specialist on-site)	Professional medical services
Off-site care	Inpatient hospitalization	Hospitalization	Inpatient hospitalization	Grants, benefits, client services (e.g., specialist off-site and hospital outpatient)	University of Wisconsin Hospital and clinics
	Emergency hospitalization		Outpatient emergency services		Waukesha Memorial Hospital
	Outpatient		Hospital medical services		Local hospital
Outpatient medical products	Drugs	Medical/dental pharmaceuticals	Prescription drugs	Goods and other services (e.g., over-the-counter medicine and prescription medicine)	Supplies and services
	Medical supplies	Mental health pharmaceuticals			Pharmaceuticals
Other health, residential, and personal care	Dialysis	Residential substance abuse treatment	Dialysis on-site	Grants, benefits, client services (provider payments, chemical dep. treatment)	
	Addiction services	Department of Human Services—mental health civilly committed			
	Smoking cessation	Medical/dental other			
Other	Administration	Medical/dental overhead	Other services	Capital outlays	Vestica (third party administrator)
	Other	Mental health overhead	Miscellaneous expenses	Grants, benefits, client services (e.g., client payments and emergency transport)	Other

Note: This table presents a condensed sample of spending categories that states reported tracking.

Data needs transcend delivery system

Policymakers and correctional administrators in every state grapple with similar managerial considerations, including resource allocation, delivery system optimization, and program and budget planning.[77] These concerns are present regardless of whether a state provides care directly, procures services through a comprehensive contract, or takes a hybrid approach. Therefore, every state benefits from access to some level of detailed spending data. If care is provided directly, evaluating cost-effectiveness is the sole responsibility of the department. If the provision is contracted, such information is necessary for proper oversight and negotiation, though there is some evidence that these states are less likely to have access to it.

Data needs in states procuring comprehensive contracts are somewhat analogous to so-called encounter data that states receive from Medicaid managed care organizations (MCOs). Some states contract with MCOs to deliver Medicaid benefits to certain patients for a fixed payment per enrollee. Whereas states use patient claims data under a fee-for-service system to monitor utilization and costs, under a capitated system, MCOs provide state Medicaid agencies with encounter data that detail specific services provided to an enrollee by a provider and corresponding payment information.[78] States use the data for a variety of purposes, including setting capitation rates, evaluation of MCO performance, and informing policy decision-making.[79]

Accounting for staffing expenditures

What states spend on prison health care, and how spending compares from state to state, is influenced by the number and type of staff they employ or secure through procurement—in total and relative to inmate populations. The Bureau of Justice Statistics has consistently found that employee salaries, wages, and benefits represent between half and two-thirds of overall prison operating expenditures.[80] Likewise, it has consistently observed a clear relationship between total operating costs per inmate and staff-to-inmate ratios. Low ratios (that is, fewer staff relative to inmates in custody) have been most common in states reporting low average costs per inmate, while high ratios predominated in states with high per-inmate expenditures.[81]

It makes sense that a similar connection would be found within the prison health care sphere, and research by the bureau[82] and the National Institute of Corrections has indicated as much.[83] Like other health care settings, as well as the country's health care spending as a whole,[84] personnel costs represent a substantial portion of states' prison health care spending. Among the four states that reported complete disaggregated spending data using the categories Pew and Vera surveyed, the provider and administrator compensation categories accounted for a median of 38 percent of expenditures in fiscal 2015. Similarly, of the states that submitted data based on their own classifications, eight broke out personnel costs in some fashion, and they represented the largest categories of spending in each state.

In fiscal 2015, states and their vendor and university partners, as applicable, took dramatically different approaches to staffing, according to data reported to Pew and Vera. The number of health professional employees—measured as the number of full-time equivalents (FTEs) to account for part-time and full-time employees—for every 1,000 inmates in custody ranged from 18.6 in Oklahoma[85] to 86.8 in New Mexico, with a median of 40.1 FTEs. Five states had 25 or fewer FTEs for every 1,000 inmates; 26 states had between 25 and 50; and 13 states had more than 50.[86] (See Appendix C, Table C.7.)

There was greater consistency in the composition of staff. Nurses—combining licensed practical nurses and registered nurses—were far and away the most common FTE type. They represented the largest share of FTEs in 33 of 37 states that provided comparable staff composition data[87] and the second largest group in the remaining four. Mental health professionals who were not psychiatrists (e.g., psychologists, mental health

counselors, clinical social workers, psychiatric technicians) were typically the second largest group, followed by administrative staff and paraprofessionals (e.g., nurse technicians, certified nursing assistants, medical assistants, orderlies, aides, dental assistants, pharmacy technicians). Variation in states' composition tended to be especially narrow in high-skill, high-cost professions (e.g., physicians, psychiatrists, dentists, physician assistants, nurse practitioners, pharmacists), which represented a small portion of staffing in every state. (See Appendix C, Table C.8.)

Health care staffing levels appear to correlate with per-inmate prison health care expenditures, though testing the causal relationship was beyond the scope of this research. States with relatively high staffing levels in fiscal 2015 tended to have higher per-inmate spending. For instance, median per-inmate spending was more than double among the 10 states with the highest staffing levels than among the 10 states with the lowest levels.[88] (See Table 4.)

Table 4

Per-Inmate Spending Increases With Health Staff

States with the lowest and highest health staffing levels, fiscal 2015

Bottom 10		
	FTEs per 1,000 inmates, FY 2015	Per-inmate spending, FY 2015
Oklahoma	18.6	$3,706
Illinois	19.3	$3,619
Louisiana	23.4	$2,173
Nevada	24.5	$3,246
South Carolina	25.0	$3,478
Alabama	25.3	$3,234
Indiana	25.4	$3,246
Pennsylvania	25.7	$4,548
Arizona	26.6	$3,529
Texas	27.2	$4,077
Median	**25.2**	**$3,504**

Top 10		
	FTEs per 1,000 inmates, FY 2015	Per-inmate spending, FY 2015
Maryland	54.2	$7,280
Wyoming	57.7	$11,798
Delaware	58.6	$8,408
Tennessee	58.7	$6,001
Minnesota	59.1	$8,158
Massachusetts	60.2	$8,948
California	69.9	$19,796
Hawaii	72.3	$5,422
Maine	79.3	$7,397
New Mexico	86.8	$12,293
Median	**59.6**	**$8,283**

Notes: Six states (Florida, Iowa, Rhode Island, Utah, Virginia, and Wisconsin) were excluded from this analysis because they submitted staffing data that were incomplete or not comparable.

Staffing figures include health professionals employed directly by the state and those secured through contracting.

This analysis compares the number of health professional employees—measured as the number of full-time equivalents to account for part-time and full-time employees—per 1,000 inmates under the **custody** of the corrections department to spending per inmate under the **jurisdiction** of the corrections department. In most states, the vast majority of inmates under their jurisdiction are also under their custody. In states that make greater use of local jails or private prisons, where inmates are not under the custody of the state, it is possible that per-inmate health care figures would differ if calculated based solely on spending in state-run facilities for inmates under state custody.

Importantly, states' filled positions may not entirely reflect their desired or budgeted staffing levels. Some states reported difficulty in recruiting and retaining health care staff, especially mental health providers and nurses, most frequently experiencing these challenges in remotely located prisons. Nevada, Oklahoma, and South Carolina, for example, all reported relatively large vacancy levels, though filling all their empty positions would only marginally increase their staff-to-inmate ratios.

There is no available one-size-fits-all template for staffing. Every state must weigh numerous factors when determining what size and composition is appropriate. An important consideration is what returns their personnel investments generate. States must determine whether the health professionals they employ or secure through procurement position them to cost-effectively and sustainably meet constitutional requirements—including by following state guidelines for the procedures, actions, and processes a practitioner is licensed to undertake[89]—and improve public health and reduce recidivism. An important tool in that assessment is a rigorous and actionable quality monitoring system.

Accounting for hospitalization expenditures, shifting costs

State prison systems typically provide primary care and basic outpatient services in-house.[90] Some have specialized medical facilities, including fully equipped infirmaries or hospitals, to care for individuals with acute or chronic illnesses that do not require off-site hospitalization. But nearly every system's facilities are at least somewhat limited in the care that can be provided—specialized diagnostic equipment is a common example because its demand is deemed too small to justify its expense—so prison systems must rely to some degree on off-site hospitals for specialist consultations, diagnoses, and observation; surgery; and other services.[91]

Because of their inherent duration and intensity, hospitalizations represent a significant health care cost. Nationwide, inpatient care provided in hospitals accounts for a quarter of what the country spends on health care as a whole.[92] Therefore, it is an important category of spending for correctional staff to monitor closely.

In recent years, state departments of correction, working with Medicaid agency partners, have increasingly looked to the federal-state Medicaid program as a way to save money in this area. But states' use of this savings strategy has been uneven, contributing to per-inmate spending differences.

States are not precluded by inmates' incarceration status from enrolling them in Medicaid. The federal Centers for Medicare & Medicaid Services has long held that individuals who meet states' Medicaid eligibility criteria "may be enrolled in the program before, during, and after the time in which they are held" in jail or prison.[93] However, most inmates could not enroll in years past because, as nondisabled adults without dependent children, they did not meet many states' categorical eligibility criteria despite their low income.

Beginning in January 2014, the Affordable Care Act (ACA) created an opportunity for states to change this situation by providing additional federal money to those that elect to expand their eligibility criteria for Medicaid coverage to all individuals under age 65 who earn up to 138 percent of the federal poverty level ($16,643 for a single adult in 2017).[94] This expansion removed a key barrier that frequently prevented states and localities from enrolling inmates—or keeping them enrolled during incarceration with suspended coverage—and seeking federal Medicaid reimbursement for certain services provided to inmates. Thirty-one states and the District of Columbia had expanded their criteria in accordance with the ACA as of the writing of this report.[95]

Under long-standing federal regulation, states may provide Medicaid coverage only to inmates for inpatient care delivered outside the prison, such as at a hospital. Under these circumstances, states can obtain federal reimbursement that covers at least 50 percent—and much more, if the person is newly Medicaid-eligible—of

prisoners' off-site inpatient costs, as long as they are eligible and enrolled in the program at the time of the hospitalization or soon thereafter.[96]

States that expanded their Medicaid eligibility under the ACA generally realize the largest savings from this option because most inmates, as nondisabled adults without dependent children, are eligible for coverage only under the expansion. Moreover, payments for these newly eligible individuals trigger the enhanced federal match of at least 90 percent.

By sharing the cost of some of their most expensive services with the federal government, some states have saved significant sums of money. But the uneven use of this strategy, stemming in part from variation in states' decisions regarding the expansion of eligibility criteria, must be considered when comparing fiscal 2014 and 2015 prison health care spending levels.

Take the Ohio Department of Rehabilitation and Correction, which saw its inflation-adjusted per-inmate spending fall by 9 percent from fiscal 2013 to 2015. In anticipation of Medicaid expansion, the department began working with the state's Medicaid agency in 2013. By July 2013, Ohio was activating Medicaid coverage for inpatient hospitalizations of inmates younger than age 21, over age 64, or pregnant—cohorts whose eligibility predated the ACA. This was extended to all inmates in March 2014 after expansion had taken effect.[97] According to state officials, a drop in hospital spending by more than half was the largest contributor to the department's overall health care spending decline and the use of Medicaid financing was a leading reason.[98]

Similarly, New Jersey attributed a 20 percent reduction in the department's hospitalization costs—from $12.2 million in fiscal 2014 to $9.8 million in fiscal 2015—to its efforts to enroll eligible individuals in Medicaid.

Agency Responsibility for State Medicaid and Off-Site Care Costs Varies

When departments of correction partner with Medicaid agencies, states take different approaches as to which agency covers the state's share of costs. In some states, the department of corrections pays for the remaining balance after federal reimbursement, whereas Medicaid agencies do so in others. This is primarily a decision of how best to administer the program with respect to inmates; the state's obligation remains the same in either scenario.

Some states have entities besides their department of corrections pay for all off-site care. For example, the University of Iowa Hospitals and Clinics receives state money to cover all inpatient, outpatient, and diagnostic care provided to incarcerated individuals within university facilities. Similarly, until fiscal 2014, Louisiana State University provided and paid for all off-site medical care.

Different arrangements contribute to variation when comparing health care spending by departments of correction, but do not necessarily result in differences in prison health care expenditures from the standpoint of state budgets as a whole.

Sources: Lettie Prell, director of research, Iowa Department of Corrections, interview with The Pew Charitable Trusts, Aug. 29, 2016; Jodi Babin, assistant budget director, Louisiana Department of Corrections, interview with The Pew Charitable Trusts, Jan. 26, 2017

Importantly, states need not expand their Medicaid programs in accordance with the ACA to make coverage available to inmates. Those with more traditional eligibility requirements will have some inmates who qualify. Wisconsin, for example, has not adopted the ACA's Medicaid expansion but provides coverage to nondisabled childless adults whose incomes do not exceed 100 percent of the federal poverty level.[99] The state receives the same level of federal support for covering this population as it does for other eligible enrollees.

Health care prices that prisons pay

Health care spending—and therefore spending variation—in any setting reflects the combined effects of utilization (the quantity, intensity, and mix of services) and price, the amount paid per unit of health care service. Price variation is attributable to two factors: input prices, such as wages, rent, and other labor, capital, and overhead costs; and negotiated provider profit margins.[100] The first reflects geographic differences in the cost of doing business; the second is driven by imbalances in the relative negotiating power of payers and providers.

With spending data alone—without information on utilization and prices paid for comparable services—it is impossible to definitively know the extent to which price differences contribute to per-inmate spending variation or how particular states are affected. However, in the absence of standardized, nationwide price baselines, it is likely that prices play some role in spending differences. For example, median salary differences for clinicians by geographic region could have a marginal effect on spending, as could variances in the accessibility of certain specialists and services.

Hospital prices

There is some evidence that hospitalization prices contribute to per-inmate spending differences. Departments in many states negotiate their own rates with hospitals for inpatient and outpatient care. But some, including those in Connecticut, Texas, Washington, and West Virginia, adopt the price schedule negotiated by their state's Medicaid agency, even for care of individuals who are not enrolled in Medicaid (which can cover inpatient hospitalizations for eligible inmates). Because Medicaid typically negotiates the most advantageous provider rates among payers in a state,[101] the departments that take this approach may be paying less than departments in other states for comparable services.

Departments in other states (such as Indiana) reported benchmarking their rates close to Medicare or by what the state's employee health plan pays (in Oklahoma and South Carolina).

Whom state prison health care dollars treat

For any health care payer—employer-sponsored insurance plans, Medicare, Medicaid, or others—the composition of individuals covered can have a dramatic effect on costs. Key interrelated predictors include age, gender, and health status. The same holds true for state prison health care systems. In addition to high rates of infectious diseases, mental illness, and substance use disorder, chronic conditions such as hypertension, diabetes, and heart disease have emerged as a growing challenge and expense. One of the trends contributing to this circumstance is the aging of state prison populations.[102]

Prevalence of costly chronic conditions

In the U.S. health care system, chronic diseases and the behaviors that cause them account for most health care costs.[103] Indeed, nearly 9 in 10 health care dollars nationwide go to treat people with at least one chronic condition. Because they tend to visit the doctor more frequently, fill more prescriptions, and experience more

hospitalizations, among other drivers, annual spending is more than double for those with one chronic condition, and more than five times as much for individuals with three.[104]

In 2011-12, according to the Bureau of Justice Statistics, half of state and federal prisoners reported ever having a chronic condition, and 40 percent reported having a current one.[105] This percentage was far greater than in the general population, even after controlling for sex, age, and race. Hypertension, a chief risk factor for cardiovascular disease, was the most commonly reported condition, followed by asthma and arthritis. Nearly three-quarters of all persons in prison were overweight, obese, or morbidly obese, perhaps reflecting poor nutrition or a lack of exercise or physical activity, leading causes[106] of chronic diseases in the community. As in the general population, older individuals (73 percent) were most likely to report a chronic condition. A majority of women (63 percent) also reported having one or more.

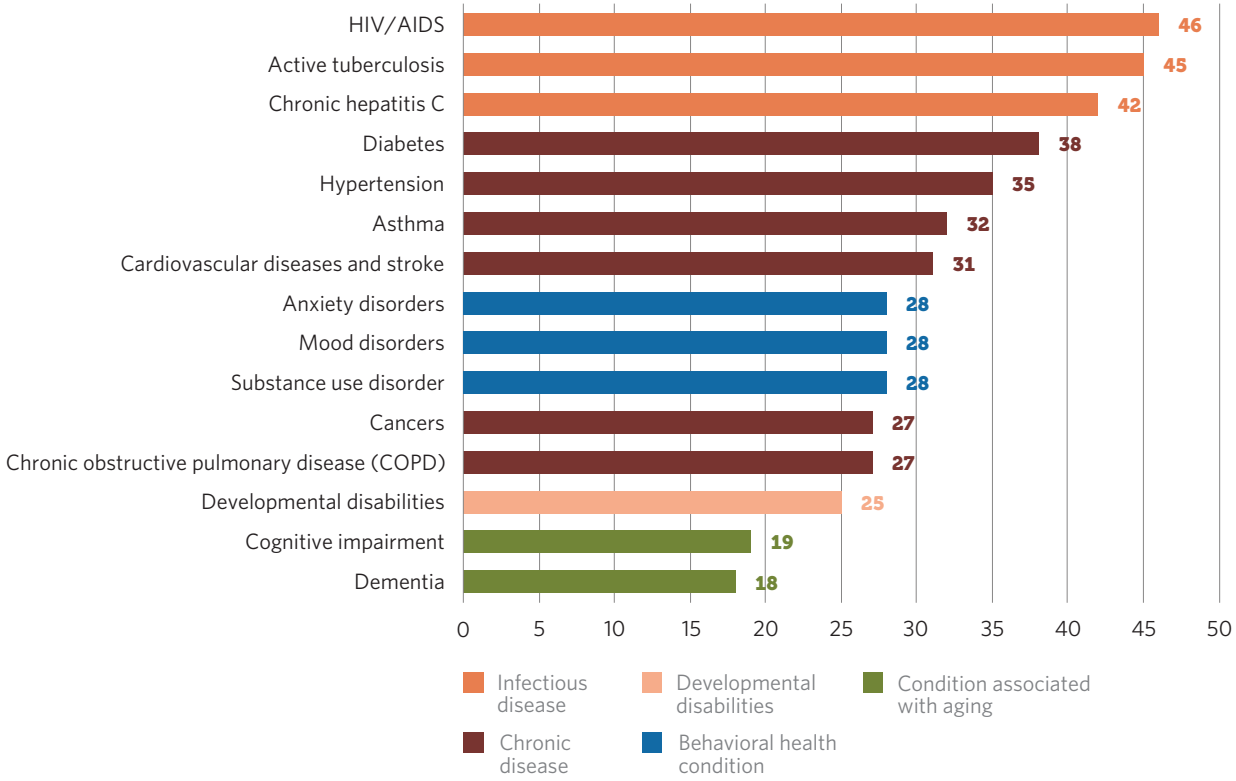
A robust probing of state-to-state spending variation per inmate would require accounting for differences in the incidence of costly conditions, including chronic disease. Unfortunately, comparable disease burden data are not available state by state, in part because of the absence of regular reporting and inconsistency in prevalence tracking practices.

Pew and Vera asked states whether they track the prevalence of several serious conditions common among incarcerated populations. Nearly all states reported that they track HIV/AIDS, active tuberculosis, and chronic hepatitis C. However, there was greater variability with respect to chronic and behavioral health conditions. And despite the aging of the prison population, states were least likely to track the prevalence of two associated conditions: cognitive impairment and dementia. (See Figure 4.)

Figure 4

Infectious Disease Prevalence Tracking Most Common; Geriatric Conditions Least Common

Number of states tracking select conditions, fiscal 2016



Note: Forty-seven states provided data on their prevalence tracking practices to Pew and Vera. (See Appendix C, Table C.11 for state data.)

Still, some insights can be gleaned from examining the presence of certain groups disproportionately likely to have expensive care needs, including older individuals and women.

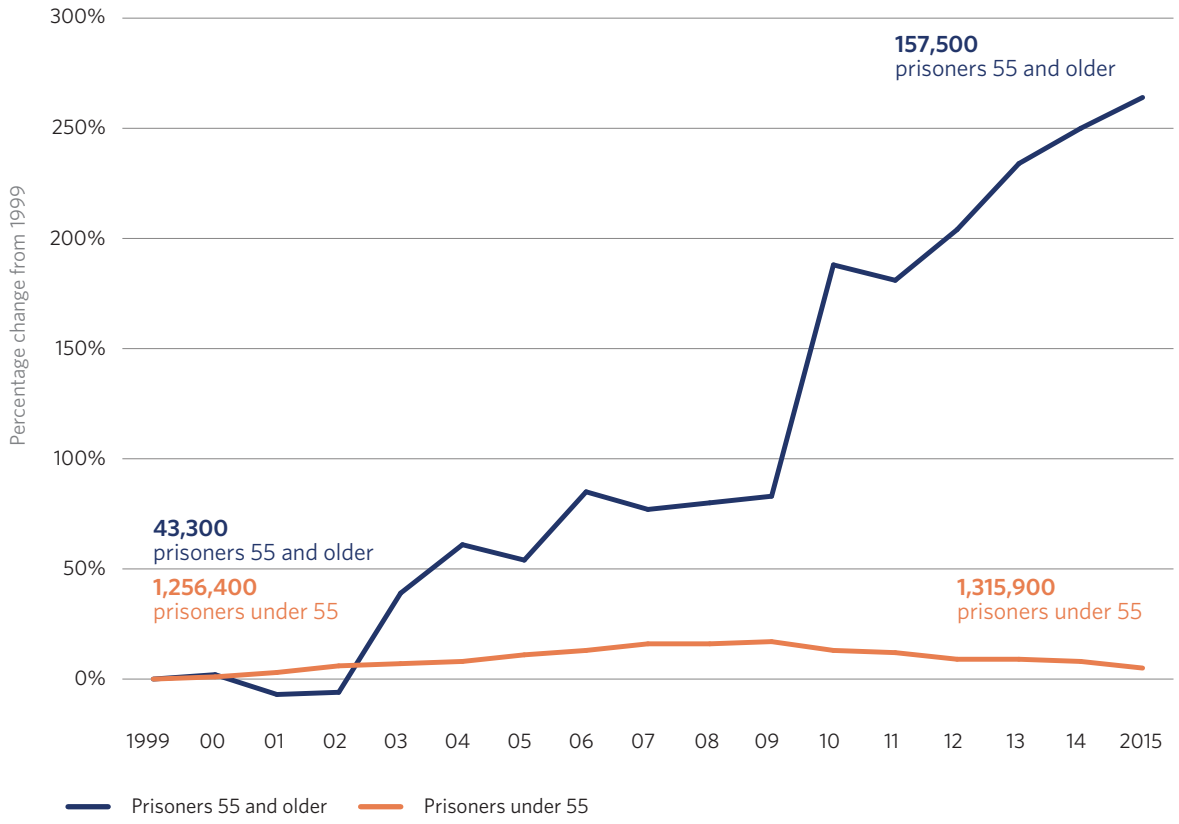
Aging prison populations

The amount of older individuals behind prison bars has grown over time, and so have the resources required to treat them. From 1999 to 2015, the number of people age 55 or older in state and federal prisons—a common definition of "older" individuals in prison—increased 264 percent.[107] During the same period, the number of inmates younger than 55 grew much more slowly: up 5 percent. (See Figure 5.) As a result, older inmates swelled from 3 percent of the total prison population to 11 percent.

Figure 5

The Number of Older Prisoners Grew by 264%, 1999-2015

Percentage change in sentenced prison populations by age group



Note: The Bureau of Justice Statistics estimates the age distribution of prisoners using data from the Federal Justice Statistics Program and statistics that states voluntarily submit to the National Corrections Reporting Program. State participation in this program has varied, which may have caused year-to-year fluctuations in the bureau's national estimates, but this does not affect long-term trend comparisons. From 2009-10, the number of states submitting data increased substantially, which might have contributed to the year-over-year increase in the national estimate between those years.

Source: U.S. Department of Justice, Bureau of Justice Statistics

State prison populations account for the vast majority of these totals.[108] Previous Pew research found that, from fiscal 2007 to 2011, the share of individuals age 55 and over increased in nearly every state prison system. More recently, among 44 states that reported population data by age to Pew and Vera,[109] the number of older individuals increased by a median of 41 percent from fiscal 2010 to fiscal 2015, expanding from 7 percent of the total to 10 percent. Indeed, the share of older prisoners increased in every state that provided data, topping out in fiscal 2015 at a range of less than 8 percent in Connecticut, Indiana, Kentucky, New Jersey, and North Dakota to more than 12 percent in Massachusetts, Nevada, Oregon, West Virginia, and Wyoming. (See Figure 6.)

Looking ahead, the proportion of inmates age 40 to 54 is an indication of how prison populations may continue to age. In fiscal 2015, this group accounted for a quarter of the population in Delaware, North Dakota, and South Dakota, and as much as a third in Hawaii and Massachusetts. Of course, not all of these individuals will remain in—or return to—prison when they are age 55 or older.

Greater need, greater expense

Like senior citizens outside prison walls, older individuals in prison are more likely to experience dementia, impaired mobility, and loss of hearing and vision.[110] In prisons, these ailments present special challenges and can necessitate increased staffing levels and enhanced officer training, as inmates may have difficulty complying with orders from correctional officers. They can also require structural accessibility adaptions, such as special housing and wheelchair ramps.

Additionally, as the Bureau of Justice Statistics found, older inmates are more susceptible to costly chronic medical conditions. Medical experts say inmates typically experience the effects of age sooner than people outside prison because of issues such as substance use disorder, inadequate preventive and primary care prior to incarceration, and stress linked to the isolation and sometimes violent environment of prison life.[111]

For all of these reasons, the older inmate population has a deepening impact on prison budgets. Estimates of the increased cost vary. The National Institute of Corrections pegged the annual cost of incarcerating prisoners age 55 and older with chronic and terminal illnesses at, on average, two to three times that of the expense for all others.[112] More recently, other researchers have found that the cost differential may be wider.[113]

At the federal level, an assessment by the Department of Justice's inspector general found that, within the Federal Bureau of Prisons, institutions with the highest percentages of aging inmates spent five times more per inmate on medical care—and 14 times more per inmate on medication—than institutions with the lowest percentage of aging inmates.[114]

Why state prisons are aging

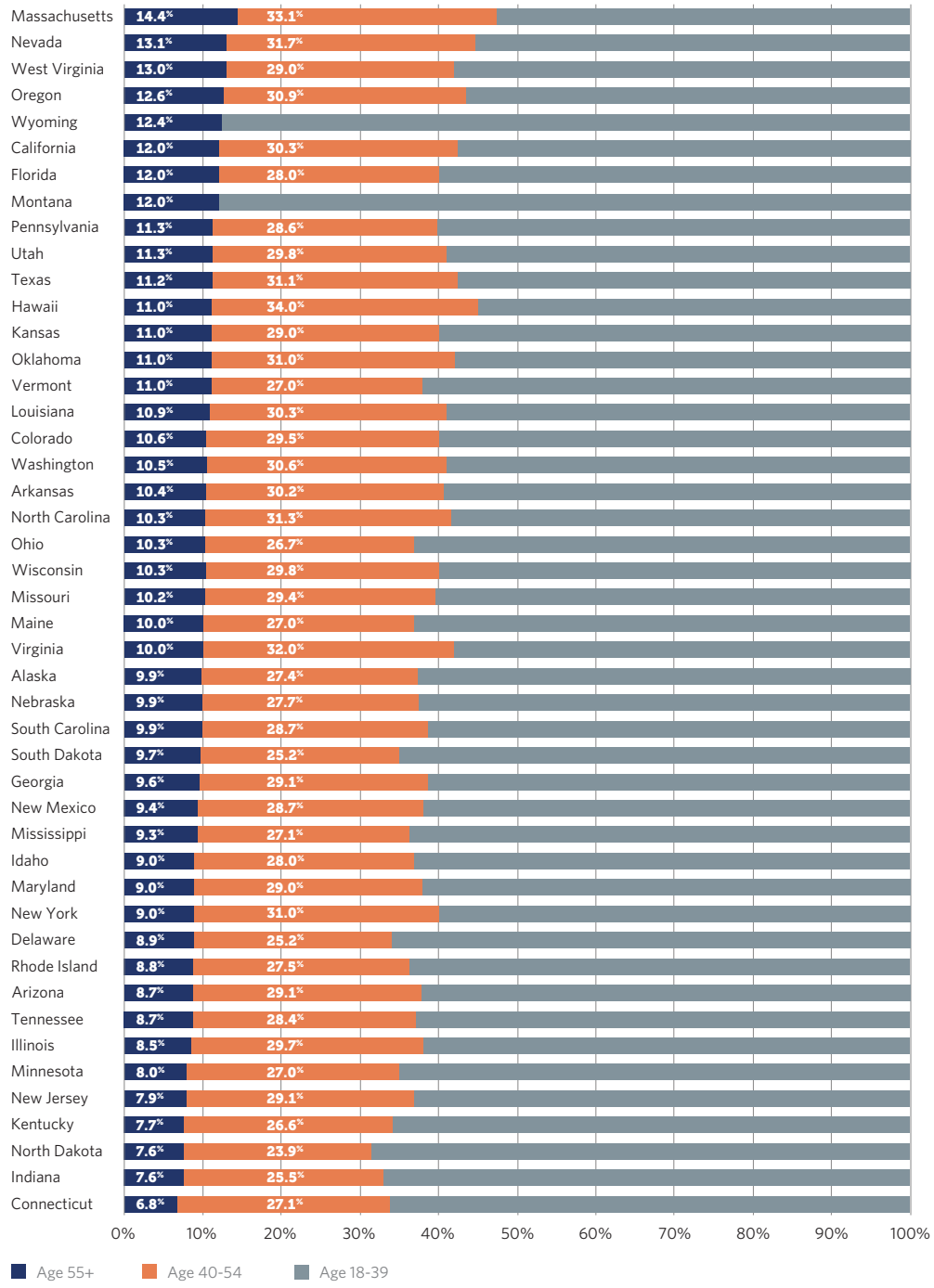
The graying of state prisons stems from an increase in admissions of older inmates to prison and the use of longer sentences as a public safety strategy.[115] From 2003 to 2013, admissions increased by 82 percent for those age 55 or older—faster than overall population growth for that age group—even as they declined for younger individuals. A majority of these admissions were for new court commitments, which generally carry longer sentences than parole violations.

Across all ages and offense types, the average time expected to be served on a new court commitment rose from 29 months in 1993 to 39 months in 2013. Among those age 55 or older in 2013, 40 percent had served 10 years or more, up from just 9 percent who had served that long in 1993. As a result, individuals became more likely to grow old in prison. Six in 10 older inmates in 2013 had aged into that cohort, nearly double the share from 1993.

An additional explanation for the lengthy sentences is the nature of the crimes committed. Many of today's older inmates were convicted of serious, violent felonies in their younger years. Between 1993 and 2013, two-thirds of people in state prison age 55 or older were sentenced for a violent crime, such as assault, rape, or murder. This was the highest percentage among all age groups. Similarly, violent offenses were consistently the most common reason for new commitments among this group.

Figure 6

Prison Population Age Distribution by State, Fiscal 2015



Note: Three states (Alabama, Iowa, and Michigan) either did not track inmates by the age brackets surveyed or did not report data to Pew and Vera for fiscal 2015. Montana and Wyoming reported data only for the proportion of inmates age 55 and over. New Hampshire provided no data at all. Percentages reflect all inmates under the jurisdiction of state departments of correction (i.e., those under the legal authority of the state, regardless of where the prisoner is held). (See Appendix C, Table C.9 for state data.)

Women in prison

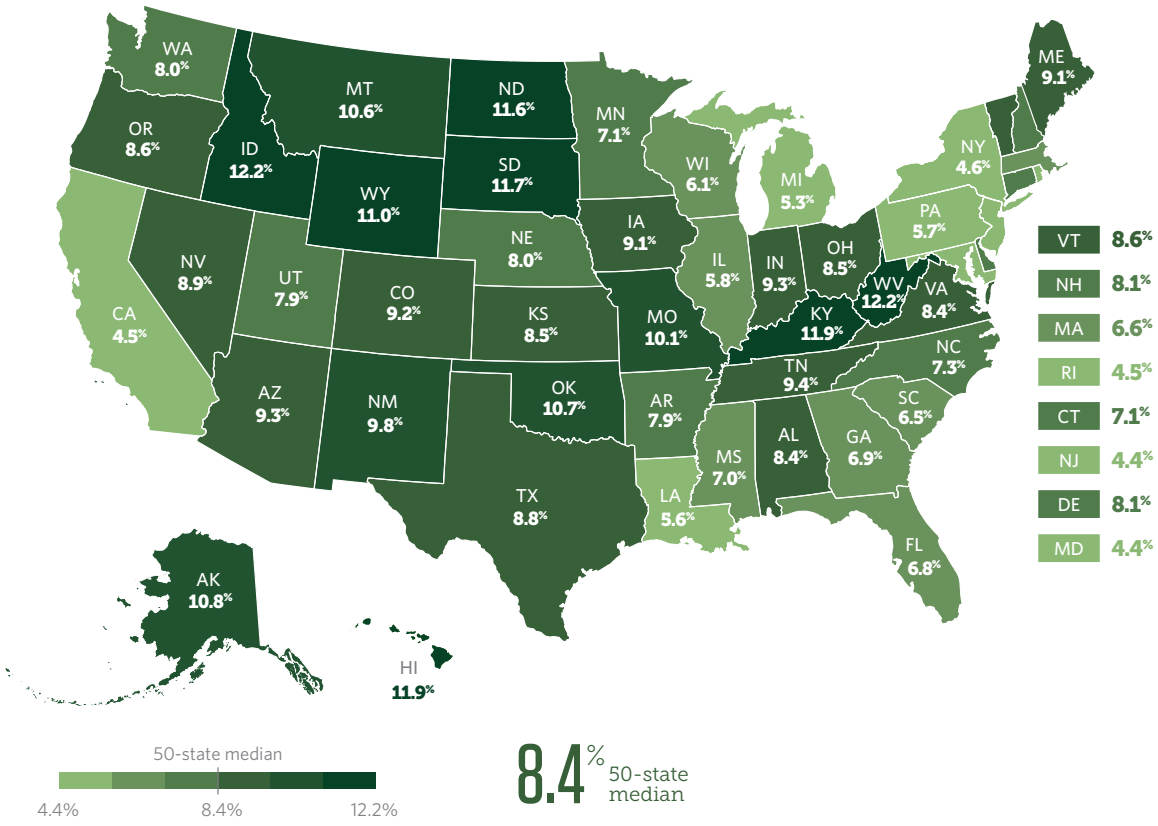
Like older individuals, women make up a small portion of state prison populations, but tend to have outsized and sometimes costly health needs. As the Bureau of Justice Statistics found, they are more likely than prisoners overall to report a current or past chronic condition. And their rates of mental illness are substantially greater, in part because of high rates of childhood sexual abuse and post-traumatic stress disorder.[116]

Also similar to older individuals, their numbers relative to state prison populations overall vary across the country. In California, Maryland, New Jersey, New York, and Rhode Island, women represented less than 5 percent of incarcerated individuals under state jurisdiction in 2015, whereas their share was above 11 percent in Hawaii, Idaho, Kentucky, North Dakota, South Dakota, West Virginia, and Wyoming.[117] (See Figure 7.)

Figure 7

Relative Number of Women in State Prisons Varies

Female share of state prison populations, 2015



Note: Percentages represent those under jurisdiction of state correctional authorities on Dec. 31, 2015. Percentages were imputed for Nevada and Oregon, which did not submit 2015 data to the Bureau of Justice Statistics. Percentages for Alaska, Connecticut, Delaware, Hawaii, Rhode Island, and Vermont reflect jail and prison populations, as prisons and jails form one integrated system. (See Appendix C, Table C.10 for state data.)

Source: U.S. Department of Justice, Bureau of Justice Statistics

Dearth of data notwithstanding, prevalence is probably connected to costs

Without standardized and universal procedures for tracking and reporting the prevalence of expensive medical conditions, or a comprehensive understanding of differences in the practice patterns employed to treat them (such as using more or fewer tests or prescription drugs), it is not possible to know with precision how their presence affects prison health care spending state to state. But, as is true for every health care setting and payer, it is likely that both prevalence and practice patterns play a part in what is spent, how spending changes over time, and the observed variation across the country. With some states caring for more than twice the percentage of older inmates as their counterparts, and others imprisoning relatively fewer women than their neighbors, states face different challenges with respect to care needs, and their treatment responses are embedded in their per-inmate expenditures.

Accounting for quality of health care that state prison dollars fund

The nature of the health care prisons provide affects inmates' well-being and has a major impact on whether states are able to cost-effectively and sustainably abide by constitutional obligations and make the most of opportunities to improve public health and reduce crime and recidivism. Indeed, it was poor quality that led to the establishment of legal requirements. Providing inadequate treatment for infectious diseases and behavioral health conditions, among others, forecloses chances for prison health care to pay dividends in the communities to which individuals return. And any value assessment of what taxpayers are getting for their prison health care dollars—and how it compares to other states—is critically dependent on an evaluation of the care provided.

Nevertheless, policymakers and administrators do not always have the information they need—or regularly use what they do have—to proactively identify shortcomings and make improvements. If they do not base their decision-making on complete facts, they risk spending scarce resources unwisely and missing out on opportunities to meet their objectives and obligations.

> "We really believe the way to provide cost-effective health care is by providing great quality care. So we put a lot of emphasis on performance measures and clinical quality metrics."
>
> **Michael Mitcheff,** *chief medical officer, Indiana Department of Correction*
>
> Source: Michael Mitcheff, chief medical officer, Indiana Department of Correction, interview with The Pew Charitable Trusts, Aug. 26, 2016

To date, there are no uniform quality-of-care standards for correctional systems and facilities, nor a mechanism for reporting comparable performance data.[118] Standards have been developed by accreditors and other bodies, and hundreds of state facilities have adopted them. Nevertheless, little is known systematically about whether and how states measure and monitor quality in their prison health care systems.[119] Even less is known about actual outcomes.

Therefore, Pew and Vera surveyed senior medical staff in state corrections departments to better understand whether states have a quality monitoring system in place; its origins, design, and scope; and how the system is used to continuously identify shortcomings, improve the value of care, and inform policymaking. Every state except Alabama, Kansas, and New Hampshire provided data.

National evolution of quality monitoring

Recent decades have seen a movement to develop and implement measures and systems for monitoring the quality of health care, largely in response to growing evidence of disparities and deficiencies.[120] Several bodies, including the National Committee for Quality Assurance (NCQA), the American Medical Association, the National Quality Forum, and the Centers for Medicare & Medicaid Services have stepped forward to provide guidance about how this can best be done. Today, most health insurance plans in the U.S. undergo annual quality measurement and public reporting of results using NCQA's performance measures from its Healthcare Effectiveness Data and Information Set (HEDIS).[121]

Measuring care quality

The Institute of Medicine (IOM) defines quality of care as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[122] IOM separates care quality into a framework of six dimensions: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.[123] (See Figure 8.) Existing measures primarily address effectiveness or safety, with fewer examining timeliness and patient-centeredness. Few assess efficiency or equity.[124]

Within this framework, each dimension can be evaluated based on structure, process, and outcome.[125] Structural components represent relatively fixed inputs of care, such as the number of beds or the presence of an electronic health records system. Process measures relate to the actions of providers and their interactions with patients, while outcomes pertain to near- and long-term effects of providing care.[126] According to the IOM, process measures should be backed by evidence that better processes lead to better outcomes. Likewise, outcome measures should be tied to processes, ensuring that they are measuring effects over which the health care system has influence.[127]

Figure 8

Health Care Quality Measurement Framework

Care Quality Measures					
Safe	**Effective**	**Patient-centered**	**Timely**	**Efficient**	**Equitable**
Preventing actual or potential bodily harm.	Providing care processes and achieving outcomes as supported by scientific evidence.	Meeting patients' needs and preferences and providing education and support.	Obtaining needed care while minimizing delays.	Maximizing the quality of a comparable unit of health care delivered or unit of health benefit achieved for a given unit of health care resources used.	Providing health care of equal quality to those who may differ in personal characteristics other than their clinical condition or preferences for care.
Structure ⟷		**Process** ⟷		**Outcome**	

Source: Institute of Medicine; RAND Corp.

How state prisons monitor care quality

As health care quality measurement and monitoring has matured in the community, some state prison health care systems—alongside their colleagues in state Medicaid[128] and employee health plan[129] agencies—have begun integrating such activities into their operations. Still, little has been known about whether and how they do so. The scope of past research has been limited to individual states or small samples, preventing policymakers and other stakeholders from drawing broad-based, comparable conclusions and lessons.

For example, in 2009, the RAND Corp. reviewed the systems of Missouri, New York, Ohio, Texas, Washington, and the Federal Bureau of Prisons regarding what measures were being used by state and federal institutions, the relative comprehensiveness of those measures, and barriers and facilitators to quality measurement for prison systems.[130] RAND found that while each of these departments was doing something to monitor quality, there was substantial variation in the number, types, and origins of measures being used, as well as in the developmental phase of the underlying system enabling quality data collection. Covering a wide range of domains and clinical areas (for example, infectious disease, screening, preventive services, access, prevalence), most systems emphasized measurement of processes over outcomes.

RAND researchers also found that most systems they reviewed had facilities that were accredited by the American Correctional Association or the National Commission on Correctional Health Care. Both accreditors make site visits to conduct interviews and review patient charts and administrative documentation (such as policies, relevant meeting minutes, training curricula, and patient grievances) to test compliance with accreditation standards. RAND argued, like researchers before them,[131] that while many of the standards have process measures associated with them, such as how quickly services are delivered, they are not designed to assess whether evidence-based recommended care is provided and whether desired outcomes are achieved.

Examples of a Quality Measure

Quality measures can be used to determine whether patients with a particular health condition received appropriate and timely care. The following examples are meant to be illustrative, not prescriptive:

- Screening: Percentage of inmates who received a physical examination within the first week of incarceration.
- HIV/AIDS: Percentage of inmates—in the facility at least 12 months—diagnosed with HIV whose viral load is controlled to target.
- Diabetes: Percentage of inmates—in the facility at least 12 months—diagnosed with diabetes whose hemoglobin A1c is maintained at target.
- Hypertension: Percentage of inmates—in the facility at least 12 months—diagnosed with hypertension whose blood pressure is controlled to target.
- Mortality review: Peer-review process, often involving a broad set of staff, to identify potential problem areas associated with care.

A 50-state survey of prison quality monitoring systems

For the purposes of this study, a quality monitoring system was defined as a uniform, standardized, and ongoing set of policies, metrics, benchmarks, and data sources used and monitored by state officials—whether care was primarily provided directly or outsourced. To meet this definition, state quality monitoring efforts had to meet four criteria. (See Table 5.) They had to be:

- Grounded in data;
- Established and overseen by state agencies;
- Applied broadly and consistently; and,
- Operated on an ongoing basis.

Thirty-five states reported that they operated a prison health care quality monitoring system in fiscal 2016, with 12 responding that their efforts did not meet the criteria. (Three states—Alabama, Kansas, and New Hampshire—did not respond to the survey.) (See Figure 10.) All but one of the 35 states indicated that their monitoring systems were applied to every facility (Kentucky applies its system to more than three-quarters of facilities).

Nearly every state with a system assigns responsibility for monitoring quality to its corrections department. Some share responsibility with departments of health or public health (Arkansas, California, Indiana, Massachusetts,

Nevada, New York, and Washington) or the Office of Inspector General (California). South Dakota was the only state to report that operation of its monitoring system was entirely outside of its corrections department. Quality is monitored by its Department of Health, which provides medical, dental, and optometry services in the prison. Its Department of Social Services manages mental health care.

Table 5

Characteristics of a State Prison Health Care Quality Monitoring System

Characteristic	Definition	Example
Grounded in data	The system uses a set of measures to assess the quality of care delivered in correctional facilities.	California Correctional Health Care Services established a systemwide online dashboard that uses clearly defined quality measures to assess whether certain processes and outcomes are followed and achieved.
Established and overseen by state agencies	The system is overseen by one or more state agencies. It is distinct from systems overseen by contracted vendors, though it may interact with them by incorporating measures monitored internally by vendors and/or collect data on particular measures from vendors to populate its own system. States may use their system to oversee the performance of vendors.	As in many states, Maryland's contracted health care providers have their own quality improvement processes. Layered on top is a quality monitoring process of the state that involves both chart reviews and site visits by staff of the Department of Public Safety & Correctional Services, as well as a separate process for monitoring contract compliance.
Applied broadly and consistently	The system is applied to more than half of state prison facilities, and more than half of the measures used across facilities are identical.	All facilities in Washington state must monitor a core set of measures, but facilities may add additional metrics if there is an area of care they want to monitor more closely.
Ongoing process	Quality is monitored on a regular schedule, not in a point-in-time snapshot fashion. This allows for tracking both continuous operations and the quality of the results of services.	Every Sunday, the New Jersey Department of Corrections generates a report that shows whether its provider is meeting performance thresholds.

Quality monitoring system objectives

When queried about their most significant objectives for quality monitoring systems, states spoke to a variety of aims.

Tool for organized, methodical quality improvement. For the Missouri Department of Corrections, its system is meant "to provide a planned, systematic and collaborative approach to designing, measuring, assessing, and improving the delivery of health services." Quality monitoring by the Mississippi Department of Corrections is meant "to identify, analyze, and correct problems which may potentially impede the quality of inmate health care."

Maximize value through the twin goals of adequacy and efficiency. Tony Washington, correctional health services administrator for the Utah Department of Corrections' Clinical Services Bureau, reported his state's primary objective in monitoring quality is providing "constitutionally mandated offender health care in a competent, caring, and cost-effective fashion." Pennsylvania's chief of clinical services for the Department of Corrections, Dr. Paul Noel, said his system's principal objective was to "provide necessary medical care for inmates in a clinically appropriate manner, organized for the most efficient use of resources."

Meeting constitutional obligations and accreditation standards. Dr. Gloria Perry of Mississippi said that alongside identifying, analyzing, and correcting problems, her system seeks "to ensure [that] the provision of inmate health care [is] consistent with applicable American Correctional Association (ACA) standards, National Commission on Correctional Health Care standards, and constitutional standards governing health care service delivery." Oklahoma's respondent also cited ACA standards, while those from New Jersey and Tennessee cited "legal requirements" and a goal to "reduce liability."

Vendor oversight. Kenneth Williams, chief medical officer of the Tennessee Department of Correction, said that a principal objective of his state's quality monitoring system is to "hold [the department's] vendor accountable."

Georgia, Missouri, Pennsylvania, and Washington stand out for reporting an especially expansive and consistent set of objectives. (See Table 6.) By seeking to marshal reliable evidence to measure quality and employ effective feedback loops to inform and execute performance-improvement plans, the states aim to use their monitoring systems to meet standards effectively and efficiently.

Table 6

Select Objectives of Quality Monitoring Systems

	Georgia	Missouri	Pennsylvania	Washington
Overarching purpose	Ensure adequate standards for health care within each facility.	Provide a planned, systematic, and collaborative approach to designing, measuring, assessing, and improving delivery of health services.	Provide necessary medical care for inmates in a clinically appropriate manner, organized for the most efficient use of resources.	Ensure that health services provided are accessible, safe, effective, patient-centered, timely, efficient, [and] equitable.
Data-driven measurement		Define indicators used to measure the quality and effectiveness of all health care services.	Utilize an approach to quality assurance and quality improvement that generates and relies on objective data to identify and monitor problems and to document progress in their remediation.	Monitor quality through data, performance measures, direct inspection, and ongoing dialogue.
Clinical outcomes and standards		Attain desired clinical outcomes and maintain optimal level of health to patients.		Promote standardized, evidence-based practice.
Continuous quality improvement		Continuous improvement through the use of evidenced-based methods.	Develop mechanisms to ensure and improve the quality of care delivered, addressing elements of structure, process, outcome, and resources.	Identify systemic gaps.
Better management	Allocate appropriate resources regarding staffing and equipment to ensure that needs are met. Ensure that all decisions related to delivery of, access to, or quality of health care [are] made by qualified personnel.		Develop consistent policies and procedures related to credentialing, professional education, communicable disease surveillance, audit of clinical processes and outcomes, disease prevention, and clinical supervision.	Ensure clinical competency through formal clinical oversight processes. Empower all staff as active participants in continuous quality monitoring and improvement.
Constructive communication	Promote ongoing communication between the facility administrative staff and the facility medical staff to ensure that services can be delivered efficiently and effectively.		Facilitate change and improvement, interpretation and communication of results must be thoughtful, clear, prompt, and operationally practical.	Promote safe, honest, frank discussion of near misses and identified deficiencies.
Targeted priorities	Monitor availability of health services appointments within a specific time frame.	Examine high-risk, high-volume, and problem-prone aspects of care.		Monitor population health; systematically manage chronic disease.

Note: This table presents a lightly edited and condensed sample of objectives that states reported.

Scope and focus of quality monitoring systems

The scope and focus of monitoring systems varied somewhat across the states. To gain insight into what states with systems measure, Pew and Vera asked each whether their monitoring covered one or more of six clinical domains:

- Access to care and utilization of services.
- Screening and prevention services.
- Infectious diseases.
- Chronic diseases.
- Behavioral health conditions.
- Geriatric conditions or services.

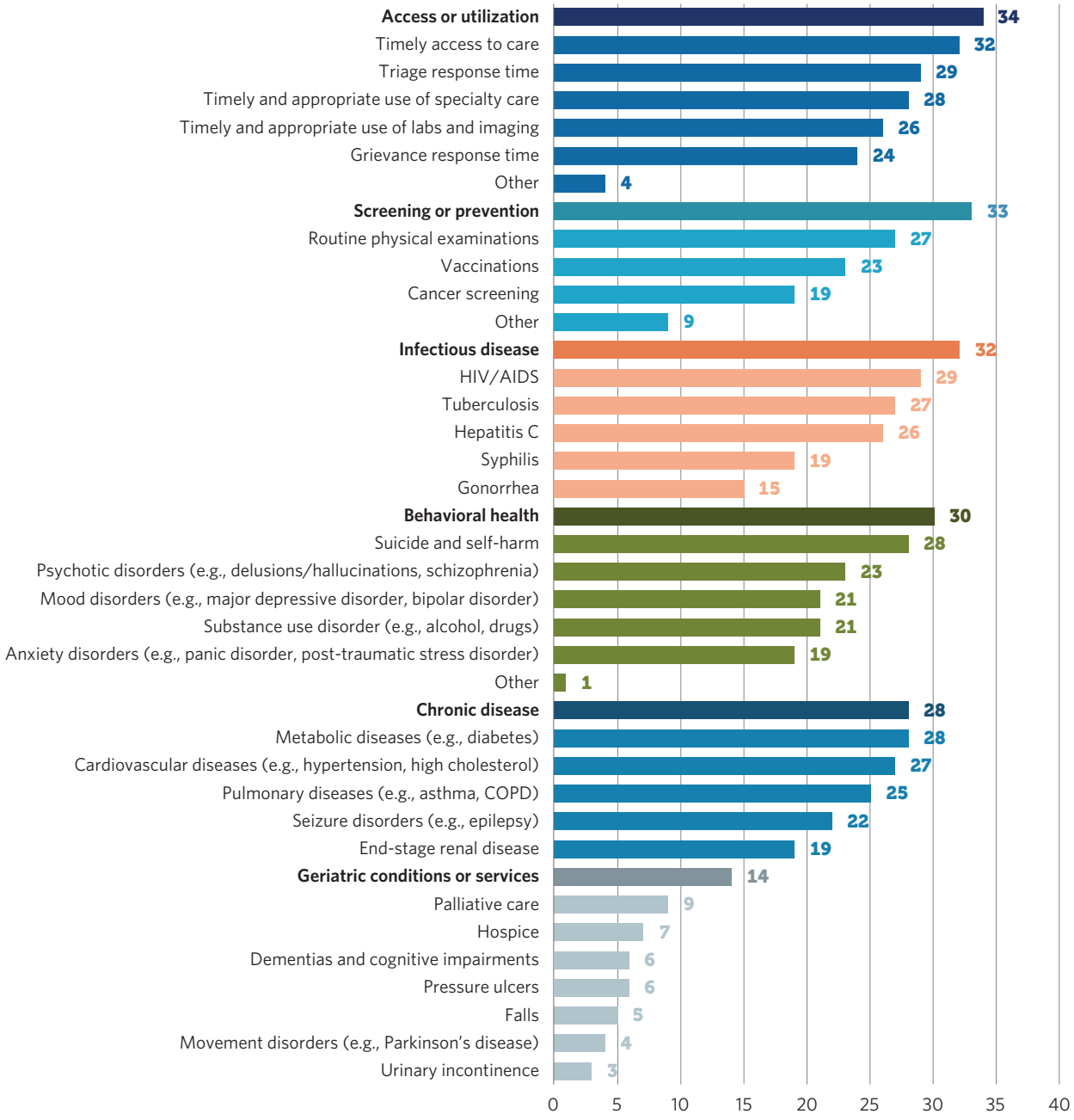
Two-thirds of the states with systems (24 of 35) reported covering every domain except for geriatric conditions or services; just 14 states include those in their quality monitoring. Twelve states (Arizona, Georgia, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, and Utah) reported monitoring every domain. Florida's system incorporated the fewest: only screening and prevention.

There was some variation with respect to sub-domains. For example, within the access and utilization domain, 32 states said they track measures related to access to care, whereas 24 look at grievance response time. Similarly, within infectious diseases, tuberculosis is monitored more widely (27 states) than gonorrhea (15 states). (See Figure 9.) (See Appendix C, Table C.13 for state-specific data.)

Figure 9

States' Use of Quality Measures Varies by Clinical Domain

Number of states tracking measures by clinical area, fiscal 2016



Note: This figure captures the 35 states that reported operating a prison health care quality monitoring system in fiscal 2016. Twelve states (Alaska, Connecticut, Delaware, Hawaii, Iowa, Montana, North Carolina, North Dakota, Oregon, Rhode Island, Virginia, and West Virginia) reported that their efforts did not meet Pew's criteria. Three states (Alabama, Kansas, and New Hampshire) did not provide Pew and Vera with data on their quality monitoring activities.

Facilitators and barriers to monitoring quality

When RAND asked its sample of state prison health care systems about the most significant facilitators to using their measures, several spoke to the availability of disease management guidelines and evidence-based practice guidelines. Health information technology, including electronic health records, was also mentioned, but most systems were still at an early stage of implementation.

States continue to coalesce around these facilitators, which they cite as significant to establishing and using a quality monitoring system. Numerous respondents to the Pew/Vera survey cited working information systems, signaling their maturation in recent years. According to one state official, having an electronic health record system is instrumental to assessing the care being delivered in prison facilities. "It's certainly revolutionized what I do for a living because I can sit down and push a couple of buttons and see who is having problems," the official said.

Though potentially valuable, an electronic health records system is not a precondition for monitoring quality. Overall, 17 states that reported having a quality monitoring system also reported not using electronic records. California, for example, posts a monthly online dashboard of performance indicators[132] produced by aggregating data from several primary sources, such as laboratory results, pharmacy information systems, and claims from hospitalizations and other off-site services. Some data are extracted from scanned health records. At the time of this research, the state was in the process of launching an electronic health records system.[133]

Other commonly referenced facilitators included accreditation and other standards, as well as employing or contracting with qualified, experienced staff committed and dedicated to monitoring quality.

In contrast, RAND found that scarce resources and competing priorities were common barriers. This is still very much the case. Tight staffing and related constraints, such as turnover, inexperience with monitoring quality, and few training opportunities, were far and away the most frequently mentioned barriers. Speaking about navigating staff shortages, one senior medical official said, "Care is always going to be primary, and sometimes the data gathering is going to be secondary out of necessity." Inadequate—or absent—electronic health records were also commonly mentioned. Community providers face similar challenges, struggling with appropriately allocating staff time to measurement activities, engaging staff in quality efforts, and fostering relevant expertise among front-line workers.[134]

Informing spending and management decisions

States reported a number of ways in which results from their quality monitoring systems informed budget and administrative deliberations.

Adjusting staffing and medication resources. Monica Gipson, director of health care services for the Indiana Department of Correction, said her state uses its system to monitor persistent care backlogs and, as necessary, add or redeploy staff. She also reported being better equipped to project future costs by closely monitoring infectious disease control, particularly for hepatitis C and HIV. Dr. Noel of Pennsylvania reported that his system prompted an increase in the number of psychiatric nurses in certain facilities after measures pertaining to psychotropic medication compliance signaled underperformance.

Prisons also reported using prevalence data, especially for infectious diseases, to inform staffing and budgeting decisions that affect treatment capacity. For example, by tracking the numbers of patients with chronic hepatitis C and HIV, Indiana reported that it was better able to predict the need for costly medications to treat these conditions.

Enforcing vendor requirements. All states that primarily outsource prison health care, whether they had a quality monitoring system or not, reported that they include standards in a majority of their requests for proposal and/or contractual agreements and use quality metrics to track compliance. A heavy majority enforce the standards with financial penalties. Some use both penalties and incentives, while others use neither. No state reported relying exclusively on incentive payments. (See Appendix C, Table C.14.)

Vermont's health services contract includes a set of performance metrics that are linked to monthly financial incentives and penalties. Two process measures monitored are:

- Percentage of patients who received routine medication within designated time frames among all patients due to receive routine medication.
- Percentage of patients who received an electrocardiogram after complaining of chest pains among all patients complaining of chest pains.

Indiana writes specific health care outcome metrics into its contract. For example, if less than 90 percent of diabetic individuals are found to be properly controlled, the contractor has one month to achieve compliance before being penalized.

Cost-effectiveness and cost containment. Michigan's quality monitoring system has been used to spotlight inefficiencies and initiate actions to improve the cost-effectiveness of care delivery, especially as it relates to pharmacy costs and treatments for cancer and hepatitis C. State officials credit successes, in part, to the inclusion of a financial analyst in its quality monitoring unit.[135]

The New Mexico Corrections Department said: "By monitoring the quality of care, we believe we can bend the cost curve. Managing care and delivering the care to the right [inmate] at the right time in the most efficient way reduces health care costs. If we proactively engage in health management, we can improve health outcomes and reduce need for sick calls, chronic care clinic visits, and medications, thereby reducing pharmaceutical spending."

No translation to spending and management decisions. While most states with quality monitoring systems pointed to ways in which they are linked to spending and management decision-making, some reported that they were not. Respondents either saw no applicable connection, or had not yet used the system in such a manner, highlighting one area in which the utility of monitoring quality may not be fully realized.

Few states codify and formally integrate systems into oversight and performance improvement

Even while 35 states reported operating a prison health care quality monitoring system that met the criteria set for this study—data-driven, state-overseen, broadly and consistently applied, ongoing—far fewer indicated that they take the additional steps of formally requiring quality monitoring and building in regular opportunities to incorporate findings into oversight and performance-improvement activities.

Establishing requirements provides clarity for what shape a quality monitoring system should take, including priority areas of focus, and bolsters consistency amidst personnel changes. Activating a recurring feedback loop wherein performance is overseen and strengths and weaknesses can be identified, analyzed, and addressed helps ensure that quality monitoring systems meet their ultimate objectives. These actions were measured in several ways:

- **Codification.** States met this condition if their quality monitoring system was required by state legislation, executive order, or regulation.

- **Making quality monitoring outcome data accessible for oversight.** States met this condition if their department of corrections routinely shares quality data with the legislature or the public.
- **Presence of a widespread continuous quality improvement (CQI) policy.** CQI is a structured process designed to continuously improve health care services by identifying problems, implementing and monitoring corrective actions, and assessing their effectiveness. States met this condition if they reported having a statewide CQI policy applied to all facilities.

Just six states (Florida, Nebraska, Nevada, New Jersey, New York, and Texas) were leading the way in generating much-needed answers, formally requiring them, and ensuring that decision-makers consider the information. (See Figure 10.) Florida, Nebraska, New York, and Texas have legislation on the books, whereas the systems of Nevada and New Jersey are governed by regulation. Each had a statewide continuous quality improvement policy in fiscal 2016. And each routinely shares outcome data with their legislature; Nevada, New Jersey, and Texas also make it public.

> "By monitoring the quality of care, we believe we can bend the cost curve."
>
> *The New Mexico Corrections Department*

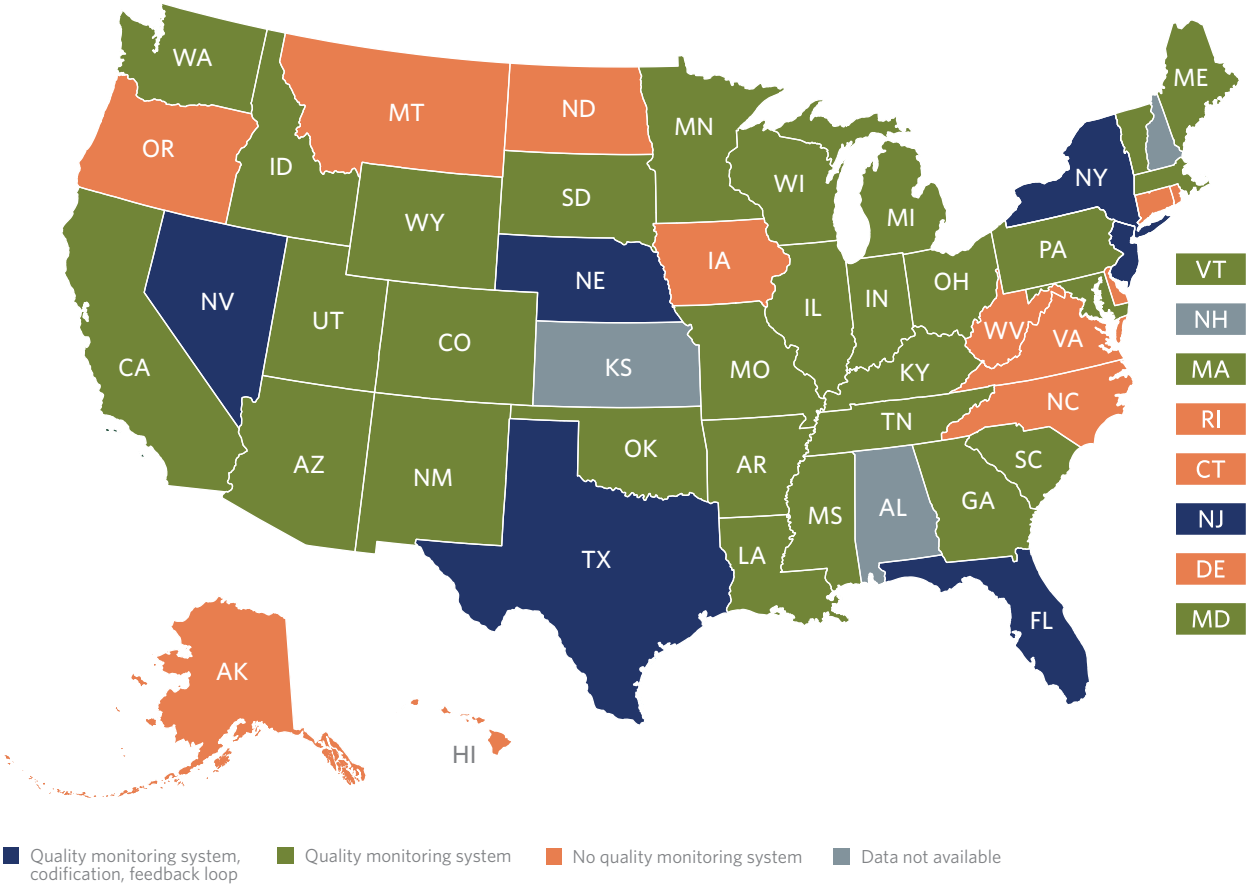
Texas' legislation requires its Correctional Managed Health Care Committee, a cross-stakeholder division of the Texas Department of Criminal Justice set up in 1993 to address rising costs and operational challenges,[136] to establish a procedure for monitoring quality.[137] The department must provide the results of this monitoring and any corrective action plans to the committee and the Texas Board of Criminal Justice, which also oversees the department. In turn, the committee is required to submit a quarterly report with data on expenditures and health care utilization and acuity to the governor and the Legislative Budget Board, a committee that develops budget and policy recommendations, completes fiscal analyses for proposed legislation, and conducts evaluations and reviews of state and local operations.[138] The committee is also required to share "quality assurance statistics and data, to the extent permitted by law," with the public.[139]

Nevada promulgated a regulation in effect since 2012 that established a Medical Quality Management Program, which the state describes as a "structured process to monitor and improve health care delivery to inmates." The state convened central office and institutional-level committees to collect and review data to measure the "effectiveness of the health care delivery system in the institution and if expected outcomes in patient care are achieved."[140]

Figure 10

Prison Health Care Quality Monitoring Across the United States

35 states have systems, six formally require and integrate them into decision-making and oversight



Note: Three states (Alabama, Kansas, and New Hampshire) did not provide Pew and Vera with data on their quality monitoring activities. See Appendix C, Table C.12 for state data.

Activities of states without quality monitoring systems

States without quality monitoring systems reported engaging in a wide range of related activities. (Some states with systems also take these steps.) Most frequently, respondents said that while there was no standardized statewide system, some facilities monitored quality. Slightly less frequent was for states and their facilities to have no systems at all.

Common monitoring activities included:

- Regular audits of practices and protocols.
- Maintaining accreditation.

- Continuous quality improvement programs, sometimes informed by episodic quality measurement.
- Site visits and medical and mental health chart reviews, a process in which senior staff retroactively scrutinize the care provided to a purposeful or random sample of patients.
- Inmate grievance investigations.
- Mortality reviews.

Inmate grievance investigations are distinct from tested and validated patient satisfaction or experience surveys, which are frequently used in the community.[141] Fewer than half of states reported using such instruments. Some correctional officials doubt that, owing to the circumstances of their incarceration, respondents would provide unbiased feedback.[142] But Connecticut and New Jersey, for example, have used them to positive effect.[143]

Mortality reviews, which involve peer review from a broad set of staff, are ubiquitous for states with and without quality monitoring systems. In 2014, illness caused 87 percent of deaths in state prisons, with cancer and heart disease accounting for more than half of all deaths.[144] Like hospitals, where death is a regular occurrence, prison health care systems take stock after a patient death to determine whether it could have been prevented. Such a process involves a review of the actions taken by the clinical team prior to the death in order to identify opportunities for improvement. Only Connecticut, North Dakota, Virginia, and Washington do not formally require such a review, though they do investigate deaths on an informal basis. Eighteen states reported having a standard definition of medical preventability, with the rest solely relying instead on a peer-review process[145] to identify potential problem areas associated with care and undertake corrective action.

Some states have found that mortality reviews trigger important process changes that could save lives or otherwise improve patient outcomes. For example, one noted that, while it had procedures in place to put inmates under suicide watch when denied parole by the parole board, no such procedure existed for when such decisions came from courts. This unfortunately resulted in an inmate committing suicide after a judge's decision. Following this death, the state has made efforts to communicate proactively with the courts regarding such decisions so that affected inmates can be put under greater surveillance.

Broad agreement over virtues; less so over barriers and plans

A majority of states without a quality monitoring system agreed or strongly agreed that establishing one is necessary to achieve at least an adequate level of quality; would improve the quality of care provided in their system; and would improve the states' understanding of the value of their prison health care spending. Steve Shelton, former chief medical officer of the Oregon Department of Corrections, put it this way: "I can tell the legislature exactly where every penny went, how much we're paying for generic medications, what percent [is spent] on generics, how much we're spending on per patient, per month, what went to outpatient hospitals, how much went to staff. I can tell them where the buck went. But without outcome and quality monitoring systems, I can't tell them what they get for that buck."[146]

> "I can tell them where the buck went. But without outcome and quality monitoring systems, I can't tell them what they get for that buck."
>
> **Steve Shelton,** *former chief medical officer of the Oregon Department of Corrections*

States were more ambivalent with respect to barriers and plans, with some of the differences breaking down along delivery system lines. States without monitoring systems that primarily rely on contractors to provide care agreed that they were held back by the lack of national guidelines or a standard for quality monitoring, whereas states that provide care directly generally did not share this view. Likewise, contracted-provision states were far less likely to see cost as a primary roadblock. There was wider agreement over inadequate data infrastructure serving as a hindrance.

Looking to the future, most direct-provision states had plans underway to establish a system. The opposite was true of contracted-provision states, all of whom said that monitoring quality was the responsibility of contracted vendors and that the department of corrections monitored their performance in a way that did not meet this study's definition of a quality monitoring system. Nevertheless, like their direct-provision counterparts, a majority agreed or strongly agreed that establishing a system is necessary to achieve at least an adequate level of quality; would improve the quality of care provided; and would improve the states' understanding of the value of their prison health care spending.

A Note on Conflating Quality Monitoring With Actual Performance

In this study, if a state does not have a monitoring system, its prison health care—whether provided directly or procured—is not necessarily of poor quality. Conversely, having a system does not necessarily mean that a state is providing high-quality care. States were assessed on whether they monitor quality systematically, not on the merits of their systems nor the quality of the care they provide.

Protecting Investments and Progress Through Care Continuity

At least 95 percent of those in state prisons eventually leave;[147] more than half a million individuals do so in a typical year.[148] So prisons and communities are constantly reintegrating returning residents, a disproportionate share of whom have a chronic disease, including a behavioral health condition or an infectious disease. Therefore their prospects for a successful re-entry are affected by the seamlessness of their health care transition.

The time immediately following release can be especially dangerous and even deadly.[149] Overdose is the greatest health risk,[150] often because—it is hypothesized—individuals lose their tolerance for opiates during periods of absolute or relative abstinence.[151] Suicide and deaths related to cardiovascular disease are common as well.

In addition to concern for individuals' well-being, prison health care systems and outside communities share a strong interest in facilitating coordinated care continuity at the time of release due to the significant sums devoted to incarceration, the public health and safety implications of prevalent conditions, as well as the likelihood that poorly managed chronic diseases can result in avoidable and costly emergency room visits and hospitalizations.[152]

> Access to quality health care post-release is an important public health issue ... and can help lower health care costs, hospitalizations and emergency department visits, as well as decrease mortality and recidivism for justice-involved individuals."
>
> *U.S. Department of Health and Human Services*
>
> Source: U.S. Department of Health & Human Services, "New Medicaid Guidance Improves Access to Health Care for Justice-Involved Americans Reentering Their Communities" (April 28, 2016), https://enewspf.com/2016/04/28/new-medicaid-guidance-improves-access-to-health-care-for-justice-involved-americans-reentering-their-communities

If treatment is not continued outside prison gates, the recidivism-reduction and public health effects of even well-designed and -executed health programs delivered in facilities can be undermined. For example, being uninsured upon release—true of nearly 80 percent of individuals in past years, according to some estimates[153]—can serve as a major barrier to further care and is predictive of recidivism and associated with shorter times to re-incarceration.[154] Similarly, in-prison treatments for substance use disorders and mental illness deliver better and more durable results when patients are handed off to community providers.[155] Likewise, case management for high-risk cohorts can help avert emergency department utilization.[156] And HIV-infected individuals whose antiretroviral therapy is interrupted after release can develop higher viral loads that increase their risk of disease progression and transmission to others.[157]

Continuity of care helps ensure that the benefits of treatment and the investment of resources devoted to stabilizing individuals' health while they are incarcerated are preserved and not squandered upon release—only to be spent again and again when inmates cycle back through the corrections system or turn up in emergency rooms. Nevertheless, discharge planning from state prisons has historically been sparse or nonexistent, with only 10 percent of departing persons receiving any at all as recently as 2006.[158] But this is beginning to change. States are increasingly recognizing its benefits and importance—alongside robust community health systems to receive those individuals.

Pew and Vera surveyed senior medical staff in state corrections departments to better understand the type of care continuity services offered, the timing of services, which populations, if any, are targeted, the nature of interagency and other cross-stakeholder partnerships, and associated outcomes. Every state except Alabama, Kansas, and New Hampshire provided data. Care continuity services can also be applied when individuals enter prison, are transferred among prisons, or are transferred between prison and an off-site health care provider, but this study focused on those pertaining to discharge.

Types of care continuity services

State prison systems, sometimes in partnership with other state agencies and community stakeholders, take a variety of steps to smooth re-entry from a health care standpoint. (See Figure 11.) Most fundamentally, many make an effort to help individuals acquire health coverage, which serves as a vehicle for accessing care. Because most formerly incarcerated individuals experience at least a temporary period of unemployment, and because few have the resources to pay for commercial insurance, coverage often takes the form of Medicaid. Additional actions include helping people maintain critical medication, connect with providers on the outside, and learn about how to safely manage their disease(s).

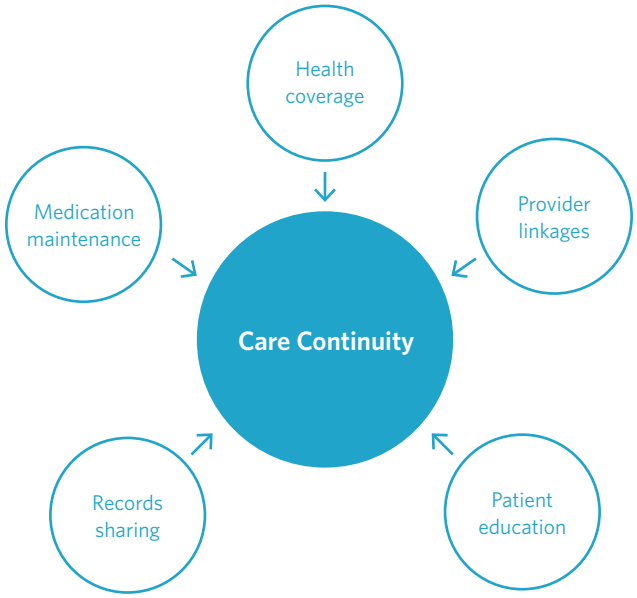
Many systems reported providing most or all of the surveyed services, though some pointed to relatively few. (See Appendix C, Table C.16.) Likewise, some provide their full suite of services to every returning resident, while others employ a more targeted approach, often prioritizing those with infectious diseases or behavioral health conditions.

Partnerships are common with colleagues in Medicaid and behavioral health agencies, as well as parole officers, who can serve as de facto case managers. Behavioral health agencies administer services funded in large part by the federal Community Mental Health Services Block Grant and the Substance Abuse Prevention and Treatment Block Grant.[159] These play a particularly important role in serving the uninsured.

Information sharing can also be a useful tool. As with anyone switching doctors, care continuity can be improved after release by the transfer of medical records between prison health care systems and community providers. Records sharing—whether paper-based or through electronic means—can save time and money by conveying critical patient information that improves the likelihood that successful treatment plans are continued without delay or disruption.

Figure 11

Facets of Care Continuity Planning



Medicaid enrollment

Health insurance is a key ingredient of access to quality care for all Americans, including individuals involved with the criminal justice system. But many in prison have historically returned to their communities uninsured because they were initially without access to employer-sponsored insurance, unable to afford insurance in the individual market, or did not qualify for Medicaid.[160] This erected a barrier to consistent care and threatened to strain the resources of providers who treat the medically indigent.

States have never been precluded by inmates' incarceration status from enrolling them in Medicaid,[161] the primary means through which they provide health care access to low-income and other vulnerable populations. However, most inmates could not enroll in years past because, as nondisabled adults without dependent children, they did not meet many states' categorical eligibility criteria despite their low income. The Affordable Care Act (ACA) created an opportunity for states to change this situation by expanding eligibility criteria, removing a key barrier to enrolling individuals in prison or keeping them enrolled during incarceration with suspended coverage.

The federal government has strongly urged states and localities to incorporate Medicaid enrollment into their correctional discharge planning efforts. In April 2016 guidance to states, the U.S. Department of Health & Human Services (HHS) noted that Medicaid "connects individuals to the care they need once they are in the community and can help lower health care costs, hospitalizations and emergency department visits, as well as decrease mortality and recidivism for justice-involved individuals,"[162] people under community supervision (e.g., parole), or incarcerated in prisons or jails. The Centers for Medicare & Medicaid Services (CMS) encouraged "correctional institutions and other state, local, or tribal agencies to take an active role in preparing inmates for release by assisting or facilitating the application process prior to release."[163]

Richard Frank, former HHS assistant secretary for planning and evaluation, said that health coverage after release is "critical to our goal of reducing recidivism and promoting the public health."[164] Former director of national drug control policy Michael Botticelli drew an even bolder point: Immediate Medicaid coverage upon release "can mean the difference between ... life and death."[165]

Nearly all responding states reported to Pew and Vera that, as part of their re-entry planning in fiscal 2016, potentially eligible inmates were assisted with applying for Medicaid in some or all facilities. Alaska, Hawaii, Oklahoma, and South Dakota were the only exceptions.

States' collective efforts are having a measurable effect. Researchers at Johns Hopkins University found that the uninsured rate for adults in the community with a substance use disorder and with prior-year involvement with the criminal justice system (having been arrested and booked or on probation or parole in the previous 12 months) fell from a consistent 38 percent from 2004-13 to 28 percent in 2014, the first year of the ACA Medicaid expansion. The change was mainly due to increased Medicaid enrollment.[166] These new enrollees are likely to use their coverage to access care. A study in Massachusetts found that, after the state expanded its Medicaid eligibility and began enrolling returning inmates and connecting them with a primary care physician in their community, 84 percent of enrollees used at least one covered service, including medical care, behavioral health treatment, and prescription drug medication.[167]

(See Pew's August 2016 brief on how and when Medicaid covers people under correctional supervision for additional explanation of federal guidelines, their practical impact for state and local policymaking, and how some jurisdictions have navigated this terrain.)

Pairing enrollment with managed care discharge planning

Some states contract with Medicaid managed care organizations (MCOs) to deliver benefits and additional services to certain patients for a negotiated per-enrollee payment. The Ohio Department of Rehabilitation and Correction partners with the state's Medicaid agency on enrollment and facilitates selection of a Medicaid managed care plan 90 days before release. Additional care management services are provided to enrollees with "chronic risk indicators," defined as having hepatitis C or HIV, being pregnant, or having been diagnosed with two or more of the following: a chronic condition, a mental illness, or a substance use disorder. The medical histories of these individuals are shared with managed care staff who develop pre-release transition plans, review and

refine them with enrollees via videoconference, and follow up within five days of release.[168] Corrections officials believe Medicaid coverage and these services will help those leaving prison more successfully access appropriate medical, mental health, and substance use disorder services, which they view as having the potential to reduce recidivism.[169]

Louisiana launched a similar effort in January 2017, with a target population of those exiting with a serious mental illness, a severe or moderate substance use disorder, cancer, HIV, or a disability. In addition to pre-release case management from its managed care organizations, the state also leverages the influence and contact parole officers have with returnees.[170]

These states are somewhat unusual. Even as a large and growing majority of states contract with Medicaid MCOs,[171] only Arizona, Louisiana, Ohio, Utah, and South Carolina reported requiring their MCOs to provide care continuity services. This may represent a missed opportunity. Because payments to MCOs are fixed, they share an incentive with the state to keep individuals' health stabilized, thereby averting avoidable hospitalizations, public health risks, and recidivism. (See Appendix C, Table C.17 for state-by-state data.)

Enrollment programs defined by state Medicaid policies

Whom departments of correction can enroll—and therefore how many—as well as the process they use is controlled in key ways by state Medicaid policies.

Eligibility

The most straightforward and significant is eligibility parameters. In the 31 states that have elected to expand their criteria in accordance with the ACA as of the writing of this report, nearly all imprisoned persons are eligible for the program because their incomes fall below the threshold. (See Appendix C, Table C.17.) In states that have not expanded, fewer are eligible for the program, and those who are—typically those in traditional pregnant, aged, blind, or disabled categories—do not trigger the enhanced federal reimbursement. This may influence the scope of enrollment activities, though 12 non-expansion states (Georgia, Louisiana,[172] Maine, Mississippi, Missouri, Nebraska, North Carolina, South Carolina, Tennessee, Virginia, Wisconsin, and Wyoming) reported that all of their prisons facilitate enrollment for eligible individuals nearing release.

Application process

Accepted application documentation is a second variable. States set rules about necessary documentation (such as a driver's license or a birth certificate, as well as proof of income), which can pose a barrier for inmates who do not have access to some or all of them. Nineteen states reported addressing this by permitting alternative documentation. In Kentucky, Montana, New York, South Carolina, Texas, and Utah, a state-issued inmate ID is accepted. Colorado, North Carolina, and Washington use their internal correctional system databases, rather than a physical form of ID.

Finally, in 17 states, the majority of prison facilities make use of "presumptive eligibility." This is a policy that allows an individual to be temporarily enrolled in Medicaid prior to an official determination of eligibility based on key pieces of information. For example, in Connecticut, applicants released unexpectedly complete a condensed application and receive a voucher, which allows them to at least fill prescriptions while their full application is being reviewed.[173] With only nine states (Colorado, Louisiana, Massachusetts, Michigan, Minnesota, New Mexico, Ohio, West Virginia, and Wisconsin) reporting that enrollees typically leave their facilities with a Medicaid card in hand (a number of respondents said the corrections department does not track when Medicaid enrollment is completed), presumptive eligibility can be a useful tool for expediting coverage. (See Appendix C, Table C.17 for state-by-state data.)

Suspending or terminating coverage

CMS has long encouraged states not to terminate coverage for enrollees during their time in correctional facilities, but rather to temporarily suspend it until release or until enrollees receive off-site inpatient care. Suspension allows coverage of all Medicaid services to resume seamlessly upon re-entry to the community.

Twenty-four states reported that Medicaid enrollment is generally suspended—at least temporarily—when a person enters prison. Seven reported generally suspending coverage for a specific time period, such as the first 30 days or the first year of incarceration. An additional 17 states reported generally suspending coverage for the full duration of time spent in correctional facilities. Twenty-two states said they generally terminate coverage, including 13 (Arkansas, Colorado, Delaware, Hawaii, Illinois, Iowa, Maryland, Michigan, Minnesota, Nevada, North Dakota, Pennsylvania, and Washington) that had adopted the ACA expansion as of the writing of this report.[174] (See Appendix C, Table C.17 for state-by-state data.)

Federal support is available to assist states with upgrading Medicaid eligibility and enrollment technology if their systems hinder or prevent them from suspending eligibility or coverage for incarcerated individuals.[175]

Maintaining medications

As in the community, prescription drugs play an important role in the health care delivered in prisons. Treating prevalent conditions can necessitate use of medications, and continuation of these regimens can be critical to preventing relapse and other adverse outcomes. Therefore, states take action to help ensure that there is no gap or drop-off after release. Most commonly, 45 states reported providing a short supply of medication—usually 14-30 days' worth—that can serve as a temporary bridge until people can see a prescribing provider in the community. In determining an appropriate quantity to release, prison health care systems weigh adequacy against cost, as well as the potential for marketable medications to be diverted or sold.

To extend the duration, 30 states reported that they provide a prescription along with the bridge supply. The Missouri Department of Corrections, for example, provides a 30-day supply. If the person runs out before establishing a community provider, he or she can receive up to two 30-day refills from a nonprofit pharmacy with which the department partners.[176] (See Appendix C, Table C.16 for state-by-state data.)

Linking to providers

Ultimately, health coverage and temporary medication supplies are of limited utility if individuals do not connect with necessary providers. So states work to form such linkages in various ways, ranging from passive referrals to actively facilitating opportunities for doctors to communicate with their future patients before release. Most states reported offering referrals to both medical and mental health providers, while somewhat fewer do so for substance use treatment clinics. Referrals can be as simple as advising people to seek care in the community, or going further to provide a current list of providers that corrections officials know will see people newly out of prison.

Some states try to schedule appointments, though they can face challenges, such as identifying offices willing to see uninsured patients—especially in places where individuals do not qualify for states' Medicaid programs—and limited availability, even for the insured. Officials reported that success can sometimes be community-dependent, reflecting capacity differences and other variables. Having dedicated discharge planners who develop familiarity and relationships with providers across the state can mitigate these barriers.

Pre-release sessions are rarer, but do occur. In Maryland, for example, HIV-infected individuals meet with outreach workers from community clinics before release in an effort to improve the likelihood that they will continue receiving their medication without interruption.[177] (See Appendix C, Table C.16 for state-by-state data.)

Records sharing

Records sharing can save time and money by relaying medical histories, diagnoses, current medications, and laboratory test results, and helps prevent the delay or disruption of successful treatment plans. Community providers who see patients after they have left the California Department of Corrections and Rehabilitation told researchers of the RAND Corp. that a lack of medical records weakened care continuity. Relying on individuals to provide a detailed medical history was found to be a poor substitute because, as one provider noted, in general, "patients are not good historians."[178]

Twenty states reported to Pew and Vera that they routinely provide records to individuals leaving prison or to their community provider. Some go further by enabling multiple agencies and providers to access at least some information, mindful of the Health Insurance Portability and Affordability Act's (HIPAA) privacy and consent requirements.[179] Correctional health providers in Delaware query information from a statewide health information exchange (HIE), for example, and the state is working on making correctional health records available to outside providers as appropriate.[180] Similar efforts are underway to connect the Kentucky Department of Corrections with the state's robust HIE.[181] And electronic health records in Indiana, Iowa, New Jersey, and Vermont are interoperable with certain community providers, meaning that at least some practitioners outside the prison walls can use electronic health information populated by prison staff. (See Appendix C, Tables C.16 and C.19 for state-by-state data.)

Teaching skills for self-management of health

All people, whether in prison or not, play a large role in managing their own health. Hypertension and diabetes control requires healthful eating and exercise. Diabetic patients sometimes monitor glucose levels and, if necessary, self-administer insulin. Controlling HIV requires following a precisely scheduled medication regimen. To equip individuals with skills to successfully manage their conditions, 40 states reported offering general educational opportunities prior to release.

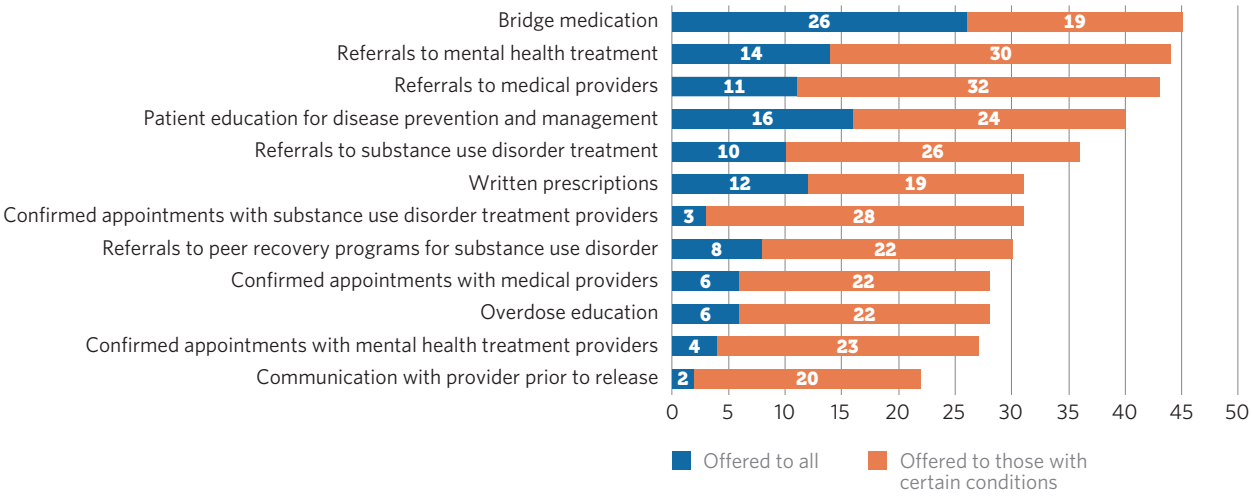
However, just over half (29 states) provide overdose prevention classes. These can be important, as reduced tolerances after periods of abstinence can lead to inadvertent overdose and death. Effective drug addiction treatment during and after incarceration can help prevent reuse altogether. Both approaches may be important tools as states work to combat their opioid crises. (See Appendix C, Table C.16 for state-by-state data.)

Targeting high-risk populations

Given the organizational challenges of coordinating care continuity upon re-entry, many states prioritize individuals with particular conditions, rather than offering the same suite of services to everyone. (See Figure 12.) Services are commonly targeted to individuals with HIV and AIDS, hepatitis C, substance use disorders, and mental illnesses. Prioritization can take the form of either providing a baseline set of services to all as appropriate as well as additional actions for a select group (26 states), or only providing care continuity services to inmates with certain diagnoses (14 states). (See Figure 13.)

Figure 12

Number of States Offering Select Care Continuity Services, Fiscal 2016



Note: Forty-six states provided data on their care continuity services to Pew and Vera.

States represented in the blue bars do not **provide** these services to every inmate. For example, appointments for mental health or substance use disorder treatment are scheduled as appropriate. Rather, these states reported that they **offer** these services to every departing inmate, as appropriate, whereas states represented in the orange bars offer these services to only those with certain conditions.

HIV and AIDS

Most of the states that reported prioritizing particular populations focus at least on inmates with HIV/AIDS. Centers for Disease Control and Prevention (CDC) guidelines recommend that patients in this group receive confirmed appointments with community clinicians as well as a supply of medication, a copy of their medical records, and enrollment in safety-net programs or a medication assistance program, as applicable.[182] Without adequate medication, individuals' health deteriorates and they can become more infectious, increasing the risk of transmission to others.

Still, a 2012 survey by Abt Associates and Brown University found that only eight of 43 responding prison health care systems followed the CDC guidelines.[183] Even with assistance, it can take more than 90 days post-release for an inmate to have a first appointment.[184]

Florida, which has one of the highest rates of HIV infection in the country,[185] is one state with a formal policy to follow CDC guidelines. By law, the state must educate HIV-infected incarcerated individuals about preventing transmission and the importance of receiving follow-up care and treatment, complete written discharge plans including information on the county health department and nearby HIV care, and provide a 30-day supply of previously prescribed HIV/AIDS medication.[186]

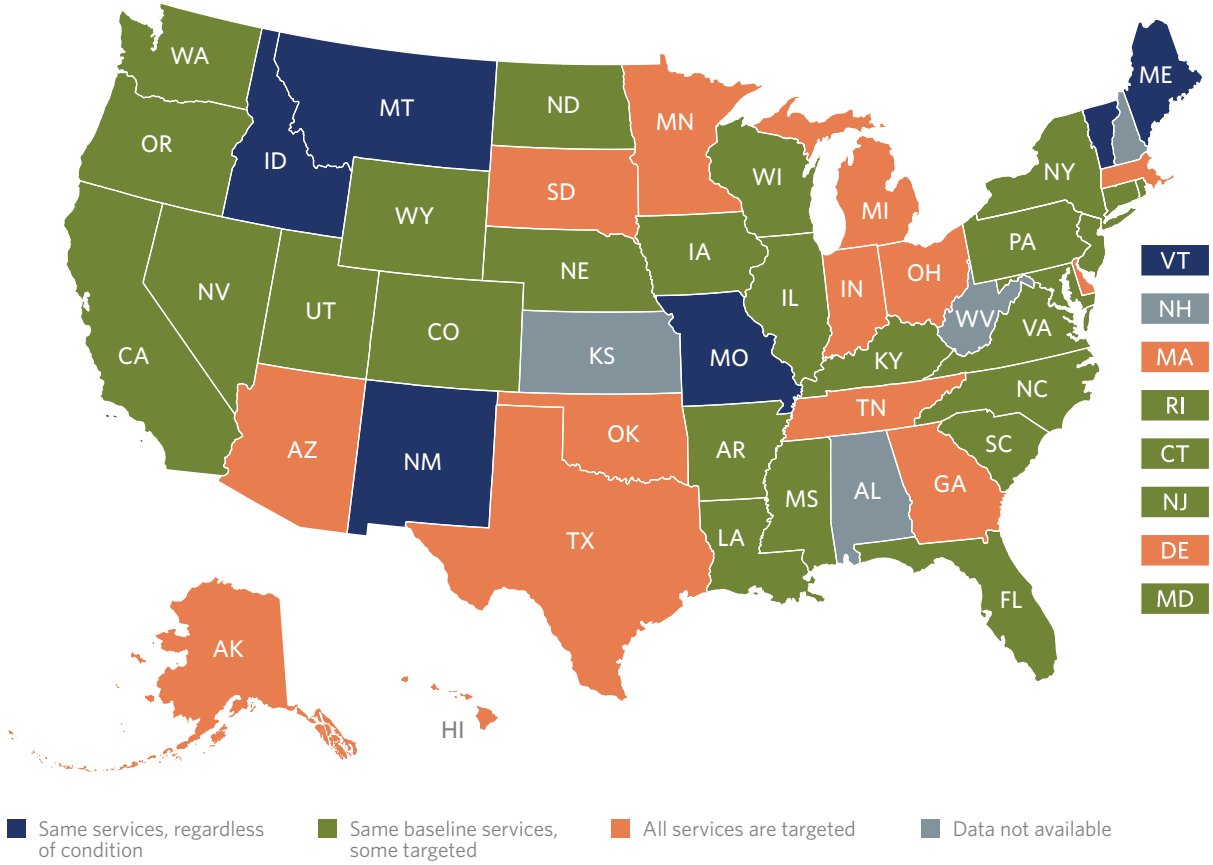
Funding is available from the federal Ryan White HIV/AIDS Program to help states pay for such programs. Among other elements, this program provides funding to states to cover medical care, medication, and support services to people with HIV/AIDS.[187] Through the support services provision, states can pay for case management for patients leaving prisons. These patients can also receive medications through Ryan White funds once they are no longer incarcerated, a crucial benefit for those who do not qualify for Medicaid or other health insurance.

Virginia has used Ryan White funding to create a care coordination program. Care coordinators work with Department of Corrections health care providers and community-based organizations to ensure that individuals' needs are met, including access to medication, primary care, and support services. Clients of the program are followed for 12 to 18 months.[188]

Figure 13

Care Continuity Services Stratified by Condition in Many States

Targeting approach by state, fiscal 2016



Note: Four states (Alabama, Kansas, New Hampshire, and West Virginia) did not provide Pew and Vera with data on their care continuity services. (See Appendix C, Table C.15 for state-by-state data.)

Hepatitis C

As with HIV/AIDS, coordinating treatment for individuals with hepatitis C can improve their prospects and help prevent spread of the disease.[189] A key difference, however, is that hepatitis C is curable. Transformative advances in drug treatments have made them more effective and easier for patients to take. For decades, the only option was interferon-based injections, which made patients feel ill, required up to a year of treatment, and cured only 40 to 50 percent of recipients. New pill-based therapies have doubled the cure rate and shortened the duration of treatment to three months.[190]

However, the drugs are expensive,[191] and they are provided in a course of therapy that, if interrupted, risks leading to a medication resistance. For both reasons, state prisons are hesitant to start someone on the drugs unless he or she will be able to complete them before departing, making them less likely to provide bridge medications for the treatment of hepatitis C than other illnesses. This makes referrals and scheduled appointments especially important.

Substance use disorders

Twenty-three states reported prioritizing services for individuals diagnosed with a substance use disorder. Some states use federal funds from the Residential Substance Abuse Treatment for State Prisoners (RSAT) program to help fund care after release. Run by the Department of Justice, this program administers grants to states to provide treatment in correctional and detention facilities and community-based services for probationers and parolees.[192]

Medication-assisted treatment (MAT)

States can also provide medication-assisted treatment (MAT)—a combination of psychosocial therapy (such as counseling or cognitive behavioral therapy) and U.S. Food and Drug Administration-approved medication (methadone, buprenorphine, and naltrexone)—to help inmates stay off drugs as they return to the community. Research shows that this is the most effective intervention to treat opioid use disorder and is more effective than either behavioral interventions or medication alone.[193] MAT significantly reduces illicit opioid use compared with nondrug approaches,[194] and increased access to these therapies can reduce overdose fatalities.[195] By reducing risk behaviors such as injection of illicit drugs, it also decreases transmission of HIV and hepatitis C.[196]

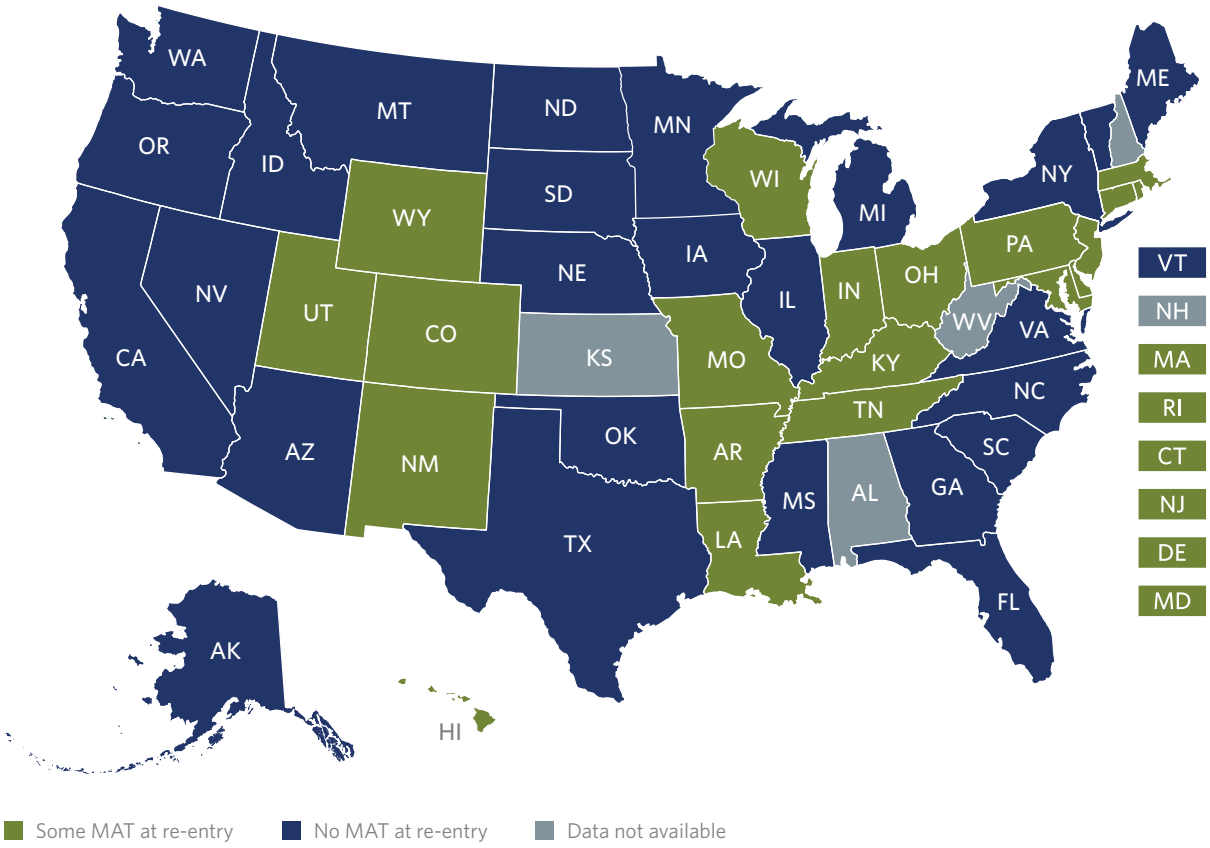
Emerging evidence has shown MAT to be effective for individuals leaving prison. One study found that naltrexone, which blocks the effect of opioids without producing physical dependence, made relapse less likely.[197] Another found that methadone and counseling post-release reduced heroin use and participation in criminal activity for at least six months.[198] Similar results have been seen with buprenorphine treatment.[199]

Nevertheless, just 20 states reported facilitating access to MAT upon re-entry. (See Figure 14.) Fewer provide the medication directly—13 states make available a supply of naltrexone; three provide a supply of buprenorphine.[200] This may reflect, in part, the newness of the medications. A number of states noted that they were exploring the issue and/or developing a program. Others reported that relatively few individuals in their prisons had opioid addictions. Expense may be a barrier for some, but federal assistance is available. States can use RSAT funds to pay for this treatment, and the federal government has reportedly made dedicated funds available to some states to help them create naltrexone programs for exiting offenders.[201] (See Appendix C, Table C.18 for state-by-state data.)

Figure 14

Few State Prisons Facilitate MAT Upon Re-Entry

MAT policy by state, fiscal 2016



Note: A state is shown as facilitating medication-assisted treatment at re-entry if it provides a prescription, a supply of medication, an injection of naltrexone, or a referral to a prescriber.

Mental illnesses

Twenty-nine states reported that they prioritize re-entry services for individuals with at least one mental health disorder. Each pays particular attention to those with psychotic disorders (delusions/hallucinations, schizophrenia), and 24 also prioritize mood disorders (major depressive disorder, bipolar disorder). Re-entry services were less likely to be prioritized for those with personality or anxiety disorders.

Among all reporting states—those that stratify care continuity services and those that do not—referrals to mental health treatment in the community is common, with 44 states reporting that they offer this service to at least some mentally ill persons. Providing confirmed appointments is less common (28 states). (See Appendix C, Table C.16 for state-by-state data.)

The Louisiana Department of Public Safety and Corrections has made the provision of confirmed appointments such a priority that one of its strategic plan performance indicators is the percentage of soon-to-be-released

individuals on psychotropic medication who have been scheduled for a follow-up appointment in the community.[202] But their success can be complicated by a scarcity of capacity. "We do such good work in diagnosing, identifying, screening, assessments, treatment, stabilizing, but most of them get released, and connecting them to the community providers, to ensure continuity of care, is a very challenging task," said Raman Singh, medical director for the department.[203]

Since 2006, the Oklahoma Department of Corrections has partnered with the state's Department of Mental Health and Substance Abuse Services to operate a targeted case management program for seriously mentally ill individuals, assisting their transition to community-based services. A state assessment found that, after 36 months, recipients were less likely to return to prison or have an inpatient hospitalization, and more likely to use outpatient and other community services and be enrolled in Medicaid.[204]

New York requires such planning by law. All inmates who received mental health treatment in the state correctional system within three years of parole must receive discharge planning. If necessary, they must also receive an appointment with a prescribing provider and bridge medications that will last until that provider can be seen.[205]

As part of California's parolee program for the mentally ill, participants receive tailored release planning before leaving the prison and are connected to treatment in specialized parole outpatient clinics, which provide medication management, group therapy, individual therapy, and case management. Those who visited the clinic at least once reduced their odds of returning to custody in one year by more than half.[206]

In Colorado, seriously mentally ill parolees are assigned to behavioral health clinicians who work with them to ensure that their psychiatric, substance use, and housing needs are addressed. These specialists meet with their clients at parole offices, provide case management, make referrals to service providers, help navigate obstacles to obtaining medication, and assist with mental health crises.[207]

Including parole officers in care continuity

As the overall health profile of incarcerated individuals has deteriorated, health care has become an increasingly important element of parole officers' portfolios. This is especially true for mentally ill parolees. "A lot of the patients, especially our mental health patients, don't necessarily have family … that wants them to come home. So they'll go to a shelter. But then the probation and parole officer will be the individual that actually takes the … patient to their appointments, helps them get their medication, and kind of helps them get re-established in the community," said Terri Catlett, deputy director for health services of the North Carolina Department of Public Safety.[208]

In some cases, this has required parole officers to adapt to their broadening roles. In Alaska, parole officers who work with mentally ill individuals required to seek treatment as a condition of their release receive extensive training on how to interpret and respond to setbacks. Laura Brooks, director of Health & Rehabilitation Services for the Alaska Department of Corrections, said that success requires understanding that "just because this person didn't show up for two … appointments in a row, doesn't mean you have to issue a warrant for him," because he might be experiencing a mental health crisis rather than simply being noncompliant.[209]

Overall, staff from prisons in 29 states reported working with community supervision staff in some health care continuity fashion.

Conclusion

Policymakers in every state are charged with thinking about and searching for ways to make their constituents safer and healthier, and to spend taxpayer dollars more prudently. Those are complicated, multifaceted responsibilities. But it is clear that prison health care systems have an important role to play in these efforts.

With state prisons housing so many individuals with extensive health conditions—some of which threaten to spread to others inside and outside prison gates or contribute to costly and dangerous recidivism—and with nearly all of them destined to return to their communities, the manner in which care is provided in prison and handed off after release carries high stakes. High-performing systems require good data on what is spent and the factors driving costs, what outcomes are achieved, and whether the returns on investments are preserved—along with processes to continuously use these data to make enhancements.

This study provides and points to some of the information policymakers and administrators need to proactively make the most of opportunities and avert the harmful and expensive consequences of missteps. Despite states' uniform interests, their provision of prison health care—and the material they produce to inform decision-making—is characterized by significant variation. Going forward, all stakeholders will need to do more to better understand whether this variation reflects meaningful discrepancies in value, and what can be done to improve cost-effectiveness.

Appendix A: Methodology

To collect data for this report, The Pew Charitable Trusts conducted two surveys in 2015-16 in partnership with the Vera Institute of Justice. These instruments were developed with the guidance of a panel of advisers:

- **B. Jaye Anno,** Ph.D., co-founder of the National Commission on Correctional Health Care and correctional health care consultant.
- **Jack Beck,** J.D., director of the prison visiting project at the Correctional Association of New York.
- **Ingrid Binswanger,** M.D., M.P.H., M.S., senior investigator, Kaiser Permanente Institute for Health Research, Denver, and associate professor, University of Colorado School of Medicine.
- **Cheryl L. Damberg,** Ph.D., distinguished chair, health care payment policy, and principal senior researcher, RAND Corp.
- **Warren J. Ferguson,** M.D., professor and vice chair, community health, department of family medicine and community health, and director of academic programs, health and criminal justice program, University of Massachusetts Medical School.
- **John Pulvino,** P.A., senior director, quality and outcomes, University of Texas Medical Branch, Correctional Managed Care.
- **Emily Wang,** M.D., M.A.S., associate professor, Yale School of Medicine, and co-founder, Transitions Clinic Network.
- **Brie Williams,** M.D., M.S., professor of medicine, division of geriatrics, and founder and director, criminal justice and health program, University of California, San Francisco.

The survey instruments were also pretested with pilot states. Feedback from these respondents helped improve the clarity, relevance, and usability of the instruments.

All states except New Hampshire participated in the first survey, and all except Alabama, Kansas, and New Hampshire participated in the second. Repeated invitations to participate were extended to these states over several months.

Survey I: Spending, demographics, delivery systems, and staffing

The first survey, addressed to senior budget staff of state departments of corrections, queried them on their:

- **Total and disaggregated expenditures** for health care provided to adults under the jurisdiction of the state in fiscal 2010-15.

  Individuals under state jurisdiction are under the state government's legal authority, regardless of where they are housed. Such individuals may be in the custody of a local jail, another state's prison, or a contracted correctional facility (e.g., a privately owned prison). Expenditures were assumed to be inclusive of all settings unless respondents indicated otherwise. (See Appendix B: State data notes.) Per-inmate spending calculations accounted for all such individuals as appropriate.

  State probationers and parolees—as well as individuals under state custody but under the jurisdiction of a locality, another state, or the federal government—were excluded.

  Health care spending—funded by state or federal funds—included 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 departments used to track them.

States in which the corrections system is a combined jail-prison system—sometimes called a unified system—were asked to provide the cost of health care for both pretrial and sentenced inmates under state custody. These states were Alaska, Connecticut, Delaware, Hawaii, Rhode Island, and Vermont.

- **Prison population demographics** for fiscal 2010-15, including:
  - The average daily population of those under the custody of the state corrections department, private prisons, and local jails, respectively. These subtotals were summed to reflect the total average daily population under the jurisdiction of the state corrections department.
  - The proportion of those under the jurisdiction of the state corrections department who were ages 40-44, 45-49, 50-54, 55-59, 60-64, and 65 and older.
- **Health care delivery system** in fiscal 2015. Departments were classified as:
  - 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 schools or affiliated organizations.
  - Hybrid: Most health care services provided by a combination of non-university state employees, contracted employees, and/or state university employees.

  Departments reporting any delivery system but direct-provision were further asked whether their contractual payment model was:

  - Cost-plus: Contractors bill the department for the cost of providing medical services plus a management fee.
  - Capitated (worded as "comprehensive" in the survey): Contractors receive a set per-inmate or annual payment.
  - Other.
- **Staffing** in fiscal 2015 or the most recent year possible. Respondents were asked to provide the number of health professional full-time equivalents (FTEs)—in total and by position category—providing health care to individuals in prison, broken out, as applicable, between state employees (further broken out between the department of corrections, state university, and other state agencies) and contract employees.

  Health professionals included physicians (general practitioners, specialists, etc., except psychiatrists); psychiatrists; dentists; physician assistants and nurse practitioners; other clinical mental health professionals (psychologists, mental health counselors, clinical social workers, psychiatric technicians, etc.); pharmacists; nurses (licensed practical nurses, registered nurses, etc.); other clinically trained staff (occupational therapists, physical therapists, recreational therapists, radiology technicians, lab technicians, etc.); paraprofessionals (nurse technicians, certified nursing assistants, medical assistants, orderlies, aides, dental assistants, pharmacy technicians, etc.); and health care administrative staff.

Respondents were asked to report only filled FTEs—on-site and via telehealth—based both in correctional facilities and administrative offices, even if additional FTEs were budgeted but unfilled. Inmates performing medical work assignments were excluded.

Respondents were also asked to report the number of vacant FTEs by position, as well as describe the typical duration of vacancies, how vacancy durations vary by position, and challenges the department faces in filling staff positions.

- **Cost-containment strategies,** including whether the department uses the state Medicaid program's negotiated provider rates for off-site hospitalizations.

Survey II: Prevalence tracking, quality monitoring, care continuity

The second survey, addressed to senior health care staff of state departments of corrections, queried departments as of fiscal 2016 on their:

- **Disease and condition prevalence tracking.** This included anxiety disorders, asthma, cancers, cardiovascular diseases and stroke, chronic obstructive pulmonary disease, cognitive impairment, dementia, developmental disabilities, diabetes, hepatitis C (chronic), HIV/AIDS, hypertension, mood disorders, substance use disorder, and tuberculosis (active).
- **Health care quality monitoring.** Respondents were asked whether their state had established a prison health care quality monitoring system, defined as a uniform, standardized, and ongoing set of policies, metrics, benchmarks, and data sources used and monitored by state officials—whether health care services are delivered directly by the state or by contracted vendors.

  For the purposes of this study, a quality monitoring system refers only to one used by the state and does not include quality controls contracted vendors use internally. States in which contracted vendors deliver some or all health care services may use their quality monitoring system to oversee the performance of vendors. A state may elect to incorporate measures monitored internally by contracted vendors into its own system. A state may also rely on contracted vendors to submit data pertaining to quality measures to populate its own system.

  To meet the study's definition of a quality monitoring system, state efforts had to meet four criteria:

  - *Grounded in data.* The system uses a set of measures to assess the quality of care delivered in correctional facilities.
  - *Established and overseen by state agencies.* The system is overseen by one or more state agencies. It is distinct from systems overseen by contracted vendors, though it may interact with them by incorporating measures monitored internally by vendors and/or collect data on particular measures from vendors to populate its own system. States may use their system to oversee the performance of vendors.
  - *Applied broadly and consistently.* The system is applied to more than half of state prison facilities and more than half of the measures used across facilities are identical.
  - *Ongoing.* Quality is monitored on a regular schedule—not in a point-in-time snapshot fashion.

  States that reported having an established system were further asked about its basis, overseeing agency, scope across facilities, objectives, uses, facilitators and barriers to establishment, data sharing, and breadth of focus across key domains: access to care and utilization; screening and prevention services; infectious diseases; chronic diseases; behavioral health conditions; and geriatric conditions or services.

States that reported not having an established system were invited to describe their related efforts and were asked about potential barriers, uses for quality data, and future plans.

Finally, all respondents were asked about the presence of a formal death review process and a standard definition of medical preventability. And all respondents were asked, as applicable, whether required quality metrics are included in a majority of their department's requests for proposal and/or contractual agreements with private vendors, and whether associated financial incentives or penalties are used.

- **Continuous quality improvement (CQI) programing.** CQI was defined as a structured process designed to continuously improve health care services by identifying problems, implementing and monitoring corrective actions, and assessing their effectiveness.
- **Care continuity services.** For the purposes of this study, care continuity services were defined as programs, policies, or procedures that are intended to facilitate medical and behavioral health services for people transitioning from correctional to community settings. Care continuity services can also be applied when individuals enter prison, are transferred among prisons, or are transferred between prison and an off-site health care provider, but this study focused on those pertaining to discharge.

  Respondents were queried about:

  - The scope across facilities of care continuity services;
  - Practices to suspend or terminate pre-existing Medicaid enrollment during incarceration and assist potentially eligible individuals with new Medicaid applications as part of re-entry planning;
  - Patient health records sharing;
  - Variation in services by conditions;
  - Collaboration with community supervision personnel (e.g., probation officer, parole officer);
  - Facilitating access to medication-assisted treatment for opioid use disorder at re-entry;
  - Bridge medication and prescriptions;
  - Referrals to providers and scheduled appointments;
  - Pre-release provider consultation; and
  - Self-management of health and overdose prevention trainings.

Assuring data quality

Two rigorous phases of quality assurance were conducted to strengthen the integrity of the data and improve and deepen Pew's understanding of states' operations. During the first phase, researchers systematically inspected every returned survey to identify incomplete responses, inconsistencies, and apparent data entry errors. Additionally, spending and demographic data were compared to applicable responses to a previous Pew/Vera survey in order to reconcile material discrepancies. Following this inspection, respondents were contacted and given the opportunity to complete or correct their submissions.

During the second phase, researchers critically reviewed the cleaned data set to identify remaining inconsistencies within and across states, unclear responses, unexplained anomalies, and potentially promising practices. Following this review, interviews were conducted to ensure that states' responses accurately reflect their operations and to gather additional insights into how state prison health care is managed.

Respondents were provided with an opportunity to verify all data changes.

Analytical notes

State fiscal years. Each state was asked to report data for Survey I for their own fiscal year. For example, for every state, fiscal 2010 in the survey was the fiscal year that ended in 2010. State fiscal years end June 30 in all but four states: New York (March 31), Texas (Aug. 31), and Alabama and Michigan (Sept. 30).

Per-inmate spending calculations and comparisons. Per-inmate health care spending was calculated as corrections department health care expenditures divided by the total average daily population under the jurisdiction of the corrections department, including individuals under state jurisdiction held in the custody of private prisons and local jails.

Owing to the limitations of state data submissions, there were several where per-inmate spending excluded certain individuals within the jurisdiction of the corrections department and one (Maryland) that included individuals outside of the jurisdiction of the corrections department:

- There were nine states (Colorado, Florida, Hawaii, Idaho, Louisiana, New Mexico, Ohio, Oklahoma, and Virginia) that reported individuals under the jurisdiction of the state corrections department and held in the custody of private prisons, but did not report health care spending for these individuals. In these states, the average daily population in the custody of private prisons was removed from the per-inmate spending calculation.
- Arizona reported individuals under the jurisdiction of the state corrections department housed out of state in temporary beds for fiscal 2010 and 2011, but did not report health care spending for those individuals. These individuals were removed from the per-inmate spending calculation.
- Mississippi reported individuals under the jurisdiction of the state corrections department and held in the custody of private prisons, but did not report health care spending for those individuals for fiscal 2010, 2011, and 2012. The average daily population in the custody of private prisons was removed from per-inmate spending calculations for fiscal 2010 through 2012, but included in calculations for fiscal 2013 through fiscal 2015.
- There were 15 states (Arizona, Florida, Illinois, Kansas, Maryland, Minnesota, Mississippi, Missouri, Oklahoma, Oregon, South Dakota, Tennessee, Virginia, West Virginia, and Wisconsin) that reported individuals under the jurisdiction of the state corrections department and held in the custody of local jails, but did not report health care spending for these individuals. In these states, the average daily population in the custody of local jails was removed from the per-inmate spending calculation.
- Maryland's reported corrections department spending included spending for individuals detained by the federal government and individuals detained by the City of Baltimore that were held in state-run facilities.

There were four states (Colorado, Maryland, Massachusetts, and Montana) that reported the state corrections department was responsible for only some portion of health care provided to individuals held in local jails (Colorado and Maryland), private prisons (Montana), or other states' facilities and federal facilities (Massachusetts). Therefore, per-inmate spending in these states does not necessarily reflect all health care provided to individuals within the jurisdiction of the state corrections department.

(See Appendix B: State data notes.)

Spending trend inflation adjustments. To analyze changes in state prison health care spending over time, data for fiscal 2010 to 2014 were converted to 2015 dollars using the Implicit Price Deflator for Gross Domestic Product included in the Bureau of Economic Analysis' National Income and Product Accounts.

Staffing level calculations and comparisons. Staffing figures include health professionals employed directly by the state and those secured through contracting.

States differed slightly in how they reported staffing data:

- This analysis compares the number of health professional FTEs per 1,000 inmates under the **custody** of the corrections department to spending per inmate under the **jurisdiction** of the corrections department. In most states, the vast majority of inmates under their jurisdiction are also under their custody. In states that make greater use of local jails or private prisons, where inmates are not under the custody of the state, it is possible that per-inmate health care figures would differ if calculated based solely on spending in state-run facilities for inmates under state custody.
- Most states reported either a one-day snapshot or average daily FTE totals, with a small minority basing some or all of their staffing figures on the number budgeted for in contracts.
- Most states provided data for fiscal 2015, but 13 provided them for fiscal 2016.

Six states (Florida, Iowa, Rhode Island, Utah, Virginia, and Wisconsin) were excluded from the staffing-level analysis because they submitted staffing data that were incomplete or not comparable. An additional six states (Alabama, Arkansas, Louisiana, Nebraska, South Dakota, and West Virginia) were removed from the compositional analysis because they provided incomplete or no data by staff position.

(See Appendix B: State data notes.)

Demographic calculations and comparisons.

Age distributions

Age distribution data reflect proportions of the average daily population under the jurisdiction of the state corrections department, including individuals held in private prisons or local jails.

Five states (Alabama, Iowa, Michigan, South Dakota, and Tennessee) were excluded from Pew's trend analysis because they either did not track inmates by the age brackets surveyed or did not report data to Pew and Vera for fiscal 2010 and 2015. Fiscal 2010 data for Kansas were reported for a prior survey by Pew and Vera. New Hampshire provided no data at all. (See Appendix B: State data notes.)

To analyze national, long-term changes in the age of *state and federal* inmates, Pew collected data from the Bureau of Justice Statistics (BJS). BJS estimates the age distribution of prisoners using data from the Federal Justice Statistics Program and statistics that states voluntarily submit to the National Corrections Reporting Program. State participation in this program has varied, which may have caused year-to-year fluctuations in the bureau's national estimates, but this does not affect long-term trend comparisons. From 2009-10, the number of states submitting data increased substantially, which might have contributed to the year-over-year increase in the national estimate between those years. This does not affect state-specific demographic data Pew and Vera collected from states.

Sex distribution

To analyze the percentage of state prison populations that are female, Pew collected data from BJS. Percentages represent those under jurisdiction of state correctional authorities on Dec. 31, 2015. BJS imputed percentages for Nevada and Oregon, which did not submit 2015 data. Percentages for Alaska, Connecticut, Delaware, Hawaii, Rhode Island, and Vermont reflect jail and prison populations, as prisons and jails form one integrated system.

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. Researchers did independently confirm responses that prison health care quality monitoring systems were required by state legislation, executive order, or regulation, and that monitoring results were made publicly available.

Appendix B: State data notes

Alabama

Staffing

- Alabama reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.
- Alabama was removed from the compositional analysis of staffing data because the state did not report the number of health professional full-time equivalents by medical profession.

Age distribution

- Alabama was not included in the age distribution analysis. The state does not track inmates by the age brackets surveyed.

Alaska

Custody arrangements

- Alaska is one of six states where the state manages both prisons and jails under a unified corrections system. The other states are Connecticut, Delaware, Hawaii, Rhode Island, and Vermont.
- In addition to Alaska's state-run corrections system, there are also 15 community jails throughout the state that are operated by local departments of public safety, borough governments, and city police departments.

Disaggregated spending

- Alaska's disaggregation of spending did not sum to the state's reported total health care expenditures.

Staffing

- Alaska reported staffing data for fiscal year 2016. Amounts were reported as an average daily number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Alaska's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, it did report that plans were underway to establish a system and launch it by July 2017.

Care continuity services

- The amount of bridge medication provided varies from seven days to 30 depending on the amount remaining on an inmate's prescription.

Arizona

Per-inmate health care spending

- Arizona's per-inmate health care spending does not include those individuals in the jurisdiction of the state corrections department who are held in short-term contracted facilities outside of Arizona. There were 4,045 such individuals in fiscal 2010 and 463 in fiscal 2011, accounting for 10.0 percent and 1.2 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Arizona reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Arizona's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Care continuity services

- Medicaid enrollment is suspended for individuals entering the prison system with a year or less remaining on their sentence. For all others, enrollment is terminated.

Arkansas

Staffing

- Arkansas reported staffing data for fiscal year 2015. Amounts were based on staffing requirements from the contract with the state's private vendor.
- Arkansas was removed from the compositional analysis of staffing data because the state did not report the number of health professional full-time equivalents (FTEs) by medical profession.

Quality monitoring

- The system does not include measures for screening and prevention services in the areas asked about in the survey (vaccinations, routine physical examinations, and cancer screening), but does include measures pertaining to the frequency of chronic care clinics (i.e., dedicated times for monitoring and managing patients with particular conditions).

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- The respondent reported that the Department of Corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.
- The amount of bridge medication provided to inmates varies. All inmates on medication are to be provided with a minimum supply of seven days of medication, and those with chronic conditions or mental health needs are to receive a 30-day supply.

California

Survey respondents

- Survey I was filled out by California's Legislative Analyst's Office with assistance from the California Department of Corrections and Rehabilitation (CDCR). Survey II was filled out by CDCR.

Staffing

- California reported staffing data for fiscal year 2015.

Agency responsibility for state Medicaid, off-site care costs

- California's corrections department pays for the inpatient hospitalizations of all prisoners. The corrections department submits claims to the state Medicaid agency for federal reimbursement of eligible costs.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.
- The respondent noted that the time release planning begins varies. No further detail was provided.
- The respondent did not know the prevalence of coordination between prison facilities and community supervision personnel.
- The respondent reported limited information on the supply of bridge medication provided to departing inmates. The respondent did not know the duration typically provided to inmates with HIV/AIDS and did not answer questions regarding the duration of bridge medications for other conditions.

Colorado

Per-inmate health care spending

- Colorado's per-inmate health care spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. There were 3,914 such individuals in fiscal 2015, accounting for 19.1 percent of the average daily population in the jurisdiction of the corrections department.
- Colorado's per-inmate health care spending only includes extraordinary medical expenditures for those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There were 139 such individuals in fiscal 2015, accounting for less than 1 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Colorado reported staffing data for fiscal year 2016. Amounts were reported as an average daily number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Colorado's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- In the area of screening and prevention, Colorado's quality monitoring system includes tuberculosis testing in addition to vaccinations.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.

Connecticut

Custody arrangements

- Connecticut is one of six states where the state manages both prisons and jails under a unified corrections system. The other states are Alaska, Delaware, Hawaii, Rhode Island, and Vermont.

Staffing

- Connecticut reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Connecticut's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Care continuity services

- Community providers receive partial health records at release.
- Re-entry planning typically starts one year before release for those with a serious mental illness. For all others, it begins 31-60 days before release.

Delaware

Total health care spending

- About $4.3 million, or 7.5 percent, of Delaware's reported total health care spending is paid through the state's substance abuse budget, not the corrections department.

Custody arrangements

- Delaware is one of six states where the state manages both prisons and jails under a unified corrections system. The other states are Alaska, Connecticut, Hawaii, Rhode Island, and Vermont.

Staffing

- Delaware reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Delaware's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- The respondent did not know the prevalence of coordination between prison facilities and community supervision personnel.

Florida

Per-inmate health care spending

- Florida's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. There were 10,163 such individuals in fiscal 2015, accounting for 10.1 percent of the average daily population in the jurisdiction of the corrections department.
- Florida's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There were no such individuals in fiscal 2015, but 67 in fiscal 2010 and fiscal 2011, accounting for less than 1 percent of the average daily population in the jurisdiction of the corrections department.

Disaggregated spending

- Florida's disaggregation of spending summed to about 1 percent of the state's reported total health care expenditures. The state was removed from all analysis of disaggregated spending.

Staffing

- Florida did not report the number of contracted health professional full-time equivalents. Because the majority of the state's health care services are provided by contractors, the state was removed from all staffing analyses.

Prevalence tracking

- Though the respondent reported that the prevalence of only one of the conditions surveyed (cardiovascular diseases and stroke) is tracked, the state's chronic illness clinics (immunity, cardiac, gastrointestinal, respiratory, endocrine, tuberculosis, neurology, oncology, and miscellaneous) allow for prevalence tracking of broader sets of conditions. For example, patients with HIV/AIDS would be enrolled in the immunity clinic and those with hepatitis C would be enrolled in the gastrointestinal clinic.

Care continuity services

- The respondent did not reply to several questions regarding Medicaid enrollment, including the percentage of facilities providing Medicaid enrollment application assistance, whether inmates typically leave prison with a Medicaid card, and whether Medicaid managed care plans are required to provide care continuity programs/services to inmates transitioning from prison to the community.
- In general, inmates do not continue working with providers who are dually based in the prison and the community after release. Inmates with HIV may do so, however. Through Ryan White funds, these inmates are seen by county health departments and may continue to see these providers after release.
- The respondent did not reply to the survey question regarding whether inmates and/or their community providers receive a copy of health records after release.
- The respondent noted that the timing varies by condition as to when care continuity planning begins. In some cases, it begins up to six months before release.

Georgia

Disaggregated spending

- Georgia's disaggregation of spending did not sum to the state's reported total health care expenditures.

Staffing

- Georgia reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the corrections department does not track this information.
- The supply of bridge medication provided varies by condition and how quickly individuals can be seen by a community provider. The respondent did not answer questions about the duration of bridge medication provided to those with anxiety, mood, or personality disorders.

Hawaii

Per-inmate health care spending

- Hawaii's per-inmate health care spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. There were 1,341 such individuals in fiscal 2015, accounting for 23.7 percent of the average daily population in the jurisdiction of the corrections department.

Custody arrangements

- Hawaii is one of six states where the state manages both prisons and jails under a unified corrections system. The other states are Alaska, Connecticut, Delaware, Rhode Island, and Vermont.

Staffing

- Hawaii reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Hawaii's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, it did report that plans were underway to establish a system and launch it by July 2017.

Care continuity services

- The corrections department reportedly refers individuals to a methadone treatment provider only if they were prescribed methadone during their incarceration in order to continue treatment begun in the community.
- In addition to providing care continuity services for those with mood and psychotic disorders, the state provides services to anyone hospitalized at the time of release.
- The state provides bridge medication only for mood and psychotic disorders.

Idaho

Per-inmate health care spending

- Idaho's per-inmate health care spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in private prisons. There were 653 such individuals in fiscal 2015, accounting for 8 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Idaho reported staffing data for fiscal year 2016. Amounts for the corrections department were reported as a one-day snapshot of the number of health professional full-time equivalents. Amounts for contracted staff were reported as the total number of contracted employees.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the corrections department does not track this information.
- The respondent noted that the timing of the beginning of care continuity planning varies by condition.

Illinois

Per-inmate health care spending

- Illinois' per-inmate spending does not include health care provided to individuals in the jurisdiction of the state corrections department who are held in local jails. There were 229 such individuals in fiscal 2015, accounting for less than 1 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Illinois reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Illinois' Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the corrections department does not track this information.
- The respondent reported that most inmates receive a two-week supply of bridge medication and then a prescription for an additional two weeks. Those with HIV are given a full 30-day supply at release.

Indiana

Agency responsibility for state Medicaid, off-site care costs

- Indiana's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Staffing

- Indiana reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.

Age distribution

- Indiana's age data were reported based on a one-day snapshot at the end of the state fiscal year, not as an average daily population.

Iowa

Total health care spending

- The University of Iowa Hospitals and Clinics covers all inpatient and outpatient services delivered to prisoners at the university. The costs of these services are not included in either the state's total health care expenditures or per-inmate health care expenditures.

Staffing

- Iowa did not provide the number of health profession full-time equivalents for the University of Iowa Hospitals and Clinics. Because the university provides a number of health care services, the state was removed from all staffing analyses.

Agency responsibility for state Medicaid, off-site care costs

- See note about University of Iowa Hospitals and Clinics above.

Age distribution

- Iowa was not included in the age distribution analysis. The state does not track inmates by the age brackets surveyed.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, the respondent did report that plans were underway to establish a system. The launch date of this system was undefined.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- The respondent did not know the prevalence of coordination between prison facilities and community supervision personnel.

Kansas

Per-inmate health care spending

- Kansas' per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who were held in local jails. There were 58 such individuals in fiscal 2015, accounting for less than 1 percent of the average daily population in the jurisdiction of the corrections department.

Delivery system organizational structure

- Kansas reported that its delivery system is best described as a hybrid model. Given responses elsewhere in the survey, which suggest that the bulk of health care services is provided by a single contractor, Corizon, researchers changed Kansas' response to "contracted model."

Disaggregated spending

- Kansas' disaggregation of spending did not sum to the state's reported total health care expenditures.

Staffing

- Kansas reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.
- Kansas' numbers reflect health profession full-time equivalents for both adult and juvenile correctional facilities.

Age distribution

- Kansas' proportion of inmates over the age of 55 under the jurisdiction of the corrections department for fiscal 2010 was taken from Kansas' response to a previous Pew/Vera survey administered in 2013.

Kentucky

Staffing

- Kentucky reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.

Louisiana

Total health care spending

- Prior to fiscal 2014, off-site medical costs were included in Louisiana State University's budget. After fiscal 2014, these costs were included in the corrections department's budget, resulting in a $20 million, or 44 percent, increase in health care spending from fiscal 2013 to fiscal 2014. This change contributes to increases in both total health care spending and per-inmate health care spending from fiscal 2010 to fiscal 2015.

Per-inmate health care spending

- Louisiana's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. There were 2,877 such individuals in fiscal 2015, accounting for 7.7 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Louisiana reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents (FTEs).
- Louisiana was removed from the compositional analysis of staffing data because the state did not report the number of contracted health professional FTEs by medical profession.

Agency responsibility for state Medicaid, off-site care costs

- Louisiana's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- Louisiana did not report whether its quality monitoring system incorporates formal, standardized assessments of inmates' satisfaction with their health care experience (e.g., patient satisfaction surveys).

Care continuity services

- In addition to those with the conditions surveyed, the respondent reported that those with "a significant disability," such as "hearing or visual impairment," are targeted for care continuity services.

Maine

Staffing

- Maine reported staffing data for fiscal year 2015. Amounts for contracted staff were reported as the total number of contracted employees.

Agency responsibility for state Medicaid, off-site care costs

- Maine's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Maryland

Per-inmate health care spending

- Maryland's per-inmate spending includes health care provided to approximately 500 individuals detained by the federal government and held in state-run facilities, along with 2,500 individuals detained by the city of Baltimore and held in state-run facilities. Health care for these individuals is covered under the state's medical contract.
- Maryland's per-inmate spending does not include spending for individuals under the jurisdiction of the state corrections department who are held in the custody of local jails. There were 178 such individuals in fiscal 2015, accounting for less than 1 percent of the average daily population in the jurisdiction of the corrections department. Local jails are responsible for covering the costs of medical care for these individuals up to $25,000 for a single incident. The state is financially responsible for single-incident costs that exceed $25,000.
- The state reported that individuals in the jurisdiction of the state corrections department who are held in private prisons are returned to Maryland facilities for all medical care. Health care costs for these individuals are included in Maryland's per-inmate health care spending.

Disaggregated spending

- Maryland disaggregation of spending did not sum to the state's reported total health care expenditures.

Staffing

- Maryland reported staffing data for fiscal year 2016.

Care continuity services

- Though neither the inmate nor the community provider receives a copy of health records at release, information on an inmate's medication and chronic care needs are entered into the state's health information exchange.

Massachusetts

Per-inmate health care spending

- Massachusetts' per-inmate spending includes nonroutine health care (e.g., surgery, lab testing, medical devices) for 70 to 90 individuals in the jurisdiction of the state corrections department who are held in the custody of other states' facilities and/or federal facilities. Routine health care spending for these individuals is not included.

- Massachusetts' per-inmate spending includes nonroutine health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. Routine health care spending is not included. There were 310 such individuals in fiscal 2015, accounting for 2.8 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Massachusetts reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Quality monitoring

- Massachusetts did not report whether its quality monitoring system incorporates formal, standardized assessments of inmates' satisfaction with their health care experience (e.g., patient satisfaction surveys).

Care continuity services

- The respondent reported that the corrections department is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.
- The respondent did not know the prevalence of coordination between prison facilities and community supervision personnel.
- Bridge medication supplies are determined by health care personnel on a case-by-case basis.

Michigan

Age distribution

- Michigan did not report age distribution data for fiscal 2014 and fiscal 2015.

Staffing

- Michigan reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Michigan's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Care continuity services

- Though care continuity services are offered to inmates with only certain conditions, the respondent did not indicate which conditions those were.

Minnesota

Per-inmate health care spending

- Minnesota's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There were no such individuals in fiscal 2014 or fiscal 2015, but 40 in fiscal 2013, accounting for less than 1 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Minnesota reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Minnesota's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.

Mississippi

Per-inmate health care spending

- Mississippi did not report health care spending for those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons for fiscal 2010, 2011, and 2012. The state did report spending for these individuals for fiscal 2013, 2014, and 2015. These individuals are not included in per-inmate spending calculations for fiscal 2010 through 2012, but included for calculations for fiscal 2013 through fiscal 2015. From fiscal 2010 to fiscal 2015, the corrections department, on average, held 22 percent of the population under its jurisdiction in private prisons.

Staffing

- Mississippi reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Mississippi's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Missouri

Per-inmate health care spending

- Missouri's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There were 365 such individuals in fiscal 2015, accounting for 1.1 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Missouri reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.
- The respondent did not answer questions regarding access to buprenorphine, methadone, or naloxone after release.

Montana

Per-inmate health care spending

- Montana's per-inmate spending includes off-site, but not on-site, health care provided to those individuals in the jurisdiction of the state corrections department who are held at the privately operated Crossroads Correctional Center in Shelby, Montana. The facility holds about 540 inmates.

Staffing

- Montana reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.
- Montana did not report the number of contracted health professional full-time equivalents. Because the majority of the state's health care services are provided by corrections department staff, the state was included in all staffing analyses.

Agency responsibility for state Medicaid, off-site care costs

- Montana's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Age distribution

- Montana reported only the proportion of inmates under the jurisdiction of the state corrections department who were 55 and older. The state did not report data for other age brackets.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, it did report that plans were underway to establish and launch a system by July 2017.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.

Nebraska

Staffing

- Nebraska reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.
- Nebraska was removed from the compositional analysis of staffing data because the state did not report the number of health professional full-time equivalents by medical profession.

Quality monitoring

- Nebraska did not report whether its quality monitoring system incorporates formal, standardized assessments of inmates' satisfaction with their health care experience (e.g., patient satisfaction surveys).

Care continuity services

- The respondent did not indicate whether Medicaid managed care plans are required to provide care continuity programs/services to inmates transitioning from prison to the community.
- The respondent did not indicate whether a majority of prison facilities generally make use of presumptive eligibility when inmates apply for Medicaid.
- The respondent did not indicate whether individuals or their community providers receive a copy of health records at release.

Nevada

Staffing

- Nevada reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Nevada's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. Prior to fiscal 2014, the corrections department covered the remaining state share of costs after federal reimbursement. These costs have been paid by the state Medicaid agency since fiscal 2014.

Age distribution

- Nevada did not report age distribution data for fiscal 2011 and fiscal 2012.

New Hampshire

Data were not submitted by New Hampshire.

New Jersey

Per-inmate health care spending

- New Jersey's per-inmate health care spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in county jails.

Staffing

- New Jersey reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- New Jersey's corrections department pays for the inpatient hospitalizations of all prisoners. The corrections department submits claims to the state Medicaid agency for federal reimbursement of eligible costs.

Care continuity services

- The respondent reported only the duration of bridge medication provided to inmates with HIV/AIDS. Information on the duration of bridge medication provided to those with other conditions or health needs was not reported.

New Mexico

Per-inmate health care spending

- New Mexico's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. There were 3,509 such individuals in fiscal 2015, accounting for 50.2 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- New Mexico reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- New Mexico's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Care continuity services

- The respondent did not know the prevalence of coordination between prison facilities and community supervision personnel.

New York

Staffing

- New York reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.
- New York's disaggregated staffing data do not include psychiatrists from the state Office of Mental Health (OMH) that provide care to individuals under the jurisdiction of the state corrections department. The state did not report a count for these employees.
- New York's reported data for dentist FTEs include dental hygienists and assistants, and its reported data for pharmacists include pharmacy aides.

Agency responsibility for state Medicaid, off-site care costs

- New York's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Care continuity services

- While a 30-day supply of bridge medication is provided for most prescription medications, a 14-day supply is provided for any controlled substance.

North Carolina

Disaggregated spending

- North Carolina's disaggregation of spending did not sum to the state's reported total health care expenditures.

Staffing

- North Carolina reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, the state did report that plans were underway to establish and launch a system by January 2017.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.

North Dakota

Total health care spending

- North Dakota did not report total health care spending for fiscal 2010 and fiscal 2011. Per-inmate spending cannot be calculated for these years.

Staffing

- North Dakota reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- North Dakota's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, the state did report that plans were underway to establish a system. The launch date of this system was undefined.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.

Ohio

Per-inmate health care spending

- Ohio's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. There were 4,435 such individuals in fiscal 2015, accounting for 8.8 percent of the average daily population held in the jurisdiction of the corrections department.

Staffing

- Ohio reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional FTEs.
- Ohio did not report the number of contracted health professional full-time equivalents. Because the majority of the state's health care services are provided by corrections department staff, the state was included in all staffing analyses.

Agency responsibility for state Medicaid, off-site care costs

- Ohio's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Care continuity services

- A 14-day supply of bridge medication and a 90-day prescription is provided for most prescription medications. For HIV and mental health medications, a 30-day supply is provided along with the 90-day prescription.

Oklahoma

Per-inmate health care spending

- Oklahoma's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. Health care expenditures for these individuals were not reported for fiscal 2010 through fiscal 2013. There were 5,814 such individuals in fiscal 2015, accounting for 21.4 percent of the average daily population in the jurisdiction of the corrections department.
- Oklahoma's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There were 1,946 such individuals in fiscal 2015, accounting for 7.1 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Oklahoma reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.
- Oklahoma's ratio of health professional FTEs for every 1,000 inmates does not include University of Oklahoma employees who provide telemedicine services.

Agency responsibility for state Medicaid, off-site care costs

- Oklahoma's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Oregon

Per-inmate health care spending

- Oregon's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There was one such individual in fiscal 2015.

Staffing

- Oregon reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Oregon's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, the state did report that plans were underway to establish a system. The launch date of this system was undefined.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.
- The respondent did not know the prevalence of coordination between prison facilities and community supervision personnel.
- In addition to expanded care continuity services being offered to those with HIV/AIDS, active tuberculosis, psychotic disorders, end-stage renal disease, dementias or neurodegenerative diseases, cancers, those needing palliative care or hospice, or those in danger of suicide and self-harm, such services are offered to those with "severe medical condition[s]" and those requiring nursing home placements.

Pennsylvania

Staffing

- Pennsylvania reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Pennsylvania's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Care continuity services

- A 30-day bridge supply is provided for most medications, and a 60-day supply of psychiatric medications is provided.

Rhode Island

Custody arrangements

- Rhode Island is one of six states where the state manages both prisons and jails under a unified corrections system. The other states are Alaska, Connecticut, Delaware, Hawaii, and Vermont.

Staffing

- Rhode Island did not report the number of university or contracted health professional full-time equivalents. Because many of the state's health care services are provided by university and contracted staff, the state was removed from all staffing analyses.

Agency responsibility for state Medicaid, off-site care costs

- Rhode Island's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, the state did report that plans were underway to establish a system. The launch date of this system was undefined.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.
- A minimum seven-day supply of bridge medication is provided, with up to a 20-day supply provided on a case-by-case basis.

South Carolina

Staffing

- South Carolina reported staffing data for fiscal year 2015.

Agency responsibility for state Medicaid, off-site care costs

- South Carolina's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- The state's continuous quality improvement policy was in development at the time of survey deployment.
- Although the respondent reported monitoring only behavioral health at the time of the survey, additional measures in other areas were reportedly in development.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.

South Dakota

Per-inmate health care spending

- South Dakota's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There were 49 such individuals in fiscal 2015, accounting for 1.3 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- South Dakota reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.
- South Dakota was removed from the compositional analysis of staffing data because the state did not report the number of health professional FTEs from the Department of Social Services by medical profession.

Age distribution

- South Dakota did not report age distribution data for fiscal 2010, 2011, and 2012.

Tennessee

Per-inmate health care spending

- Tennessee's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. There were 9,285 such individuals in fiscal 2015, accounting for 31.3 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Tennessee reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Age distribution

- Tennessee did not report age distribution data for fiscal 2010, 2011, 2012, and 2013.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- Bridge medication supplies of either 14-30 days or more than 30 days are provided, depending on an individual's condition(s). Tennessee indicated that neither supply duration is more prevalent than the other.

Texas

Disaggregated spending

- Texas disaggregation of spending did not match the state's reported total health care expenditures.

Staffing

- Texas reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Care continuity services

- When asked when Medicaid enrollment was generally completed, the respondent reported that the department of corrections does not track this information.
- Care continuity planning begins once the inmate's release date is known or parole vote is received.
- The supply of bridge medication provided varies by condition. Controlled substances are not provided. The respondent did not know the duration of medication typically provided for chronic hepatitis C.

Utah

Staffing

- Utah did not report the number of health professional full-time equivalents (FTEs) from the University of Utah. The state was removed from all staffing analyses.

Agency responsibility for state Medicaid, off-site care costs

- Utah's Medicaid agency covers inpatient hospitalization costs for eligible prisoners. The corrections department pays for the remaining state share of costs after federal reimbursement.

Quality monitoring

- In the area of screening and prevention, Utah's quality monitoring system includes chronic care visits in addition to vaccinations, routine physical examinations, and cancer screening.

Care continuity services

- Release planning begins one to 20 days before release for Medicaid applications, and over 90 days from release date for those with chronic noncommunicable and infectious diseases.
- A 30-day bridge supply of psychiatric medication, and a 14-day supply of medication for chronic medical conditions, is provided.

Vermont

Custody arrangements

- Vermont is one of six states where the state manages both prisons and jails under a unified corrections system. The other states are Alaska, Connecticut, Delaware, Hawaii, and Rhode Island.

Staffing

- Vermont reported staffing data for fiscal year 2015. Amounts were reported as a one-day snapshot of the number of health professional full-time equivalents.

Agency responsibility for state Medicaid, off-site care costs

- Vermont's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Virginia

Population

- Virginia reported population numbers as a one-day snapshot on June 30 of each year, not as an average daily population.

Delivery system organizational structure

- The Virginia corrections department contracts with private vendors to provide and manage health care at certain facilities, while retaining responsibility for care and management at other facilities.

Per-inmate health care expenditures

- Virginia's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of private prisons. There were 1,551 such individuals in fiscal 2015, accounting for 4 percent of the average daily population in the jurisdiction of the corrections department.
- Virginia's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. Local jails are responsible for all medical expenses for these individuals. There were 8,362 such individuals in fiscal 2015, accounting for 21.6 percent of the average daily population in the jurisdiction of the corrections department.

Staffing

- Virginia did not report the number of contracted health professional full-time equivalents. Because many of the state's health care services are provided by contractors, the state was removed from all staffing analyses.

Quality monitoring

- Though the state reported not having a quality monitoring system at the time of the survey, it did report that plans were underway to establish and launch a system by July 2018.

Care continuity services

- In addition to the care continuity services in the survey, Virginia provides case management for HIV-positive offenders.

Washington

Staffing

- Washington reported staffing data for fiscal year 2016. Amounts were reported as a one-day snapshot. Corrections department amounts were equal to the number of funded, not filled, health professional full-time equivalents.
- Washington reported about 80 percent of contracted health professional FTEs. Because most health care services are provided by corrections department staff, the state was included in all staffing analyses.

Agency responsibility for state Medicaid, off-site care costs

- Washington's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Quality monitoring

- The respondent noted that Washington's system monitors behavioral health conditions, but not those included in the survey.

West Virginia

Per-inmate health care expenditures

- West Virginia's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in the custody of local jails. Local jails are responsible for all medical expenses for these individuals. There were 1,024 such individuals in fiscal 2015, accounting for 14.8 percent of the average daily population in the jurisdiction of the corrections department.

Disaggregated spending

- West Virginia's disaggregation of spending did not sum to the state's reported total health care expenditures.

Staffing

- West Virginia reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.
- West Virginia was removed from the compositional analysis of staffing data because the state did not report complete data for the number of health professional FTEs by medical profession.

Agency responsibility for state Medicaid, off-site care costs

- West Virginia's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Care continuity services

- The respondent reported that the department of corrections is not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community.
- The respondent did not know whether facilities have care continuity programs/services.

Wisconsin

Per-inmate health care expenditures

- Wisconsin's per-inmate spending does not include health care provided to those individuals in the jurisdiction of the state corrections department who are held in local jails. Local jails are responsible for all medical expenses for these individuals. There were 30 such individuals in fiscal 2015, accounting for less than 1 percent of the average daily population in the jurisdiction of the corrections department.
- Wisconsin's per-inmate health care spending does not include the cost for a small number of mental health professionals who provide care to individuals under the jurisdiction of the corrections department. These positions are included in staffing totals.

Staffing

- Wisconsin reported the total number of open positions, not just filled positions, for the Department of Health Services. Given the role that this department plays in providing health care for individuals under the jurisdiction of the state corrections department, the state has been removed from all staffing analyses.

Agency responsibility for state Medicaid, off-site care costs

- Wisconsin's Medicaid agency covers inpatient hospitalization costs for eligible prisoners, including any remaining state share of costs after federal reimbursement.

Prevalence tracking

- Rather than the prevalence of specific conditions, the prevalence of condition groupings by severity of mental illness is tracked.

Quality monitoring

- Wisconsin did not report which chronic conditions, if any, are monitored by its quality monitoring system.

Care continuity services

- The respondent did not indicate whether Medicaid managed care plans are required to provide care continuity programs/services to inmates transitioning from prison to the community.
- Although medical records are not provided to individuals or their community providers at re-entry, individuals do receive a discharge summary.

- The respondent did not indicate whether coordination occurs between prison facilities and community supervision personnel.
- In addition to targeting those with HIV/AIDS, chronic hepatitis C, mood disorders, personality disorders, and psychotic disorders, the department also targets care continuity services for those with "complex medical needs."

Wyoming

Staffing

- Wyoming reported staffing data for fiscal year 2015. Amounts were reported as an average daily number of health professional full-time equivalents.

Age distribution

- Wyoming reported only the proportion of inmates under the jurisdiction of the state corrections department who were 55 and older. The state did not report data for other age brackets.

Appendix C: 50-state data

Table C.1

Total Corrections Department Health Care Spending, Adjusted for Inflation

FY 2010-15

State	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
49-state total	**-**	**-**	**$7,959,437,365**	**$7,642,992,922**	**$7,828,239,670**	**$8,069,053,935**
48-state total	**$8,253,169,449**	**$8,075,978,508**	**$7,950,109,197**	**$7,633,512,804**	**$7,817,135,653**	**$8,057,098,103**
AK	$45,881,819	$41,484,528	$40,413,031	$40,569,305	$40,920,150	$43,412,600
AL	$102,543,966	$103,561,954	$106,594,659	$91,724,816	$94,587,648	$100,785,027
AR	$68,700,458	$70,868,117	$71,918,511	$71,833,856	$67,632,379	$73,508,037
AZ	$134,048,733	$122,144,333	$143,211,277	$131,249,028	$140,315,109	$148,662,395
CA	$2,418,299,852	$2,313,954,985	$2,339,734,009	$2,038,628,297	$2,167,408,767	$2,340,203,000
CO	$102,245,637	$105,781,249	$102,281,754	$114,422,568	$107,848,023	$110,335,557
CT	$108,994,271	$105,275,359	$98,820,125	$90,520,643	$94,057,511	$96,348,893
DE	$47,973,022	$48,761,438	$53,129,074	$56,787,562	$54,828,688	$57,682,085
FL	$450,621,676	$435,708,724	$427,195,599	$406,295,699	$392,107,310	$366,124,529
GA	$226,592,309	$220,973,440	$211,102,773	$206,015,183	$204,407,926	$199,359,072
HI	$20,717,894	$19,974,332	$20,702,908	$21,149,064	$20,441,347	$23,465,881
IA	$39,601,878	$40,140,611	$38,604,672	$38,669,387	$39,353,931	$41,704,035
ID	$27,009,166	$26,808,516	$28,270,268	$30,118,733	$32,356,314	$42,121,101
IL	$155,620,713	$163,861,898	$152,962,376	$147,336,517	$164,302,129	$171,468,287
IN	$104,218,321	$113,921,885	$102,766,903	$105,932,532	$103,263,215	$93,019,644
KS	$51,138,351	$51,495,060	$51,968,725	$52,565,053	$54,673,901	$57,822,490
KY	$76,595,848	$77,245,531	$75,975,624	$78,043,175	$77,684,600	$79,253,567
LA	$51,527,340	$51,263,303	$51,319,107	$47,159,065	$66,906,062	$74,791,140
MA	$104,000,220	$102,802,451	$103,724,975	$102,578,073	$93,895,493	$96,447,502
MD	$166,087,180	$174,030,278	$172,770,890	$166,247,521	$169,460,407	$169,197,222
ME	$16,837,384	$18,153,028	$17,522,971	$12,978,479	$13,977,402	$15,534,162
MI	$366,135,428	$351,528,100	$386,940,853	$399,983,869	$376,912,882	$368,557,916
MN	$66,938,702	$70,128,664	$69,477,393	$70,488,561	$71,164,361	$75,897,019
MO	$147,947,131	$152,305,833	$157,655,955	$160,316,020	$166,867,566	$156,965,966
MS	$58,683,872	$54,609,456	$54,694,795	$66,154,638	$72,880,143	$67,770,994
MT	$30,370,984	$31,266,340	$35,046,710	$35,165,086	$34,134,311	$37,113,391
NC	$292,589,842	$271,638,213	$253,011,419	$255,682,229	$256,569,387	$261,634,369

Continued on next page

State	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
ND	No data provided	No data provided	$9,328,168	$9,480,118	$11,104,017	$11,955,832
NE	$33,761,791	$34,576,217	$36,681,672	$36,831,845	$41,716,129	$46,175,690
NH	No data provided	No data provided	No data provided	No data provided	No data provided	No data provided
NJ	$164,693,969	$158,182,983	$155,587,756	$165,897,151	$168,232,851	$163,305,683
NM	$50,128,865	$47,765,456	$46,897,835	$41,750,370	$42,780,830	$42,865,600
NV	$51,690,529	$49,558,008	$43,499,868	$46,141,084	$45,862,425	$41,270,369
NY	$396,952,963	$383,905,151	$357,727,447	$366,068,163	$353,898,077	$374,745,588
OH	$319,812,253	$296,819,776	$258,089,776	$250,891,745	$241,059,384	$231,124,783
OK	$68,585,943	$66,750,143	$68,050,630	$70,701,504	$71,915,070	$71,501,736
OR	$99,823,233	$110,556,426	$103,700,041	$120,149,646	$111,563,183	$122,936,099
PA	$251,926,837	$261,941,981	$251,145,756	$226,812,166	$239,828,626	$231,123,000
RI	$21,069,306	$20,488,469	$21,666,415	$20,973,375	$20,740,523	$21,960,881
SC	$71,156,074	$67,226,401	$69,905,914	$68,519,327	$70,509,938	$75,728,018
SD	$16,340,313	$16,429,125	$15,098,228	$16,383,706	$19,250,248	$19,910,914
TN	$99,265,839	$102,179,420	$104,050,481	$110,785,948	$127,000,379	$122,114,655
TX	$622,158,263	$619,196,843	$548,393,074	$559,682,505	$593,363,318	$608,068,075
UT	$29,260,244	$28,635,305	$29,173,488	$29,183,014	$29,426,244	$31,797,675
VA	$159,118,426	$159,548,884	$162,234,807	$163,798,021	$153,376,913	$171,281,948
VT	$18,275,196	$23,707,285	$20,669,489	$22,102,909	$22,341,511	$22,132,931
WA	$122,349,010	$113,056,865	$115,358,267	$108,398,351	$111,822,013	$115,311,761
WI	$123,347,318	$125,296,353	$124,698,612	$121,257,833	$124,545,936	$126,202,347
WV	$26,571,441	$24,648,300	$21,962,348	$22,021,473	$23,910,778	$23,377,603
WY	$24,959,643	$25,821,490	$27,699,938	$26,547,711	$25,034,314	$24,976,866

Notes: Spending—funded by state or federal funds—includes health care provided to individuals under the jurisdiction of the corrections department, counting: 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).

Amounts are in 2015 dollars. Nominal spending data for fiscal 2010-2014 were converted to 2015 dollars using the Implicit Price Deflator for Gross Domestic Product included in the Bureau of Economic Analysis' National Income and Product Accounts.

The 49-state total excludes New Hampshire. The 48-state total excludes New Hampshire and North Dakota. New Hampshire did not respond to the survey, and North Dakota did not report values for fiscal year 2010 or 2011. See Appendix B: State data notes for further information.

Table C.2

Total Average Daily Population Under the Jurisdiction of Corrections Departments

FY 2010-15

State	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
49-state total	**1,362,996**	**1,358,852**	**1,345,203**	**1,326,215**	**1,325,179**	**1,312,742**
Alabama	31,975	32,316	32,554	32,523	31,999	31,162
Alaska	5,444	5,673	5,774	5,922	6,065	5,997
Arizona	40,459	40,227	40,011	40,047	41,085	42,131
Arkansas	14,800	15,742	14,789	14,405	16,510	17,562
California	152,799	147,438	137,463	123,572	122,563	118,215
Colorado	22,801	22,690	21,891	20,402	20,303	20,528
Connecticut	19,545	19,098	18,392	17,694	17,812	17,312
Delaware	6,764	6,612	6,685	6,920	6,988	6,860
Florida	101,391	102,094	100,928	100,142	100,768	100,567
Georgia	58,540	56,670	57,322	58,150	55,600	55,222
Hawaii	5,673	5,746	5,802	5,535	5,500	5,669
Idaho	7,495	7,578	8,097	8,177	8,293	8,120
Illinois	44,979	47,431	47,582	48,281	47,988	47,612
Indiana	28,332	28,197	28,098	28,405	29,342	28,656
Iowa	8,384	8,816	8,574	8,213	8,161	8,195
Kansas	8,689	9,025	9,267	9,507	9,598	9,697
Kentucky	20,443	20,094	20,854	21,155	20,297	21,062
Louisiana	39,822	39,683	40,460	39,926	39,062	37,300
Maine	2,114	2,067	1,983	1,955	2,089	2,100
Maryland	25,469	25,717	25,193	24,500	24,145	23,419
Massachusetts	11,484	11,594	11,864	11,529	11,101	10,779
Michigan	45,652	44,262	44,025	44,423	44,702	44,475
Minnesota	9,162	9,230	9,123	9,278	9,201	9,303
Mississippi	21,336	21,019	21,569	22,308	21,787	19,499
Missouri	30,447	30,595	30,914	31,245	31,670	32,124
Montana	4,244	4,309	4,365	4,481	4,546	4,591
Nebraska	4,462	4,552	4,609	4,760	5,039	5,380
Nevada	12,529	12,466	12,428	12,605	12,739	12,714
New Hampshire	No data	No data	No data	No data	No data	No data
New Jersey	23,635	23,733	23,203	22,574	21,836	20,966
New Mexico	6,455	6,599	6,590	6,643	6,819	6,996
New York	59,237	57,054	55,932	54,981	54,049	53,181
North Carolina	40,102	41,030	38,385	37,469	37,665	37,794
North Dakota	1,479	1,477	1,459	1,527	1,567	1,696

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State	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Ohio	48,796	48,602	50,092	49,752	50,335	50,452
Oklahoma	24,549	24,511	24,257	24,831	25,645	27,051
Oregon	13,817	14,116	13,947	14,282	14,554	14,539
Pennsylvania	51,275	51,270	51,533	51,355	51,368	50,816
Rhode Island	3,502	3,273	3,191	3,160	3,214	3,182
South Carolina	24,710	23,939	23,334	22,680	22,315	21,773
South Dakota	3,450	3,434	3,546	3,623	3,627	3,588
Tennessee	28,206	28,822	29,997	30,713	30,670	29,634
Texas	154,315	155,830	154,933	151,116	150,620	149,159
Utah	6,645	6,876	6,908	7,025	7,163	6,973
Vermont	1,578	1,554	1,582	1,579	1,620	1,610
Virginia	38,178	37,983	37,849	38,339	38,871	38,761
Washington	17,097	17,044	17,004	17,406	17,346	17,198
West Virginia	6,186	6,704	6,887	7,073	6,807	6,912
Wisconsin	22,684	22,155	21,992	22,036	22,060	22,094
Wyoming	1,865	1,906	1,966	1,991	2,075	2,117

Notes: With some exceptions (See Appendix B: State data notes), totals reflect the population under the jurisdiction of the corrections department, including those individuals held in the custody of private prisons and/or local jails.

Table C.3

Per-Inmate Corrections Department Health Care Spending, Adjusted for Inflation

FY 2010-15

State	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Percentage change
49-state median	-	-	**$5,596**	**$5,510**	**$5,467**	**$5,720**	-
48-state median	**$5,563**	**$5,521**	**$5,484**	**$5,456**	**$5,420**	**$5,680**	**2%**
Alabama	$3,207	$3,205	$3,274	$2,820	$2,956	$3,234	1%
Alaska	$8,428	$7,313	$6,999	$6,851	$6,747	$7,239	-14%
Arizona	$3,683	$3,072	$3,579	$3,277	$3,417	$3,529	-4%
Arkansas	$4,642	$4,502	$4,863	$4,987	$4,096	$4,186	-10%
California	$15,827	$15,694	$17,021	$16,497	$17,684	$19,796	25%
Colorado	$5,807	$5,819	$5,776	$6,941	$6,532	$6,641	14%
Connecticut	$5,577	$5,512	$5,373	$5,116	$5,281	$5,565	0%
Delaware	$7,092	$7,375	$7,948	$8,206	$7,846	$8,408	19%
Florida	$4,831	$4,699	$4,702	$4,513	$4,325	$4,050	-16%
Georgia	$3,871	$3,899	$3,683	$3,543	$3,676	$3,610	-7%
Hawaii	$5,550	$4,897	$5,019	$5,133	$4,941	$5,422	-2%
Idaho	$4,942	$5,129	$4,983	$5,308	$5,467	$5,641	14%
Illinois	$3,478	$3,471	$3,231	$3,067	$3,439	$3,619	4%
Indiana	$3,678	$4,040	$3,657	$3,729	$3,519	$3,246	-12%
Iowa	$4,724	$4,553	$4,503	$4,708	$4,822	$5,089	8%
Kansas	$5,885	$5,706	$5,641	$5,558	$5,696	$5,999	2%
Kentucky	$3,747	$3,844	$3,643	$3,689	$3,827	$3,763	0%
Louisiana	$1,396	$1,394	$1,368	$1,282	$1,864	$2,173	56%
Maine	$7,965	$8,782	$8,837	$6,639	$6,691	$7,397	-7%
Maryland	$6,566	$6,813	$6,908	$6,841	$7,071	$7,280	11%
Massachusetts	$9,056	$8,867	$8,743	$8,897	$8,458	$8,948	-1%
Michigan	$8,020	$7,942	$8,789	$9,004	$8,432	$8,287	3%
Minnesota	$7,415	$7,657	$7,616	$7,630	$7,734	$8,158	10%
Mississippi	$4,058	$3,873	$3,683	$3,296	$3,691	$3,770	-7%
Missouri	$4,909	$5,027	$5,156	$5,185	$5,325	$4,942	1%
Montana	$7,156	$7,256	$8,029	$7,848	$7,509	$8,084	13%
Nebraska	$7,567	$7,596	$7,959	$7,738	$8,279	$8,583	13%
Nevada	$4,126	$3,975	$3,500	$3,661	$3,600	$3,246	-21%
New Hampshire	No data	No data	No data	No data	No data	No data	-
New Jersey	$6,968	$6,665	$6,706	$7,349	$7,704	$7,789	12%
New Mexico	$13,917	$12,833	$12,696	$11,464	$12,054	$12,293	-12%

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State	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	Percentage change
New York	$6,701	$6,729	$6,396	$6,658	$6,548	$7,047	5%
North Carolina	$7,296	$6,620	$6,591	$6,824	$6,812	$6,923	-5%
North Dakota	No data	No data	$6,394	$6,208	$7,086	$7,049	-
Ohio	$6,860	$6,395	$5,596	$5,535	$5,251	$5,023	-27%
Oklahoma	$3,779	$3,704	$3,790	$3,939	$3,962	$3,706	-2%
Oregon	$7,225	$7,832	$7,435	$8,413	$7,665	$8,456	17%
Pennsylvania	$4,913	$5,109	$4,873	$4,417	$4,669	$4,548	-7%
Rhode Island	$6,016	$6,260	$6,790	$6,637	$6,453	$6,902	15%
South Carolina	$2,880	$2,808	$2,996	$3,021	$3,160	$3,478	21%
South Dakota	$4,781	$4,835	$4,311	$4,569	$5,373	$5,626	18%
Tennessee	$4,911	$5,002	$5,142	$5,402	$5,978	$6,001	22%
Texas	$4,032	$3,974	$3,540	$3,704	$3,939	$4,077	1%
Utah	$4,404	$4,165	$4,223	$4,154	$4,108	$4,560	4%
Vermont	$11,581	$15,256	$13,065	$13,998	$13,791	$13,747	19%
Virginia	$5,438	$5,530	$5,764	$5,761	$5,332	$5,937	9%
Washington	$7,156	$6,633	$6,784	$6,228	$6,447	$6,705	-6%
West Virginia	$5,260	$4,840	$4,261	$4,146	$4,225	$3,970	-25%
Wisconsin	$5,608	$5,772	$5,702	$5,510	$5,655	$5,720	2%
Wyoming	$13,382	$13,548	$14,087	$13,332	$12,066	$11,798	-12%

Notes: Amounts are in 2015 dollars. Nominal spending data for fiscal 2010-15 were converted to 2015 dollars using the Implicit Price Deflator for Gross Domestic Product included in the Bureau of Economic Analysis' National Income and Product Accounts.

Per-inmate spending includes health care provided to those individuals under the jurisdiction of the state corrections department who are held in the custody of private prisons and/or local jails. In Arizona, Colorado, Florida, Hawaii, Idaho, Illinois, Kansas, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Montana, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, South Dakota, Tennessee, Virginia, West Virginia, and Wisconsin, per-inmate spending either excludes certain individuals under the jurisdiction of the state corrections department or includes individuals outside of that jurisdiction. (See Appendix B: State data notes.)

The 49-state total excludes New Hampshire. The 48-state total excludes New Hampshire and North Dakota. New Hampshire did not respond to the survey, and North Dakota did not report total spending for fiscal years 2010 and 2011.

Table C.4

Health Care Services Delivery System for Inmates Under State Custody, FY 2015

State	Direct-provision	Contracted-provision	State university	Hybrid
	17 states	20 states	4 states	8 states
Alabama		✓		
Alaska	✓			
Arizona		✓		
Arkansas		✓		
California	✓			
Colorado				✓
Connecticut			✓	
Delaware		✓		
Florida		✓		
Georgia			✓	
Hawaii	✓			
Idaho		✓		
Illinois		✓		
Indiana		✓		
Iowa	✓			
Kansas		✓		
Kentucky		✓		
Louisiana				✓
Maine		✓		
Maryland		✓		
Massachusetts		✓		
Michigan				✓
Minnesota				✓
Mississippi		✓		
Missouri		✓		
Montana				✓
Nebraska	✓			
Nevada	✓			
New Hampshire	No data provided	No data provided	No data provided	No data provided
New Jersey			✓	
New Mexico		✓		
New York	✓			
North Carolina	✓			

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State	Direct-provision	Contracted-provision	State university	Hybrid
North Dakota	✓			
Ohio	✓			
Oklahoma	✓			
Oregon	✓			
Pennsylvania				✓
Rhode Island				✓
South Carolina	✓			
South Dakota	✓			
Tennessee		✓		
Texas			✓	
Utah	✓			
Vermont		✓		
Virginia				✓
Washington	✓			
West Virginia		✓		
Wisconsin	✓			
Wyoming		✓		

Table C.5

Contractor Payment Models, FY 2015

State	Capitation	Cost-plus	Other
	19 states	2 states	7 states
Alabama			✓
Arizona	✓		
Arkansas	✓		
Colorado			✓
Delaware	✓		
Florida	✓		
Idaho	✓		
Illinois	✓		
Indiana	✓		
Kansas	✓		
Kentucky	✓		
Louisiana			✓
Maine			✓
Maryland	✓		
Massachusetts	✓		
Michigan			✓
Minnesota	✓		
Mississippi	✓		
Missouri	✓		
Montana		✓	
New Mexico	✓		
Pennsylvania		✓	
Rhode Island			✓
Tennessee	✓		
Vermont	✓		
Virginia	✓		
West Virginia			✓
Wyoming	✓		

Note: These data reflect reported payment models for contracted-provision and hybrid states, excluding direct-provision and states that partner with medical schools or affiliated organizations. New Hampshire did not provide data.

Table C.6

Disaggregated Spending Submission

State	Provided disaggregated data using categories provided	Provided disaggregated data using own categories	Provided no disaggregated data
	7 states	27 states	17 states
Alabama			✓
Alaska		✓	
Arizona		✓	
Arkansas			✓
California		✓	
Colorado		✓	
Connecticut		✓	
Delaware			✓
Florida			✓
Georgia		✓	
Hawaii			✓
Idaho		✓	
Illinois			✓
Indiana			✓
Iowa		✓	
Kansas	✓	✓	
Kentucky	✓	✓	
Louisiana		✓	
Maine	✓		
Maryland		✓	
Massachusetts			✓
Michigan		✓	
Minnesota			✓
Mississippi			✓
Missouri	✓		
Montana		✓	
Nebraska			✓
Nevada		✓	
New Hampshire	No data provided	No data provided	No data provided

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State	Provided disaggregated data using categories provided	Provided disaggregated data using own categories	Provided no disaggregated data
New Jersey		✓	
New Mexico			✓
New York	✓		
North Carolina		✓	
North Dakota		✓	
Ohio	✓		
Oklahoma			✓
Oregon		✓	
Pennsylvania			✓
Rhode Island		✓	
South Carolina		✓	
South Dakota	✓		
Tennessee			✓
Texas		✓	
Utah		✓	
Vermont			✓
Virginia		✓	
Washington		✓	
West Virginia		✓	
Wisconsin		✓	
Wyoming			✓

Table C.7

Number of Health Professional FTEs Per 1,000 Individuals Under State Custody, FY 2015

State	FTEs for every 1,000 inmates in custody
43-state median	**40.1**
Alabama	25.3
Alaska	36.8
Arizona	26.6
Arkansas	32.3
California	69.9
Colorado	43.9
Connecticut	48.6
Delaware	58.6
Florida	-
Georgia	32.1
Hawaii	72.3
Idaho	36.6
Illinois	19.3
Indiana	25.4
Iowa	-
Kansas	51.3
Kentucky	35.7
Louisiana	23.4
Maine	79.3
Maryland	54.2
Massachusetts	60.2
Michigan	36.8
Minnesota	59.1
Mississippi	38.1
Missouri	29.1
Montana	50.7
Nebraska	44.0
Nevada	24.5
New Hampshire	No data provided
New Jersey	46.5
New Mexico	86.8
New York	35.9

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State	FTEs for every 1,000 inmates in custody
North Carolina	45.3
North Dakota	44.9
Ohio	27.4
Oklahoma	18.6
Oregon	35.8
Pennsylvania	25.7
Rhode Island	–
South Carolina	25.0
South Dakota	44.8
Tennessee	58.7
Texas	27.2
Utah	–
Vermont	52.2
Virginia	–
Washington	43.0
West Virginia	40.1
Wisconsin	–
Wyoming	57.7

Notes: This table reflects the number of health professional employees—measured as the number of full-time equivalents to account for part-time and full-time employees—per 1,000 inmates under the **custody** of the corrections department. In most states, the vast majority of inmates under their jurisdiction are also under their custody.

Most states reported either a one-day snapshot or average daily FTE totals, with a small minority basing some or all of their staffing figures on the number budgeted for in contracts.

Most states provided data for fiscal 2015, but 13 provided them for fiscal 2016.

Six states (Florida, Iowa, Rhode Island, Utah, Virginia, and Wisconsin) were excluded from the staffing-level analysis because they submitted staffing data that were incomplete or not comparable.

(See Appendix B: State data notes.)

Table C.8

Number of Health Professional FTEs by Medical Profession

State	Physicians	Psychiatrists	Dentists	Physician assistants and nurse practitioners	Other clinical mental health professionals	Pharmacists
Alabama	–	–	–	–	–	–
Alaska	3	3	2	13	40	1
Arizona	11	9	18	27	125	0
Arkansas	–	–	–	–	–	–
California	315	0	0	61	657	174
Colorado	8	18	10	38	219	4
Connecticut	18	10	13	14	108	13
Delaware	9	4	7	20	43	5
Florida	–	–	–	–	–	–
Georgia	57	24	24	49	210	23
Hawaii	6	7	1	2	42	0
Idaho	3	2	5	12	66	0
Illinois	42	17	33	22	85	4
Indiana	32	7	16	3	82	0
Iowa	–	–	–	–	–	–
Kansas	8	10	22	0	148	1
Kentucky	9	33	10	20	125	0
Louisiana	–	–	–	–	–	–
Maine	3	4	2	6	43	0
Maryland	74	45	24	64	101	8
Massachusetts	11	17	7	20	144	1
Michigan	45	46	39	66	142	2
Minnesota	15	5	14	8	205	0
Mississippi	14	11	8	11	27	2
Missouri	34	18	27	9	162	1
Montana	3	1	3	3	13	0
Nebraska	–	–	–	–	–	–
Nevada	11	6	8	1	61	3
New Hampshire	No data	No data	No data	No data	No data	No data
New Jersey	57	5	19	20	327	1
New Mexico	9	7	7	13	49	1
New York	90	0	156	40	66	100
North Carolina	45	15	32	26	108	97
North Dakota	1	0	1	3	32	2
Ohio	43	19	1	50	299	0

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State	Physicians	Psychiatrists	Dentists	Physician assistants and nurse practitioners	Other clinical mental health professionals	Pharmacists
Oklahoma	20	9	18	19	47	1
Oregon	15	4	22	20	52	7
Pennsylvania	40	29	33	70	33	0
Rhode Island	–	–	–	–	–	–
South Carolina	9	6	18	8	61	5
South Dakota	–	–	–	–	–	–
Tennessee	22	3	15	29	144	4
Texas	77	23	84	161	283	45
Utah	–	–	–	–	–	–
Vermont	8	2	3	4	14	0
Virginia	–	–	–	–	–	–
Washington	15	8	22	46	125	12
West Virginia	–	–	–	–	–	–
Wisconsin	–	–	–	–	–	–
Wyoming	3	1	4	3	20	0

State	Nurses	Other clinically trained staff	Paraprofessionals	Health care administrative staff	Other staff
Alabama	–	–	–	–	–
Alaska	133	3	5	15	0
Arizona	358	15	180	186	0
Arkansas	–	–	–	–	–
California	3,535	58	493	602	2,365
Colorado	274	8	29	30	86
Connecticut	406	18	24	123	94
Delaware	180	10	49	23	0
Florida	–	–	–	–	–
Georgia	512	26	110	325	0
Hawaii	76	9	7	12	0
Idaho	113	3	24	26	0
Illinois	450	20	134	106	0
Indiana	283	139	65	76	0
Iowa	–	–	–	–	–
Kansas	184	63	70	10	0
Kentucky	201	6	4	24	0
Louisiana	–	–	–	–	–
Maine	64	0	4	40	0
Maryland	664	11	37	229	0

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State	Nurses	Other clinically trained staff	Paraprofessionals	Health care administrative staff	Other staff
Massachusetts	211	18	80	117	0
Michigan	520	26	141	610	0
Minnesota	178	4	17	103	1
Mississippi	201	3	70	20	0
Missouri	457	181	0	34	0
Montana	35	1	16	9	0
Nebraska	–	–	–	–	–
Nevada	145	7	33	37	0
New Hampshire	No data	No data	No data	No data	No data
New Jersey	287	16	103	96	44
New Mexico	134	3	29	51	0
New York	798	28	263	41	327
North Carolina	850	29	221	117	172
North Dakota	26	0	8	3	0
Ohio	727	30	0	93	0
Oklahoma	151	0	44	49	0
Oregon	222	3	71	99	6
Pennsylvania	685	49	71	261	0
Rhode Island	–	–	–	–	–
South Carolina	311	8	57	48	0
South Dakota	–	–	–	–	–
Tennessee	470	8	66	128	0
Texas	1,373	95	740	881	0
Utah	–	–	–	–	–
Vermont	65	6	8	14	2
Virginia	–	–	–	–	–
Washington	276	15	80	140	1
West Virginia	–	–	–	–	–
Wisconsin	–	–	–	–	–
Wyoming	48	12	11	16	0

Notes: Most states reported either a one-day snapshot or average daily FTE totals, with a small minority basing some or all of their staffing figures on the number budgeted for in contracts. Most states provided data for fiscal 2015, but 13 provided them for fiscal 2016. Twelve states (Alabama, Arkansas, Florida, Iowa, Louisiana, Nebraska, Rhode Island, South Dakota, Utah, Virginia, West Virginia, and Wisconsin) were removed from the table because they provided incomplete or no data by staff position.

The reported amounts include corrections department, state university, and other state agency employees, as well as contracted staff. They include staff based both in correctional facilities and administrative offices. Amounts are rounded to the nearest FTE. Other clinical mental health professionals included psychologists, mental health counselors, clinical social workers, and psychiatric technicians. Nurses included licensed practical nurses and registered nurses. Other clinically trained staff included occupational therapists, physical therapists, recreational therapists, radiology technicians, and lab technicians. Paraprofessionals included nurse technicians, certified nursing assistants, medical assistants, orderlies, aides, dental assistants, and pharmacy technicians. New York's disaggregated staffing data do not include psychiatrists from the state Office of Mental Health (OMH) who provide care to individuals under the jurisdiction of the state corrections department. The state did not report a count for these employees. (See Appendix B: State data notes.)

Table C.9

State Prison Population Distribution by Age

State	Proportion of inmates age 55+, FY 2010	Proportion of inmates age 55+, FY 2015	Change in number of inmates age 55+, FY 2010-15	Proportion of inmates age 40-54, FY 2015
Alabama	–	–	–	–
Alaska	6.8%	9.9%	60.3%	27.4%
Arizona	6.0%	8.7%	51.0%	29.1%
Arkansas	7.6%	10.4%	62.4%	30.2%
California	8.0%	12.0%	16.0%	30.3%
Colorado	7.1%	10.6%	34.7%	29.5%
Connecticut	4.5%	6.8%	32.0%	27.1%
Delaware	5.8%	8.9%	54.2%	25.2%
Florida	8.0%	12.0%	48.8%	28.0%
Georgia	6.8%	9.6%	33.2%	29.1%
Hawaii	8.0%	11.0%	37.4%	34.0%
Idaho	7.0%	9.0%	39.3%	28.0%
Illinois	5.6%	8.5%	60.7%	29.7%
Indiana	5.5%	7.6%	39.3%	25.5%
Iowa	–	–	–	–
Kansas	7.1%	11.0%	72.9%	29.0%
Kentucky	6.4%	7.7%	23.5%	26.6%
Louisiana	7.2%	10.9%	41.1%	30.3%
Maine	9.0%	10.0%	10.4%	27.0%
Maryland	6.1%	9.0%	35.7%	29.0%
Massachusetts	10.4%	14.4%	30.0%	33.1%
Michigan	9.4%	–	–	–
Minnesota	5.0%	8.0%	62.5%	27.0%
Mississippi	5.7%	9.3%	49.3%	27.1%
Missouri	6.7%	10.2%	60.6%	29.4%
Montana	8.0%	12.0%	62.3%	–
Nebraska	7.3%	9.9%	63.5%	27.7%
Nevada	9.6%	13.1%	37.5%	31.7%
New Hampshire	No data	No data	No data	No data
New Jersey	5.3%	7.9%	31.1%	29.1%
New Mexico	7.2%	9.4%	41.5%	28.7%
New York	7.0%	9.0%	15.4%	31.0%
North Carolina	6.4%	10.3%	51.7%	31.3%
North Dakota	6.4%	7.6%	37.4%	23.9%
Ohio	7.1%	10.3%	50.0%	26.7%
Oklahoma	8.0%	11.0%	51.5%	31.0%

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State	Proportion of inmates age 55+, FY 2010	Proportion of inmates age 55+, FY 2015	Change in number of inmates age 55+, FY 2010-15	Proportion of inmates age 40-54, FY 2015
Oregon	10.0%	12.6%	32.1%	30.9%
Pennsylvania	7.9%	11.3%	41.8%	28.6%
Rhode Island	5.8%	8.8%	37.9%	27.5%
South Carolina	6.4%	9.9%	36.3%	28.7%
South Dakota	–	9.7%	–	25.2%
Tennessee	–	8.7%	–	28.4%
Texas	8.2%	11.2%	32.0%	31.1%
Utah	8.4%	11.3%	41.6%	29.8%
Vermont	8.0%	11.0%	40.3%	27.0%
Virginia	7.0%	10.0%	45.0%	32.0%
Washington	7.8%	10.5%	35.2%	30.6%
West Virginia	11.0%	13.0%	32.1%	29.0%
Wisconsin	6.9%	10.3%	45.4%	29.8%
Wyoming	9.2%	12.4%	53.0%	–

Notes: Age distribution data reflect proportions of the average daily population under the jurisdiction of the state corrections department, including individuals held in private prisons or local jails.

Five states (Alabama, Iowa, Michigan, South Dakota, and Tennessee) either did not track inmates by the age brackets surveyed or did not report data to Pew and Vera for fiscal 2010 and 2015. Montana and Wyoming reported data only for the proportion of inmates age 55 and over. Kansas' data for fiscal 2010 were reported from a prior survey by Pew and Vera. New Hampshire provided no data at all. (See Appendix B: State data notes.)

Table C.10

Female Share of State Prison Population, 2015

State	Percentage of females
50-state median	**8.4%**
Alabama	8.4%
Alaska	10.8%
Arizona	9.3%
Arkansas	7.9%
California	4.5%
Colorado	9.2%
Connecticut	7.1%
Delaware	8.1%
Florida	6.8%
Georgia	6.9%
Hawaii	11.9%
Idaho	12.2%
Illinois	5.8%
Indiana	9.3%
Iowa	9.1%
Kansas	8.5%
Kentucky	11.9%
Louisiana	5.6%
Maine	9.1%
Maryland	4.4%
Massachusetts	6.6%
Michigan	5.3%
Minnesota	7.1%
Mississippi	7.0%
Missouri	10.1%
Montana	10.6%
Nebraska	8.0%
Nevada	8.9%
New Hampshire	8.1%
New Jersey	4.4%
New Mexico	9.8%
New York	4.6%
North Carolina	7.3%

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State	Percentage of females
North Dakota	11.6%
Ohio	8.5%
Oklahoma	10.7%
Oregon	8.6%
Pennsylvania	5.7%
Rhode Island	4.5%
South Carolina	6.5%
South Dakota	11.7%
Tennessee	9.4%
Texas	8.8%
Utah	7.9%
Vermont	8.6%
Virginia	8.4%
Washington	8.0%
West Virginia	12.2%
Wisconsin	6.1%
Wyoming	11.0%

Notes: Percentages represent those under jurisdiction of state correctional authorities on Dec. 31, 2015. Percentages were imputed by the Bureau of Justice Statistics (BJS) for Nevada and Oregon, which did not submit 2015 data to BJS. Percentages for Alaska, Connecticut, Delaware, Hawaii, Rhode Island, and Vermont reflect jail and prison populations, as prisons and jails form one integrated system.

Source: U.S. Department of Justice, Bureau of Justice Statistics

Table C.11

Disease Prevalence Tracked, FY 2016

State	Infectious diseases			Chronic diseases						Behavioral health conditions			Geriatric conditions		Developmental disabilities
	HIV/AIDS	Chronic hepatitis C	Active tuberculosis	Asthma	Chronic obstructive pulmonary disease	Cardiovascular diseases and stroke	Cancers	Diabetes	Hypertension	Mood disorders	Anxiety disorders	Substance use disorder	Dementia	Cognitive impairment	
Alaska	✓	✓	✓												
Arizona	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Arkansas	✓	✓	✓	✓	✓	✓		✓	✓						
California	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
Colorado	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connecticut	✓		✓												
Delaware	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Florida						✓									
Georgia	✓	✓	✓							✓	✓	✓	✓	✓	✓
Hawaii	✓	✓	✓					✓							
Idaho	✓	✓	✓			✓	✓	✓	✓						
Illinois	✓	✓	✓	✓		✓		✓	✓	✓	✓				
Indiana	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Iowa	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		
Kentucky	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Louisiana	✓	✓	✓	✓	✓		✓	✓	✓			✓			
Maine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Maryland	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Massachusetts	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓
Michigan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Minnesota	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mississippi	✓	✓	✓												
Missouri	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Montana	✓	✓	✓	✓	✓	✓		✓	✓						✓

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State	Infectious diseases			Chronic diseases						Behavioral health conditions			Geriatric conditions		Developmental disabilities
	HIV/AIDS	Chronic hepatitis C	Active tuberculosis	Asthma	Chronic obstructive pulmonary disease	Cardiovascular diseases and stroke	Cancers	Diabetes	Hypertension	Mood disorders	Anxiety disorders	Substance use disorder	Dementia	Cognitive impairment	
Nebraska	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓			
Nevada	✓		✓	✓	✓	✓	✓	✓	✓						
New Jersey	✓	✓	✓	✓				✓	✓			✓			
New Mexico	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			
New York	✓	✓	✓	✓				✓	✓			✓	✓	✓	✓
North Carolina	✓		✓												
North Dakota	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			
Ohio	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oklahoma	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oregon	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
Pennsylvania	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Rhode Island	✓	✓						✓							
South Carolina	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
South Dakota	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Tennessee	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Texas	✓	✓	✓									✓			
Utah	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vermont	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Virginia	✓		✓												
Washington	✓	✓	✓				✓	✓	✓						
West Virginia	✓	✓	✓							✓		✓			
Wisconsin	✓	✓	✓	✓				✓	✓						✓
Wyoming	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓

Notes: Though Florida reported that the prevalence of only one of the conditions surveyed (cardiovascular diseases and stroke) was tracked by its department of corrections, the department's chronic illness clinics (immunity, cardiac, gastrointestinal, respiratory, endocrine, tuberculosis, neurology, oncology, and miscellaneous) facilitate prevalence tracking of broader sets of conditions. For example, individuals with HIV/AIDS would be enrolled in the immunity clinic and those with hepatitis C would be enrolled in the gastrointestinal clinic.

In Wisconsin, rather than the prevalence of specific conditions, the prevalence of condition groupings by severity of mental illness is tracked.

Table C.12

State Prison Health Care Quality Monitoring Systems, FY 2016

				Quality monitoring system attributes	
State	Statewide CQI policy	Mortality review	Quality monitoring system	Data routinely shared with legislature or public	System required by legislation, executive order, or regulation
Alaska		✓			
Arizona	✓	✓	✓	✓	
Arkansas	✓	✓	✓		
California	✓	✓	✓	✓	
Colorado	✓	✓	✓		
Connecticut	✓				
Delaware	✓	✓			
Florida	✓	✓	✓	✓	✓
Georgia	✓	✓	✓		
Hawaii	✓	✓			
Idaho	✓	✓	✓	✓	
Illinois	✓	✓	✓		
Indiana	✓	✓	✓		
Iowa		✓			
Kentucky	✓	✓	✓	✓	
Louisiana	✓	✓	✓		
Maine	✓	✓	✓		
Maryland	✓	✓	✓		
Massachusetts		✓	✓	✓	
Michigan	✓	✓	✓	✓	
Minnesota	✓	✓	✓	✓	
Mississippi	✓	✓	✓		
Missouri		✓	✓	✓	
Montana	✓	✓			
Nebraska	✓	✓	✓	✓	✓
Nevada	✓	✓	✓	✓	✓
New Jersey	✓	✓	✓	✓	✓
New Mexico		✓	✓	✓	
New York	✓	✓	✓	✓	✓
North Carolina	✓	✓			
North Dakota	✓				
Ohio	✓	✓	✓	✓	
Oklahoma	✓	✓	✓		

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				Quality monitoring system attributes	
State	Statewide CQI policy	Mortality review	Quality monitoring system	Data routinely shared with legislature or public	System required by legislation, executive order, or regulation
Oregon	✓	✓			
Pennsylvania	✓	✓	✓		
Rhode Island	✓	✓			
South Carolina		✓	✓		
South Dakota	✓	✓	✓		
Tennessee	✓	✓	✓	✓	
Texas	✓	✓	✓	✓	✓
Utah	✓	✓	✓		
Vermont	✓	✓	✓	✓	
Virginia	✓				
Washington	✓		✓	✓	
West Virginia		✓			
Wisconsin	✓	✓	✓		
Wyoming	✓	✓	✓	✓	

Note: At the time of data collection, South Carolina reported that it was developing a statewide continuous quality improvement policy.

Table C.13

State Prison Health Care Quality Monitoring Systems: Domains Monitored, FY 2016

		AR	AZ	CA	CO	FL	GA	ID	IL	IN	KY	LA	MA	MD	ME	MI	MN	MO	MS	NE	NJ	NM	NV	NY	OH	OK	PA	SC	SD	TN	TX	UT	VT	WA	WI	WY
Access to care and utilization of services	Timely access to care	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓
	Timely and appropriate use of labs and imaging		✓	✓			✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓
	Timely and appropriate use of specialty care	✓	✓	✓			✓	✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓
	Triage response time	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓		✓	✓
	Grievance response time	✓	✓	✓			✓	✓		✓	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓			✓
	Other	✓																✓										✓					✓			
Screening and prevention services	Vaccinations		✓	✓	✓		✓			✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓			✓	✓	✓				✓
	Routine physical examinations		✓				✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓
	Cancer screening		✓	✓			✓			✓	✓		✓	✓	✓	✓		✓	✓			✓		✓		✓	✓			✓	✓	✓				✓
	Other	✓	✓		✓	✓																				✓		✓				✓	✓	✓		
Infectious diseases	HIV/AIDS	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓
	Hepatitis C	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓	✓	✓	✓	✓		✓	✓			✓		✓	✓		✓	✓	✓		✓	✓	✓	✓
	Tuberculosis	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓		✓
	Syphilis		✓		✓		✓			✓	✓		✓	✓	✓	✓				✓			✓	✓		✓	✓		✓	✓	✓		✓			✓
	Gonorrhea		✓		✓		✓						✓	✓	✓	✓				✓				✓			✓		✓	✓		✓	✓			✓
Chronic diseases	Cardiovascular diseases	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	✓	✓		✓		✓
	Pulmonary diseases	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	✓	✓				✓
	Metabolic diseases	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓
	Seizure disorders	✓	✓	✓			✓		✓	✓	✓		✓		✓	✓	✓			✓	✓		✓	✓		✓	✓		✓	✓	✓	✓				✓
	End-stage renal disease		✓	✓			✓	✓		✓		✓	✓		✓	✓	✓	✓		✓			✓		✓	✓		✓		✓	✓	✓				✓
Behavioral health conditions	Anxiety disorders		✓	✓			✓	✓		✓			✓	✓	✓	✓	✓			✓		✓		✓		✓	✓	✓		✓			✓			✓
	Mood disorders		✓	✓			✓	✓		✓	✓		✓		✓	✓	✓			✓		✓		✓		✓	✓	✓		✓	✓	✓	✓			✓
	Psychotic disorders		✓	✓			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓	✓			✓		✓	✓	✓		✓	✓	✓	✓			✓
	Suicide and self-harm		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓
	Substance use disorder		✓	✓	✓			✓		✓		✓	✓	✓	✓	✓	✓			✓	✓	✓		✓		✓	✓	✓				✓	✓			✓
	Other																																✓			
Geriatric conditions or services	Dementias and cognitive impairments		✓		✓		✓						✓											✓								✓				
	Movement disorders		✓										✓											✓								✓				
	Urinary incontinence												✓											✓								✓				
	Falls												✓				✓			✓				✓										✓		
	Pressure ulcers									✓			✓	✓						✓				✓								✓				
	Hospice				✓					✓		✓				✓				✓	✓			✓												
	Palliative care									✓		✓				✓	✓			✓	✓			✓								✓			✓	

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Notes: Arkansas's quality monitoring system does not include measures pertaining to the screening and prevention services queried by Pew and Vera (vaccinations, routine physical examinations, and cancer screening), but does include measures pertaining to the frequency of chronic care clinics (i.e., dedicated times for monitoring and managing patients with particular conditions).

In the area of screening and prevention, Colorado's quality monitoring system includes tuberculosis testing in addition to vaccinations.

While South Carolina reported monitoring only behavioral health at the time of data collection, measures in other areas were reportedly in development.

In the area of screening and prevention, Utah's quality monitoring system includes chronic care visits in addition to vaccinations, routine physical examinations, and cancer screening.

Washington reported that its system monitors behavioral health conditions, but not those queried by Pew and Vera (anxiety disorders, mood disorders, psychotic disorders, suicide and self-harm, and substance use disorder).

Wisconsin did not report which chronic conditions, if any, are monitored by its quality monitoring system.

Table C.14

Health Care Contract Requirements, FY 2016

State	Contract(s) include quality metric(s)	Contract(s) include financial incentive(s)	Contract(s) include financial penalty(ies)
Arizona	✓		✓
Arkansas	✓		✓
Colorado	✓		
Connecticut	✓		
Delaware			
Florida	✓		✓
Georgia	✓		
Idaho	✓	✓	✓
Illinois	✓		✓
Indiana	✓		✓
Kentucky	✓		✓
Louisiana			
Maine	✓		
Maryland	✓		✓
Massachusetts	✓		✓
Michigan	✓		✓
Minnesota	✓		✓
Mississippi	✓		✓
Missouri	✓		
Montana			
New Jersey			
New Mexico	✓		✓
Pennsylvania	✓	✓	✓
Rhode Island			
Tennessee	✓	✓	✓
Texas	✓		✓
Vermont	✓	✓	✓
Virginia	✓		✓
West Virginia	✓		✓
Wyoming	✓		✓

Notes: This table includes states with a prison health care system delivery model classified as contracted-provision, state university, or hybrid. Alabama and Kansas, each classified as having a contracted-provision delivery system, did not provide data on their health care contract requirements. Louisiana and Rhode Island did not indicate whether contracts include quality metrics.

Table C.15

Prison Health Care Continuity Service Targeting, FY 2016

Conditions targeted in states differentiating services by health status

		Infectious diseases			Chronic diseases						Behavioral health conditions						Geriatric conditions and services	
State	Targeting approach	HIV/AIDS	Hepatitis C	Tuberculosis	Asthma	COPD	Cardiovascular diseases	Diabetes	ESRD	Cancers	Anxiety disorders	Mood disorders	Personality disorders	Psychotic disorders	Suicide and self-harm risk	Substance use disorder	Dementias	Palliative care
Alaska	All services are targeted	✓		✓					✓	✓				✓	✓		✓	✓
Arizona	All services are targeted																	✓
Arkansas	Same baseline services, some targeted	✓	✓	✓				✓	✓									
California	Same baseline services, some targeted	✓														✓		
Colorado	Same baseline services, some targeted											✓	✓	✓		✓		
Connecticut	Same baseline services, some targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓		✓	✓
Delaware	All services are targeted	✓	✓	✓							✓	✓	✓	✓	✓	✓		✓
Florida	Same baseline services, some targeted	✓									✓	✓	✓	✓	✓			
Georgia	All services are targeted	✓	✓	✓	✓	✓	✓	✓	✓									✓
Hawaii	All services are targeted											✓		✓				
Illinois	Same baseline services, some targeted	✓		✓					✓					✓	✓	✓	✓	✓
Indiana	All services are targeted	✓		✓					✓	✓			✓	✓	✓	✓	✓	✓
Iowa	Same baseline services, some targeted	✓			✓	✓	✓	✓	✓		✓			✓	✓			
Kentucky	Same baseline services, some targeted											✓	✓	✓				

Continued on next page

		Infectious diseases			Chronic diseases						Behavioral health conditions						Geriatric conditions and services	
State	Targeting approach	HIV/AIDS	Hepatitis C	Tuberculosis	Asthma	COPD	Cardiovascular diseases	Diabetes	ESRD	Cancers	Anxiety disorders	Mood disorders	Personality disorders	Psychotic disorders	Suicide and self-harm risk	Substance use disorder	Dementias	Palliative care
Louisiana	Same baseline services, some targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Maryland	Same baseline services, some targeted	✓	✓	✓					✓	✓		✓		✓				✓
Massachusetts	All services are targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Michigan	All services are targeted																	
Minnesota	All services are targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mississippi	Same baseline services, some targeted	✓		✓					✓						✓			✓
Nebraska	Same baseline services, some targeted	✓	✓	✓				✓	✓		✓	✓	✓	✓		✓	✓	✓
Nevada	Same baseline services, some targeted	✓		✓					✓									
New Jersey	Same baseline services, some targeted	✓													✓	✓		✓
New York	Same baseline services, some targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
North Carolina	Same baseline services, some targeted	✓	✓						✓	✓	✓	✓	✓	✓	✓	✓		✓
North Dakota	Same baseline services, some targeted	✓		✓						✓								✓
Ohio	All services are targeted	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oklahoma	All services are targeted										✓	✓	✓	✓	✓	✓		
Oregon	Same baseline services, some targeted	✓		✓					✓	✓				✓	✓		✓	✓
Pennsylvania	Same baseline services, some targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓						✓	✓	✓

Continued on next page

		Infectious diseases			Chronic diseases						Behavioral health conditions						Geriatric conditions and services	
State	Targeting approach	HIV/AIDS	Hepatitis C	Tuberculosis	Asthma	COPD	Cardiovascular diseases	Diabetes	ESRD	Cancers	Anxiety disorders	Mood disorders	Personality disorders	Psychotic disorders	Suicide and self-harm risk	Substance use disorder	Dementias	Palliative care
Rhode Island	Same baseline services, some targeted	✓		✓				✓	✓	✓		✓		✓	✓	✓		✓
South Carolina	Same baseline services, some targeted	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
South Dakota	All services are targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓			
Tennessee	All services are targeted	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Texas	All services are targeted	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Utah	Same baseline services, some targeted	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Virginia	Same baseline services, some targeted	✓	✓	✓								✓		✓		✓		
Washington	Same baseline services, some targeted	✓	✓	✓					✓						✓	✓	✓	✓
Wisconsin	Same baseline services, some targeted	✓	✓									✓	✓	✓				
Wyoming	Same baseline services, some targeted	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Hawaii reported also providing care continuity services to individuals hospitalized at the time of release from prison.

Louisiana reported also providing care continuity services to individuals with "a significant disability," such as "hearing or visual impairment."

Though Michigan reported providing care continuity services only to individuals with certain conditions, the survey respondent did not indicate which conditions are targeted.

In Oregon, in addition to the conditions noted in the table, expanded care continuity services are offered to those with "severe medical condition[s]" and those requiring nursing home placements.

Wisconsin reported also providing care continuity services to individuals with "complex medical needs."

Table C.16

Prison Health Care Continuity Services, FY 2016

	AK	AR	AZ	CA	CO	CT	DE	FL	GA	HI	IA	ID	IL	IN	KY	LA	MA	MD	ME	MI	MN	MO	MS	MT	NC	ND	NE	NJ	NM	NV	NY	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VA	VT	WA	WI	WY
Coordination with community supervision	x	x	x		x	x		x						x		x		x	x	x	x	x		x	x	x	x	x		x	x		x		x		x	x	x		x		x		x
Copy of medical records typically received by individual				x										x	x					x	x	x	x	x	x			x			x		x											
Copy of medical records typically received by community provider						x						x			x	x				x		x												x					x		x				
Written prescriptions		x		x		o		x	x	x	o	o	o	x	o	x	x				x	o		o	o	o		x			x	x	x		x	o	x	x		x	x	x	o	x	o	
Bridge medication	x	x	x	x	o	o	x	x	x	x	x	o	o	x	o	o	x	o	o	x	x	o	o	o	o	o	o	x	o	o	o	x	x	o	o	o	o		x	x	x	o	o	o	o	o
Duration of typical bridge medication supply (days)	14-30	6-13	N/A	N/A	14-30	14-30	14-30	14-30	14-30	14-30	>30	14-30	14-30	>30	14-30	14-30	N/A	14-30	14-30	N/A	6-13	14-30	14-30	14-30	14-30	14-30	14-30	14-30	14-30	14-30	14-30	14-30	14-30	>30	14-30	6-13	1-5	0	≥14	6-13	14-30	14-30	14-30	14-30	14-30	14-30
Referrals to medical providers	x	x		x	o	x	x	x	x	x	x	o	x	x	x	o	x	x	o	x	x	o	x	o	o	x	x	x		x	x	x	x	x	o	x	x		x	x	o	o	x	x	o
Referrals to mental health treatment	x	x		x	x	x	x	x	x	x	x	o	x	x	x	o	x	x	o	x	x	o	o	o	o	x	x	x		x	o	x	x	x	o	o	o	x	x	x	o	o	x	x	o
Confirmed appointments with mental health treatment providers	x	x		x		x	x		x	x		o	x	x		x	x		o	x	x			o	o							x		x	x	x	x		x	x	x		x	x	
Referrals to substance use disorder treatment	x	x		x		x		x			x	o	x	x	x	x		x	o	x	x	o	o	o	o	x	x	x			o	x	x	x	o	x	o			x	x	x	o	x	x	x
Referrals to peer recovery programs for substance use disorder		x		x	x	x		x		x		o	x	x		o		x	o	x	x				o		x			x	x	x	x		o	x	x			x	x	o	o	x	x	o
Confirmed appointments with medical providers	x			x	x	x	x		x	x				x		x	x		o	x	x			o	o		x			x	x		x		o	x	x			x	x	o		x	x	o
Confirmed appointments with substance use treatment providers		x				x	x	x			x		x	x	x	x		x	o	x	x		x	o	o			x		x	x	x	x	x	x	x			x	x	x		x	x	x
Communication with provider prior to release	x					x		x		x			x			x		x			x	o		o	x	x				x	x		x	x		x	x			x	x	x				x
Patient education for disease prevention and management	x	o		x	x	x	x	x		x	x	o	x	x		o		o	o	x	x	o	o	o	o	o	o	x		x	o	x		x	x	x	x	x	x	x	o	o	x	o	o
Overdose education		o		x	x	x		x		x	x	o	x	x		x		x	o	x	x	o			o					x	x		x		x	x	x				x	x		x	x	o

O: Service provided to all individuals, as appropriate
X: Service provided only to individuals with certain conditions

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Notes: Survey respondents in California, Delaware, Iowa, Massachusetts, New Mexico, and Oregon reported not knowing whether prisons in their states coordinate with community supervision personnel to facilitate care continuity at release. In Wisconsin, the respondent did not indicate whether such coordination occurs.

In Connecticut, community providers reportedly receive partial health records at release. Florida and Nebraska did not report whether individuals and/or their community providers receive a copy of health records at release. In Maryland, although medical records are not provided to individuals or their community providers at the time of release, information on medication and chronic care needs are reportedly entered into the state's health information exchange. In Wisconsin, although medical records are not provided to individuals or their community providers at the time of release, individuals do receive a discharge summary.

Data reported on the typical duration of bridge medication provided reflects the duration states most commonly reported providing for the conditions and health needs queried by Pew and Vera. However, these durations frequently vary based on numerous factors. See Appendix B: State data notes for further information pertaining to bridge medication practices in Alaska, Arkansas, California, Georgia, Hawaii, Illinois, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, and Utah. Arizona, California, Massachusetts, and Michigan did not provide data on typical durations of bridge medication provided.

Besides the care continuity services queried by Pew and Vera, Virginia reported providing case management services to HIV-infected individuals.

Data for West Virginia are not included in this table because the state's survey respondent reported not knowing whether prison facilities in the state provide care continuity services.

Table C.17

Prison Health Care Continuity Services: Medicaid, FY 2016

	AK	AR	AZ	CA	CO	CT	DE	FL	GA	HI	IA	ID	IL	IN	KY	LA	MA	MD	ME	MI	MN	MO	MS	MT	NC	ND	NE	NJ	NM	NV	NY	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VA	VT	WA	WI	WV	WY
ACA expansion status	E	E	E	E	E	E	E	N	N	E	E	N	E	E	E	N	E	E	N	E	E	N	N	E	N	E	N	E	N	E	E	E	E	N	E	E	E	N	N	N	N	N	N	E	E	N	E	N
Coverage generally suspended or terminated during incarceration	S	T	S	S	T	S	T	S	S	T	T	T	T	S	S	S	S	T	S	T	T	T	T	S	S	T	S	S	S	T	S	S	T	S	T	S	T	S	T	S	T	T	S	T	T	S	T
Enrollment application assistance provided at re-entry		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Percentage of facilities providing application assistance		100	100	1 - 25	100	100	100		100		1 - 25	1 - 25	100	100	100	100	100	76 - 100	100	100	100	100	100	76 - 100	100	100	100	100	100	51 - 75	100	100		100	100	100	100		100	1 - 25	1 - 25	100	76 - 100	100	100	100	100
Inmates leave with Medicaid card					✓											✓	✓			✓	✓									✓		✓														✓	✓	
Presumptive eligibility used				✓		✓		✓	✓		✓		✓	✓								✓		✓	✓	✓			✓	✓			✓			✓						✓			✓			
Alternative documentation permitted			✓	✓	✓	✓						✓			✓				✓					✓	✓				✓		✓	✓		✓		✓	✓			✓	✓	✓		✓			
MCOs engage in discharge planning			✓													✓																✓					✓						✓					

E = Expanded N = Not expanded S = Suspended T = Terminated

Notes: Data on Medicaid expansion status are as of June 2016.

Survey respondents in Arkansas, California, Delaware, Georgia, Idaho, Illinois, Iowa, Montana, North Dakota, South Carolina, Tennessee, and Texas reported that departments of correction in these states do not track when Medicaid enrollment is generally completed.

Survey respondents in Arkansas, California, Colorado, Kentucky, Massachusetts, Minnesota, Missouri, Montana, North Carolina, North Dakota, Oregon, Rhode Island, and West Virginia reported that the corrections department was not aware of any requirements for Medicaid managed care plans to provide care continuity programs/services to inmates transitioning from prison to the community. Respondents from Florida, Nebraska, and Wisconsin provided no related information.

Source: Data on whether states adopted the Medicaid expansion under the Affordable Care Act are drawn from the Kaiser Family Foundation

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Table C.18

Prison Health Care Continuity Services: Medication-Assisted Treatment, FY 2016

			AK	AR	AZ	CA	CO	CT	DE	FL	GA	HI	IA	ID	IL	IN	KY	LA	MA	MD	ME	MI	MN	MO	MS	MT	NC	ND	NE	NJ	NM	NV	NY	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VA	VT	WA	WI	WY
Medication-assisted treatment for opioid use disorders	Buprenorphine	Referral						✓	✓									✓	✓											✓				✓			✓		✓									✓
		Prescription																																														
		Supply																												✓	✓											✓						
	Naltrexone	Referral						✓	✓							✓			✓					✓										✓			✓		✓			✓		✓			✓	✓
		Prescription														✓																												✓				
		Supply																													✓						✓										
		Injection					✓		✓							✓	✓		✓	✓				✓						✓								✓						✓			✓	
	Methadone	Referral		✓				✓	✓			✓				✓		✓	✓												✓				✓								✓					✓
Overdose prevention	Naloxone	Referral						✓	✓							✓																			✓							✓					✓
		Prescription							✓																																							
		Supply																		✓											✓									✓			✓					
	Overdose prevention education			✓		✓	✓	✓		✓		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓			✓					✓	✓		✓		✓	✓	✓			✓	✓		✓	✓	✓

Notes: Missouri provided no information regarding access to buprenorphine, methadone, or naloxone after release.

In Hawaii, individuals are reportedly referred to a methadone treatment provider only if they were prescribed methadone during their incarceration in order to continue treatment begun in the community.

Data for West Virginia are not included in this table because the state's survey respondent reported not knowing whether prison facilities in the state provide care continuity services.

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Table C.19

Prison Health Care Continuity Services: Electronic Health Records, FY 2016

State	Majority of prison facilities use electronic health records	Electronic health record is interoperable across facilities	Electronic health record is interoperable between facilities and community providers
Alaska			
Arizona	✓	✓	
Arkansas	✓	✓	
California			
Colorado	✓	✓	
Connecticut			
Delaware	✓	✓	
Florida			
Georgia			
Hawaii	✓	✓	
Idaho			
Illinois			
Indiana	✓	✓	✓
Iowa	✓	✓	✓
Kentucky	✓	✓	
Louisiana			
Maine	✓	✓	
Maryland			
Massachusetts			
Michigan	✓	✓	
Minnesota			
Mississippi	✓	✓	
Missouri	✓	✓	
Montana			
Nebraska			
Nevada			
New Jersey	✓	✓	✓
New Mexico			
New York	✓	✓	
North Carolina	✓	✓	
North Dakota	✓	✓	
Ohio	✓	✓	
Oklahoma	✓	✓	

Continued on next page

State	Majority of prison facilities use electronic health records	Electronic health record is interoperable across facilities	Electronic health record is interoperable between facilities and community providers
Oregon			
Pennsylvania			
Rhode Island	✓	✓	
South Carolina			
South Dakota	✓	✓	
Tennessee			
Texas	✓	✓	
Utah	✓	✓	
Vermont	✓	✓	✓
Virginia			
Washington			
West Virginia			
Wisconsin			
Wyoming	✓	✓	

Note: A state's electronic health record was designated as interoperable with community providers if any outside providers were able to exchange and use electronic health information from a majority of prisons without special effort by the community provider or prisons.

Endnotes

1 Jeremy Travis, Bruce Western, and Steve Redburn, eds., *The Growth of Incarceration in the United States: Exploring Causes and Consequences* (Washington, DC: National Academies Press, 2014), 205-6.

2 The Pew Charitable Trusts, "One in 100: Behind Bars in America 2008" (2008), http://www.pewtrusts.org/~/media/legacy/uploadedfiles/wwwpewtrustsorg/reports/sentencing_and_corrections/onein100pdf.pdf.

3 Jeremy Travis, "But They All Come Back: Rethinking Prisoner Reentry," *Sentencing & Corrections,* National Institute of Justice (May 2000), https://www.ncjrs.gov/pdffiles1/nij/181413.pdf; "Reentry Trends in the United States," Bureau of Justice Statistics, last modified Aug. 24, 2017, http://www.bjs.gov/content/reentry/reentry.cfm.

4 In fiscal 2012, the most recent year for which data were available, total state prison expenditures were $38.6 billion. States' prison health care spending—$7.6 billion—represented 20 percent of this total. Prison health care probably represented a similar percentage in fiscal 2015. Tracey Kyckelhahn, "Justice Expenditure and Employment Extracts, 2012—Preliminary," Bureau of Justice Statistics, February 2015, https://www.bjs.gov/index.cfm?ty=pbdetail&iid=5239.

5 Douglas C. McDonald, "Medical Care in Prisons," *Crime and Justice* 26 (1999): 451-54, http://www.journals.uchicago.edu/doi/abs/10.1086/449301.

6 The Pew Charitable Trusts, "State Prison Health Care Spending," July 2014, http://www.pewtrusts.org/~/media/assets/2014/07/stateprisonhealthcarespendingreport.pdf; The Pew Charitable Trusts, "Managing Prison Health Care Spending," October 2013, http://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2014/pctcorrectionshealthcarebrief050814pdf.pdf.

7 The Pew Charitable Trusts, "State Prison Health Care Spending"; The Pew Charitable Trusts, "Managing Prison Health Care Spending."

8 Estelle v. Gamble, 429 U.S. 97 (1976), https://www.law.cornell.edu/supremecourt/text/429/97.

9 McDonald, "Medical Care in Prisons," 431; Newman et al. v. Alabama et al., 349 F. Supp. 278 (M.D. Ala. 1972), http://law.justia.com/cases/federal/district-courts/FSupp/349/278/1501874/; University of Pennsylvania Health Law Project, *Health Care and Conditions in Pennsylvania's State Prisons:* A Report (1972), 8, 119.

10 McDonald, "Medical Care in Prisons," 437.

11 Ibid.; Daniel E. Manville, "Federal Legal Standards for Prison Medical Care," *Prison Legal News,* May 15, 2003, 1, https://www.prisonlegalnews.org/news/2003/may/15/federal-legal-standards-for-prison-medical-care.

12 McDonald, "Medical Care in Prisons"; Manville, "Federal Legal Standards."

13 McDonald, "Medical Care in Prisons"; Manville, "Federal Legal Standards."

14 Robert B. Greifinger, "Thirty Years Since Estelle v Gamble: Looking Forward, Not Wayward," in *Public Health Behind Bars: From Prisons to Communities,* ed. Robert B. Greifinger et al. (New York: Springer, 2007), 2.

15 Manville, "Federal Legal Standards," 1.

16 West v. Atkins, 487 U.S. 42 (1988).

17 Amy Fettig, deputy director of the American Civil Liberties Union's National Prison Project, interview with The Pew Charitable Trusts, Feb. 23, 2017.

18 Marciano Plata et al. v. Arnold Schwarzenegger et al., Findings of Fact and Conclusions of Law Re Appointment of Receiver, No. C01-1351 TEH (N.D. Calif. 2005); Brown et al. v. Plata et al., 563 U. S. 493 (2011).

19 American Civil Liberties Union, "Court Approves Major Settlement Improving Health Care in Arizona Prisons" (Feb. 18, 2015), https://www.aclu.org/news/court-approves-major-settlement-improving-health-care-arizona-prisons; Joe Watson and Derek Gilna, "Civil Rights Advocates Laud Healthcare Settlement with Arizona Prison System" *Prison Legal News,* Feb. 2, 2016, 56, https://www.prisonlegalnews.org/news/2016/feb/2/civil-rights-advocates-laud-healthcare-settlement-arizona-prison-system.

20 "About Us," Association of State and Territorial Health Officials, accessed Feb. 1, 2017, http://www.astho.org/About/.

21 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), https://www.bjs.gov/content/pub/pdf/mpsfpji1112.pdf.

22 Centers for Disease Control and Prevention, "STDs in Persons Entering Corrections Facilities" (December 2012), http://www.cdc.gov/std/stats11/corrections.htm; Theodore M. Hammett, "HIV/AIDS and Other Infectious Diseases Among Correctional Inmates: Transmission, Burden, and an Appropriate Response," *American Journal of Public Health* 96, no. 6 (2006): 974–78, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470637; Maria R. Khan et al., "Incarceration, Sex with an STI- or HIV-Infected Partner, and Infection with an STI or HIV in Bushwick, Brooklyn, NY: A Social Network Perspective," *American Journal of Public Health* 101, no. 6 (2011): 1110–17, http://www.ncbi.nlm.nih.gov/pubmed/21233443.

23 Laura M. Maruschak, "HIV in Prisons, 2001-2010," Bureau of Justice Statistics (September 2012), https://www.bjs.gov/content/pub/pdf/hivp10.pdf;

24 Anne C. Spaulding et al., "Impact of New Therapeutics for Hepatitis C Virus Infection in Incarcerated Populations," *Topics in Antiviral Medicine* 21, no. 1 (2013): 27–35, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3875217.

25 "Public Safety is Public Health; Public Health is Public Safety," U.S. Department of Health and Human Services, last modified Jan. 9, 2007, https://www.surgeongeneral.gov/news/speeches/correctional10062003.html.

26 World Health Organization, "Health in Prisons: A WHO Guide to the Essentials in Prison Health" (2007), http://www.euro.who.int/__data/assets/pdf_file/0009/99018/E90174.pdf.

27 "TB in Correctional Facilities in the United States," Centers for Disease Control and Prevention, last modified Nov. 30, 2015, https://www.cdc.gov/tb/topic/populations/correctional/default.htm.

28 "Prevention and Control of Tuberculosis in Correctional and Detention Facilities: Recommendations from CDC," Centers for Disease Control and Prevention, last modified June 22, 2006, https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5509a1.htm.

29 "Epidemiology of Tuberculosis in Correctional Facilities, United States, 1993-2014," Centers for Disease Control and Prevention, last modified Dec. 9, 2011, https://www.cdc.gov/tb/publications/slidesets/correctionalfacilities/default.htm.

30 "TB Incidence in the United States, 1953-2015," Centers for Disease Control and Prevention, last modified Dec. 26, 2016, https://www.cdc.gov/tb/statistics/tbcases.htm.

31 Ohio Department of Rehabilitation & Correction, "Family Support," accessed on March 4, 2017, http://www.drc.ohio.gov/.

32 "Vision, Mission, Values and Goals," Minnesota Department of Corrections, accessed on Aug. 24, 2017, https://mn.gov/doc/about/agency-background-history/vision-mission-values/.

33 "Mission, Vision, and Core Values," Georgia Department of Corrections, accessed on March 4, 2017, http://www.dcor.state.ga.us/AboutGDC/Mission.

34 Allen J. Beck and Bernard E. Shipley, "Recidivism of Prisoners Released in 1983," Bureau of Justice Statistics (April 1989), https://www.bjs.gov/content/pub/pdf/rpr83.pdf; Patrick A. Langan and David J. Levin, "Recidivism of Prisoners Released in 1994," Bureau of Justice Statistics (June 2002), https://www.bjs.gov/content/pub/pdf/rpr94.pdf.

35 Matthew R. Durose, Alexia D. Cooper, and Howard N. Snyder, "Recidivism of Prisoners Released in 30 States in 2005: Patterns from 2005 to 2010," Bureau of Justice Statistics (April 2014), https://www.bjs.gov/content/pub/pdf/rprts05p0510.pdf.

36 The Pew Charitable Trusts, "State of Recidivism: The Revolving Door of America's Prisons" (April 2011), http://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2011/pewstateofrecidivismpdf.pdf.

37 Washington State Institute for Public Policy, "Risk Need and Responsivity Supervision (for Individuals Classified as High- and Moderate-Risk)" (May 2017), http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/157/Risk-Need-Responsivity-supervision-for-high-and-moderate-risk-offenders; Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 196; Craig Dowden and Shelley L. Brown, "The Role of Substance Abuse Factors in Predicting Recidivism: A Meta-Analysis," *Psychology Crime and Law* 8, no. 3 (September 2002): 243-264.

38 Doris J. James and Lauren E. Glaze, "Mental Health Problems of Prison and Jail Inmates," Bureau of Justice Statistics (December 2006), 7, https://www.bjs.gov/content/pub/pdf/mhppji.pdf; Jacques Baillargeon et al., "Psychiatric Disorders and Repeat Incarcerations: The Revolving Prison Door," *American Journal of Psychiatry* 166, no. 1 (January 2009): 103-9, http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2008.08030416; James A. Wilson and Peter B. Wood, "Dissecting the Relationship Between Mental Illness and Return to Incarceration," *Journal of Criminal Justice* 42, no. 6 (November-December 2014): 527-537, http://www.sciencedirect.com/science/article/pii/S0047235214000828; Seena Fazel et al., "Schizophrenia and Violence: Systematic Review and Meta-Analysis," PLoS Medicine 6, no. 8 (August 2009), http://doi.org/10.1371/journal.pmed.1000120; Amy Blank Wilson et al., "Examining the Impact of Mental Illness and Substance Use on Recidivism in a County Jail," *International Journal of Law and Psychiatry* 34, no. 4 (July–August 2011), 264-268, http://dx.doi.org/10.1016/j.ijlp.2011.07.004.

39 Travis, Western, and Redburn, *Growth of Incarceration,* 197; Martin Killias et al., "Effects of Drug Substitution Programs on Offending Among Drug Addicts," *Campbell Systematic Reviews* 5, no. 3 (2009), https://www.campbellcollaboration.org/library/drug-substitution-programmes-offending-drug-addicts.html; Ojmarrh Mitchell, Doris MacKenzie, and David Wilson, "The Effectiveness of Incarceration-Based Drug Treatment on Criminal Behavior: A Systematic Review," *Campbell Systematic Reviews 8,* no. 18 (2012), https://www.campbellcollaboration.org/library/effectiveness-of-incarceration-based-drug-treatment.html; Mark W. Lipsey, Nana A. Landenberger, and Sandra J. Wilson, "Effects of Cognitive-Behavioral Programs for Criminal Offenders," Center for Evaluation Research and Methodology (August 2007), https://www.researchgate.net/publication/252778703_Effects_of_Cognitive-Behavioral_Programs_for_Criminal_Offenders; Nana A. Landenberger and Mark W. Lipsey, "The Positive Effects of Cognitive-Behavioral Programs for Offenders: A meta-analysis of factors associated with effective treatment," *Journal of Experimental Criminology* 1, no. 4 (2005): 451–476, https://link.springer.com/article/10.1007/s11292-005-3541-7; Steve Aos, Marna Miller, and Elizabeth Drake, "Evidence-Based Adult Corrections Programs: What Works and What Does Not," Washington State Institute for Public Policy (2006), http://www.wsipp.wa.gov/ReportFile/924.

40 Christopher J. Mumola and Jennifer C. Karberg, "Drug Use and Dependence, State and Federal Prisoners, 2004," Bureau of Justice Statistics (January 2007), https://www.bjs.gov/content/pub/pdf/dudsfp04.pdf; James and Glaze, "Mental Health Problems of Prison and Jail Inmates."

41 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 197; Killias et al., "Effects of Drug Substitution Programs on Offending Among Drug Addicts"; Mitchell, MacKenzie, and Wilson, "The Effectiveness of Incarceration-Based Drug Treatment on Criminal Behavior: A Systematic Review."

42 Ojmarrh Mitchell, Doris MacKenzie, and David Wilson, "The Effectiveness of Incarceration-Based Drug Treatment on Criminal Behavior: A Systematic Review."

43 The Pew Charitable Trusts, "State of Recidivism."

44 "Fiscal 50: State Trends and Analysis," The Pew Charitable Trusts, last modified Aug. 4, 2017, http://www.pewtrusts.org/en/research-and-analysis/collections/2014/05/19/fiscal-50-state-trends-and-analysis.

45 McDonald, "Medical Care in Prisons," 430.

46 Where possible, per-inmate health care spending reflects health care provided to individuals under the jurisdiction of state corrections departments. However, there are several states where amounts do not include certain individuals held in private prisons or local jails. For the purposes of comparability, individuals outside of state custody were removed from the calculation in cases where states did not report associated spending. (See Appendix A: Methodology and Appendix B: State data notes.)

47 James J. Stephan, "State Prison Expenditures, 1996," Bureau of Justice Statistics (August 1999), https://www.bjs.gov/content/pub/pdf/spe96.pdf; James J. Stephan, "State Prison Expenditures, 2001," Bureau of Justice Statistics (June 2004), https://www.bjs.gov/content/pub/pdf/spe01.pdf.

48 To analyze changes in state prison health care spending over time, data for fiscal 2010 to 2014 were converted to 2015 dollars using the Implicit Price Deflator for Gross Domestic Product included in the Bureau of Economic Analysis' National Income and Product Accounts.

49 The Pew Charitable Trusts, "Managing Prison Health Care Spending," 5; The Pew Charitable Trusts, "State Prison Health Care Spending," 5.

50 Louisiana experienced the largest increase (56 percent), but that change reflected a budgeting adjustment that shifted certain health care costs from Louisiana State University to the corrections department and was not necessarily the result of actual changes in state prison health care spending. See Appendix B: State data notes.

51 Stephan, "State Prison Expenditures, 1996," 7; Stephan, "State Prison Expenditures, 2001," 6.

52 Deborah Lamb-Mechanick and Julianne Nelson, "Prison Health Care Survey: An Analysis of Factors Influencing Per Capita Costs," National Institute of Corrections (2000), https://s3.amazonaws.com/static.nicic.gov/Library/015999.pdf.

53 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 215.

54 United Nations, "Human Rights and Prisons: Manual on Human Rights Training for Prison Officials," Office of the United Nations High Commissioner for Human Rights (2005), http://www.ohchr.org/Documents/Publications/training11en.pdf.

55 World Health Organization, "Health in Prisons."

56 "Correctional Health Care Standards and Accreditation," American Public Health Association, accessed Feb. 6, 2017, https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/02/12/07/correctional-health-care-standards-and-accreditation.

57 McDonald, "Medical Care in Prisons," 438.

58 American Bar Association, *ABA Standards for Criminal Justice: Treatment of Prisoners,* 3rd ed. (Washington, DC: American Bar Association, 2011).

59 "Standards," American Correctional Association, accessed Feb. 6, 2017, http://www.aca.org/ACA_Prod_IMIS/ACA_Member/Standards_and_Accreditation/StandardsInfo_Home.aspx?WebsiteKey=139f6b09-e150-4c56-9c66-284b92f21e51&hkey=7c1b31e5-95cf-4bde-b400-8b5bb32a2bad&New_ContentCollectionOrganizerCommon=1#New_ContentCollectionOrganizerCommon.

60 "Standards: A Framework for Quality," National Commission on Correctional Health Care, accessed Feb. 6, 2017, http://www.ncchc.org/standards.

61 Cheryl L. Damberg et al., "A Review of Quality Measures Used by State and Federal Prisons," *Journal of Correctional Health Care* 17, no. 2 (2011): 123, doi: 10.1177/1078345810397605.

62 McDonald, "Medical Care in Prisons," 452.

63 Douglas C. McDonald, "Managing Prison Health Care and Costs," National Institute of Justice (May 1995), 62, https://www.ncjrs.gov/pdffiles1/Digitization/152768NCJRS.pdf.

64 Ibid.

65 Ibid.

66 Rodney Ballard (former commissioner, Kentucky Department of Corrections), interview with The Pew Charitable Trusts, June 30, 2017.

67 McDonald, "Managing Prison Health Care and Costs," 65.

68 Ibid., 64.

69 State of Michigan, "Contract NO. 071B9200147 between State of Michigan and Corizon," http://www.michigan.gov/documents/buymichiganfirst/9200147_266870_7.pdf; Terese London (financial specialist, budget and operations administration, Michigan Department of Corrections), interview with The Pew Charitable Trusts, March 1, 2017.

70 McDonald, "Managing Prison Health Care and Costs," 68.

71 Jason Furman and Matt Fiedler, "Continuing the Affordable Care Act's Progress on Delivery System Reform Is an Economic Imperative" (blog), White House, March 24, 2015, https://obamawhitehouse.archives.gov/blog/2015/03/24/continuing-affordable-care-act-s-progress-delivery-system-reform-economic-imperative.

72 McDonald, "Medical Care in Prisons," 471; Lamb-Mechanick and Nelson, "Prison Health Care Survey," 24; Kelly Bedard and H.E. Frech III, "Prison Health Care: Is Contracting Out Healthy?" (prepublication text, July 2008), 8-12, http://econ.ucsb.edu/~kelly/prison_health.pdf.

73 McDonald, "Managing Prison Health Care and Costs," 79.

74 Andrew Howland (chief budget analyst, New York State Department of Corrections and Community Supervision), interview with The Pew Charitable Trusts, Feb. 3, 2017.

75 Kathleen Heath (financial analyst, Maine Department of Corrections), interview with The Pew Charitable Trusts, Feb. 9, 2017.

76 Ibid.

77 McDonald, "Managing Prison Health Care and Costs," 80.

78 Jeremy Cunningham, Maureen Tressel Lewis, and Paul R. Houchens, "Encounter Data Standards: Implications for Medicaid Agencies and Managed Care Entities from Final Medicaid Managed Care Rule," Milliman Inc. (May 2016), http://us.milliman.com/uploadedFiles/insight/2016/2238HDP_20160524.pdf.

79 Vivian L. H. Byrd and James Verdier, "Collecting, Using, and Reporting Medicaid Encounter Data: A Primer for States," Mathematica Policy Research (October 2011), 4, https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/Downloads/MAX_PDQ_Task_X_EncounterDataPrimerforStates.pdf.

80 Stephan, "State Prison Expenditures, 1996," 5; Stephan, "State Prison Expenditures, 2001," 4.

81 Stephan, "State Prison Expenditures, 1996," 12; Stephan, "State Prison Expenditures, 2001," 5.

82 Stephan, "State Prison Expenditures, 1996," 7; Stephan, "State Prison Expenditures, 2001," 6.

83 Lamb-Mechanick and Nelson, "Prison Health Care Survey," 21.

84 Centers for Medicare & Medicaid Services, "National Health Expenditures 2015 Highlights," https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/highlights.pdf.

85 Oklahoma's ratio of FTEs per 1,000 inmates excludes staff of the University of Oklahoma who provide remote telemedicine services. Some states included such providers in their totals. (See Appendix B: State data notes.)

86 States differed slightly in how they reported staffing data. Most states reported either a one-day snapshot or average daily FTE totals, with a small minority basing some or all of their staffing figures on the number budgeted for in contracts. Most states provided data for fiscal 2015, but 13 provided them for fiscal 2016. Six states (Florida, Iowa, Rhode Island, Utah, Virginia, and Wisconsin) were excluded from this analysis because they submitted staffing data that were incomplete or not comparable. (See Appendix B: State data notes.)

87 Six states (Florida, Iowa, Rhode Island, Utah, Virginia, and Wisconsin) were excluded from the staffing analysis because they submitted staffing data that were incomplete or not comparable. An additional six states (Alabama, Arkansas, Louisiana, Nebraska, South Dakota, and West Virginia) were removed from the compositional analysis because they provided incomplete or no data by staff position. (See Appendix B: State data notes.)

88 This analysis compares the number of health professional FTEs per 1,000 inmates under the **custody** of the corrections department to spending per inmate under the **jurisdiction** of the corrections department. In most states, the vast majority of inmates under their jurisdiction are also under their custody. In states that make greater use of local jails or private prisons, where inmates are not under the custody of the state, it is possible that per-inmate health care figures would differ if calculated based solely on spending in state-run facilities for inmates under state custody. (See Appendix B: State data notes.)

89 Patricia Blair et al., "Nurses' Scope of Practice and Delegation Authority," National Commission on Correctional Health Care (July 2014), http://www.ncchc.org/filebin/Resources/Nurses-Scope-2014.pdf.

90 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 216.

91 McDonald, "Medical Care in Prisons," 443-444.

92 Diana Farrell et al., "Accounting for the Cost of US Health Care: A New Look at Why Americans Spend More," McKinsey Global Institute (December 2008), 14-18, http://healthcare.mckinsey.com/sites/default/files/MGI_Accounting_for_cost_of_US_health_care_full_report.pdf.

93 Centers for Medicare & Medicaid Services, "Ending Chronic Homelessness" (May 25, 2004), https://www.medicaid.gov/medicaid/ltss/downloads/community-living/ending-chronic-homelessness-smd-letter.pdf.

94 "Federal Poverty Level (FPL)," U.S. Centers for Medicare & Medicaid Services, accessed Aug. 24, 2017, https://www.healthcare.gov/glossary/federal-poverty-level-FPL; "U.S. Federal Poverty Guidelines Used to Determine Financial Eligibility for Certain Federal Programs," U.S. Department of Health and Human Services, accessed Feb. 15, 2017, https://aspe.hhs.gov/poverty-guidelines.

95 "Status of State Action on the Medicaid Expansion Decision," Kaiser Family Foundation, last modified Jan. 1, 2017, http://kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/?currentTimeframe=0.

96 The Pew Charitable Trusts, "How and When Medicaid Covers People Under Correctional Supervision" (August 2016), http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2016/08/how-and-when-medicaid-covers-people-under-correctional-supervision.

97 The Ohio Department of Rehabilitation and Correction, "2014 Annual Report" (2014), 23-24, http://www.drc.ohio.gov/Portals/0/Reentry/Reports/Annuals/Annual%20Report%202014.pdf?ver=2016-08-03-152618-967.

98 Stuart Hudson (managing director of health care and fiscal operations, Ohio Department of Rehabilitation and Correction), interview with The Pew Charitable Trusts, September 30, 2016.

99 The Pew Charitable Trusts, "How and When Medicaid Covers People."

100 Institute of Medicine, *Variation in Health Care Spending: Target Decision Making, Not Geography* (Washington, DC: National Academies Press, 2013), 53.

101 McDonald, "Managing Prison Health Care and Costs," 23.

102 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 211.

103 "Chronic Disease Overview," Centers for Disease Control and Prevention (CDC), last modified June 28, 2017, https://www.cdc.gov/chronicdisease/overview/.

104 Jessie Gerteis et al., "Multiple Chronic Conditions Chartbook: 2010 Medical Expenditure Panel Survey Data," Agency for Healthcare Research and Quality (April 2014), 7-13 https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/prevention-chronic-care/decision/mcc/mccchartbook.pdf.

105 Maruschak, Berzofsky, and Unangst, "Medical Problems," 2.

106 Chronic Disease Overview," Centers for Disease Control and Prevention (CDC).

107 Allen J. Beck, "Prisoners in 1999," Table 13. Number of Sentenced Prisoners Under State or Federal Jurisdiction, by Gender, Race, Hispanic Origin, and Age, 1999, Bureau of Justice Statistics, https://www.bjs.gov/content/pub/pdf/p99.pdf; "Corrections Statistical Analysis Tool (CSAT) – Prisoners," Estimated Number of Sentenced Prisoners Under State and Federal Jurisdiction, by Age, Sex, Race, and Hispanic Origin, December 31, Bureau of Justice Statistics, accessed on May 8, 2017, https://www.bjs.gov/index.cfm?ty=nps.

108 Beck, "Prisoners in 1999"; E. Ann Carson and Elizabeth Anderson, "Prisoners in 2015," Bureau of Justice Statistics (December 2016), https://www.bjs.gov/content/pub/pdf/p15.pdf.

109 Age-distribution data reflect proportions of the average daily population under the jurisdiction of the state corrections department, including individuals held in private prisons or local jails. Five states (Alabama, Iowa, Michigan, South Dakota, and Tennessee) either did not track inmates by the age brackets surveyed or did not report data to Pew and Vera for fiscal 2010 and 2015. Fiscal 2010 data for Kansas were reported for a prior survey by Pew and Vera. New Hampshire provided no data at all. (See Appendix B: State data notes.)

110 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 210-212.

111 Tina Chiu, "It's About Time: Aging Prisoners, Increasing Costs, and Geriatric Release," Vera Institute of Justice (April 2010), https://storage.googleapis.com/vera-web-assets/downloads/Publications/its-about-time-aging-prisoners-increasing-costs-and-geriatric-release/legacy_downloads/Its-about-time-aging-prisoners-increasing-costs-and-geriatric-release.pdf.

112 B. Jaye Anno et al., "Correctional Health Care: Addressing the Needs of Elderly, Chronically Ill, and Terminally Ill Inmates, National Institute of Corrections" (February 2004), https://s3.amazonaws.com/static.nicic.gov/Library/018735.pdf.

113 Cyrus Ahalt et al., "Paying the Price: The Pressing Need for Quality, Cost, and Outcomes Data to Improve Correctional Healthcare for Older Prisoners," *Journal of the American Geriatrics Society* 61, no. 11 (2013): 2013–19, doi:10.1111/jgs.12510.

114 Office of the Inspector General, "The Impact of an Aging Inmate Population on the Federal Bureau of Prisons," U.S. Department of Justice (February 2016), https://oig.justice.gov/reports/2015/e1505.pdf.

115 E. Ann Carson and William J. Sabol, "Aging of the State Prison Population, 1993–2013," Bureau of Justice Statistics, (May 2016), https://www.bjs.gov/content/pub/pdf/aspp9313.pdf.

116 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 212.

117 Carson and Anderson, "Prisoners in 2015," table 2.

118 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 215.

119 Damberg et al., "A Review of Quality Measures," 123.

120 Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington, DC: National Academy Press, 2001), 23-25.

121 Steven M. Asch et al., "Selecting Performance Indicators for Prison Health Care," *Journal of Correctional Health Care* 17, no. 2 (2011): 139, doi: 10.1177/1078345810397712.

122 Institute of Medicine, *Crossing the Quality Chasm,* 232.

123 Ibid., xi.

124 "The Six Domains of Health Care Quality," Agency for Healthcare Research and Quality, last reviewed March 2016, https://www.ahrq.gov/professionals/quality-patient-safety/talkingquality/create/sixdomains.html.

125 Avedis Donabedian, "Evaluating the Quality of Medical Care," *Milbank Quarterly* 83, no. 4 (December 2005):166-206, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690293.

126 Stephanie S. Teleki et al., "The Current State of Quality of Care Measurement in the California Department of Corrections and Rehabilitation," *Journal of Correctional Health Care* 17, no. 2 (2011): 103, doi: 10.1177/1078345810397498.

127 Institute of Medicine, *Crossing the Quality Chasm,* 232.

128 "State Quality Strategies," Centers for Medicare & Medicaid Services, accessed on March 2, 2017, https://www.medicaid.gov/medicaid/quality-of-care/medicaid-managed-care/state-quality-strategy/index.html.

129 Aaron McKethan, Terry Savela, and Wesley Joines, "What Public Employee Health Plans Can Do to Improve Health Care Quality: Examples from the States," Lewin Group (January 2008), http://www.commonwealthfund.org/usr_doc/McKethan_whatpublicemployeehltplanscando_1097.pdf.

130 Damberg et al., "A Review of Quality Measures," 122-137.

131 McDonald, "Managing Prison Health Care and Costs," 65, 82.

132 "Health Care Services Dashboard," California Correctional Health Care Services, accessed on March 22, 2017, http://www.cphcs.ca.gov/dashboard.aspx.

133 Renee Kanan (chief quality officer, California Correctional Health Care Services), interview with The Pew Charitable Trusts, Oct. 25, 2016.

134 Mary Dixon-Woods, Sarah McNicol, and Graham Martin, "Ten Challenges in Improving Quality in Healthcare: Lessons from the Health Foundation's Programme Evaluations and Relevant Literature," *BMJ Quality and Safety* 21, no. 10 (2012): 876-884, http://qualitysafety.bmj.com/content/21/10/876.info.

135 Terese London (financial specialist, Michigan Department of Corrections), interview with The Pew Charitable Trusts, Nov. 15, 2016.

136 "Correctional Managed Health Care Committee (CMHCC)," Texas Department of Criminal Justice, accessed on March 2, 2017, http://tdcj.state.tx.us/divisions/cmhc/index.html.

137 Texas Statute § 501.150, http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.501.htm.

138 Texas Statute § 501.147, http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.501.htm; "About Legislative Budget Board," Legislative Budget Board, accessed March 2, 2017, http://www.lbb.state.tx.us/About_LBB.aspx.

139 Texas Statute § 501.155, http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.501.htm.

140 Administrative Regulation AR 601 as of Oct. 20, 2014, "Medical Quality Management Program," http://doc.nv.gov/uploadedFiles/docnvgov/content/About/Administrative_Regulations/AR%20601%20-%20No%20Changes.pdf.

141 "About CAHPS," Agency for Healthcare Research and Quality, last modified October 2016, https://www.ahrq.gov/cahps/about-cahps/index.html.

142 Damberg et al., "A Review of Quality Measures," 132-133.

143 Sandra Tanguay, Robert Trestman, and Connie Weiskopf, "Patient Health Satisfaction Survey in Connecticut Correctional Facilities," *Journal of Correctional Health Care* 20, no. 2 (2014):127-134; Jeff Dickert (former chief operating officer, University Correctional Health Care, Rutgers), interview with The Pew Charitable Trusts, Oct. 14, 2016; Jeff Dickert, Lisa DeBilio, and Marci Masker, "Why We Should Measure Patient Satisfaction in Correctional Healthcare." (presentation, Academic and Health Policy Conference on Correctional Health, 2011), http://www.correctionalhealthconference.com/sites/correctionalhealthconference.com/files/Why%20We%20Should%20Measure%20Patient%20Satisfaction_DeBilio%20(2).pdf.

144 Margaret E. Noonan, "Mortality in State Prisons, 2001-2014 — Statistical Tables," Bureau of Justice Statistics (2016), https://www.bjs.gov/content/pub/pdf/msp0114st.pdf.

145 Damberg et al., "A Review of Quality Measures," 133.

146 Steven Shelton (former chief medical officer, Oregon Department of Corrections), interview with The Pew Charitable Trusts, July 5, 2017.

147 Timothy Hughes and Doris James Wilson, "Reentry Trends in the United States," Bureau of Justice Statistics (April 2004), https://www.bjs.gov/content/pub/pdf/reentry.pdf.

148 Carson and Anderson, "Prisoners in 2015," table 2; E. Ann Carson, "Prisoners in 2014," Bureau of Justice Statistics (September 2015), Table 7, https://www.bjs.gov/content/pub/pdf/p14.pdf.

149 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): 157-165; 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): 479-487.

150 Binswanger et al., "Release from Prison"; Spaulding et al., "Prisoner Survival."

151 Travis, Western, and Redburn, *The Growth of Incarceration in the United States: Exploring Causes and Consequences,* 227.

152 Emily A. Wang, Yongfei Wang, and Harlan M. Krumholz, "A High Risk of Hospitalization Following Release from Correctional Facilities in Medicare Beneficiaries: A Retrospective Matched Cohort Study, 2002 to 2010," *JAMA Internal Medicine* 173, no. 17 (2013): 1621-1628; Joseph W. Frank et al., "Increased Hospital and Emergency Department Utilization by Individuals with Recent Criminal Justice Involvement: Results of a National Survey," *Journal of General Internal Medicine* 29 (2014): 1226, doi:10.1007/s11606-014-2877-y.

153 Kamala Mallik-Kane and Christy A. Visher, "Health and Prisoner Re-Entry: How Physical, Mental, and Substance Abuse Conditions Shape the Process of Reintegration," Urban Institute Justice Policy Center (February 2008), https://www.urban.org/sites/default/files/publication/31491/411617-Health-and-Prisoner-Reentry.PDF.

154 Jeannia J. Fu et al., "Understanding the Revolving Door: Individual and Structural-Level Predictors of Recidivism Among Individuals with HIV Leaving Jail," *AIDS and Behavior* 17 no. 2 (2013): S145–S155, http://doi.org/10.1007/s10461-013-0590-1; Nicholas Freudenberg et al., "Coming Home from Jail: The Social and Health Consequences of Community Reentry for Women, Male Adolescents, and Their Families and Communities," *American Journal of Public Health* 98 no. 1 (2008): 191-202; Joseph P. Morrissey et al., "The Role of Medicaid Enrollment and Outpatient Service Use in Jail Recidivism Among Persons with Severe Mental Illness," *Psychiatric Services* 58, no. 6 (2007): 794-801, http://dx.doi.org/10.1176/ps.2007.58.6.794.

155 James A. Inciardi et al., "An Effective Model of Prison-Based Treatment for Drug-Involved Offenders," *Journal of Drug Issues* 27, no. 2 (1997): 261-278; Gregory Theurer and David Lovell, "Recidivism of Offenders with Mental Illness Released from Prison to an Intensive Community Treatment Program," *Journal of Offender Rehabilitation* 47, no. 4 (2008): 385-406; David Lovell, Gregg J. Gagliardi, and Polly Phipps, "Washington's Dangerous Mentally Ill Offender Law: Was Community Safety Increased?," Washington State Institute for Public Policy (March 2005), http://www.wsipp.wa.gov/ReportFile/900/Wsipp_Washington-s-Dangerous-Mentally-Ill-Offender-Law-Was-Community-Safety-Increased_Full-Report.pdf; Stanley Sacks et al., "Randomized Trial of a Reentry Modified Therapeutic Community for Offenders with Co-Occurring Disorders: Crime Outcomes," *Journal of Substance Abuse Treatment* 42, no. 3 (2012): 247–259.

156 Emily A. Wang et al., "Engaging Individuals Recently Released from Prison Into Primary Care: A Randomized Trial," *American Journal of Public Health* 102, no. 9 (2012): 22-29.

157 Lori Whitten, "HIV Treatment Interruption Is Pervasive After Release From Texas Prisons," National Institute on Drug Abuse (March 1, 2011), https://www.drugabuse.gov/news-events/nida-notes/2011/03/hiv-treatment-interruption-pervasive-after-release-texas-prisons.

158 Jeff Mellow and Robert B. Greifinger, "Successful Reentry: The Perspective of Private Correctional Health Care Providers," *Journal of Urban Health* 84, no. 1 (2007): 85–98.

159 The Pew Charitable Trusts, "Mental Health and the Role of the States" (June 2015), http://www.pewtrusts.org/en/research-and-analysis/reports/2015/06/mental-health-and-the-role-of-the-states; The Pew Charitable Trusts, "Substance Use Disorders and the Role of the States" (March 2015), http://www.pewtrusts.org/en/research-and-analysis/reports/2015/03/substance-use-disorders-and-the-role-of-the-states.

160 Kamala Mallik-Kane and Christy A. Visher, "Health and Prisoner Re-Entry: How Physical, Mental, and Substance Abuse Conditions Shape the Process of Reintegration."

161 Centers for Medicare & Medicaid Services, "Ending Chronic Homelessness."

162 U.S. Department of Health & Human Services, "New Medicaid Guidance Improves Access to Health Care for Justice-Involved Americans Reentering Their Communities" (April 28, 2016), https://enewspf.com/2016/04/28/new-medicaid-guidance-improves-access-to-health-care-for-justice-involved-americans-reentering-their-communities.

163 Centers for Medicare & Medicaid Services, "To Facilitate Successful Re-entry for Individuals Transitioning From Incarceration to Their Communities," letter to state health officials, SHO # 16-007 (April 28, 2016), https://www.medicaid.gov/federal-policy-guidance/downloads/sho16007.pdf.

164 Jay Hancock, "HHS Acts to Help More Ex-Inmates Get Medicaid," Kaiser Health News, April 29, 2016, http://khn.org/news/hhs-acts-to-help-more-ex-inmates-get-medicaid/.

165 Ibid.

166 Brendan Saloner et al., "Justice-Involved Adults With Substance Use Disorders: Coverage Increased but Rates of Treatment Did Not in 2014," *Health Affairs* 35, no. 6 (2016): 1058–66, doi:10.1377/hlthaff.2016.0005.

167 Paul Kirby, Warren Ferguson, and Ann Lawthers, "Post-Release MassHealth Utilization," UMass Medical School Center for Health Policy and Research (2011), http://www.mesconference.org/wp-content/uploads/2012/08/Tuesday_Improving-Health_Chacon-etal.pdf.

168 "Health Care Out from Behind Bars," Alliance for Health Policy, accessed March 8, 2017, http://www.allhealthpolicy.org/health-care-out-from-behind-bars-meeting-reentering-prisoners-needs-efficiently; Kara Miller, "Ohio Medicaid Pre-Release Enrollment Program" (presentation, 2017 Atlantic States Fiscal Leaders Meeting, Feb. 25, 2017), http://www.ncsl.org/Portals/1/Documents/fiscal/Kara_Miller_Presentation.pdf.

169 Ohio Department of Rehabilitation and Correction, Fiscal Year 2015 Annual Report, http://www.drc.ohio.gov/Portals/0/Reentry/Reports/Annuals/Annual%20Report%202015.pdf?ver=2016-08-03-152549-077.

170 Jed Lipinski, "State Prisons to Enroll Ex-Inmates in Medicaid Starting Jan. 1," *Times-Picayune,* Dec. 12, 2016, http://www.nola.com/health/index.ssf/2016/12/louisiana_medicaid_prison_re-e_1.html; Raman Singh (medical director, Louisiana Department of Corrections), interview with The Pew Charitable Trusts, Sept. 16, 2016.

171 "Medicaid Managed Care Market Tracker," Kaiser Family Foundation, accessed March 10, 2017, http://kff.org/data-collection/medicaid-managed-care-market-tracker/.

172 Louisiana, which expanded its Medicaid program effective July 1, 2016, is included in this total because it had not implemented the expansion at the time of its survey response.

173 Sachini N. Bandara et al., "Leveraging the Affordable Care Act to Enroll Justice-Involved Populations in Medicaid: State and Local Efforts," *Health Affairs* 34, no. 12 (2015): 2044-2051.

174 Alabama, California, Kansas, and New Hampshire did not indicate to Pew and Vera whether they generally suspend or terminate Medicaid benefits.

175 The Pew Charitable Trusts, "How and When Medicaid Covers People," 3.

176 Deloise Williams (assistant division director for medical services at the Missouri Department of Corrections), interview with The Pew Charitable Trusts, Sept. 16, 2016.

177 Sharon Baucom (director of clinical services, Office of Inmate Health and Clinical Services, Maryland Department of Public Safety & Correctional Services), interview with The Pew Charitable Trusts, Sept. 9, 2016.

178 Lois M. Davis et al., "Understanding the Public Health Implications of Prisoner Reentry in California: State-of-the-State Report," RAND Corporation (2011), https://www.rand.org/content/dam/rand/pubs/monographs/2011/RAND_MG1165.pdf.

179 Ben Butler and Judy Murphy, "The Impact of Policies Promoting Health Information Technology on Health Care Delivery in Jails and Local Communities," *Health Affairs* 33, no. 3 (2014): 487-492.

180 Ben Butler, "New HIE Funding Opportunities for Corrections: Health Information Technology's Role in Reducing Mass Incarceration," Community Oriented Correctional Health Services (March 2016), http://www.cochs.org/files/CMS/New-HIE-Funding-Opportunities.pdf.

181 Cookie Crews (administrator of adult institutions, Health Services Division, Kentucky Department of Corrections), interview with The Pew Charitable Trusts, Aug. 25, 2016.

182 Centers for Disease Control and Prevention, "HIV Testing Implementation Guidance for Correctional Settings" (January 2009), https://www.cdc.gov/hiv/pdf/group/cdc-hiv-correctional-settings-guidelines.pdf.

183 Liza Solomon et al., "Survey Finds That Many Prisons and Jails Have Room to Improve HIV Testing and Coordination Of Postrelease Treatment," *Health Affairs* 33, no. 3 (2014): 434-442.

184 Brian T. Montague et al., "Systematic Assessment of Linkage to Care for Persons with HIV Released from Corrections Facilities Using Existing Datasets," *AIDS Patient Care and STDs,* 30, no. 2 (2016): 84-91.

185 Centers for Disease Control and Prevention, HIV Surveillance Report, 2015, vol. 27 (Atlanta: CDC, November 2016), https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2015-vol-27.pdf.

186 The 2017 Florida Statutes, HIV Testing of Inmates Prior to Release, Title XLVII 945.355, http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0900-0999/0945/Sections/0945.355.html.

187 Health Resources and Services Administration Ryan White HIV/AIDS Program, "Part B: Grants to States and Territories" (2014), https://hab.hrsa.gov/sites/default/files/hab/Publications/factsheets/partbfacts2014.pdf.

188 Virginia Department of Health, "Coordination: Implementation Manual" (October 2015), http://www.vdh.virginia.gov/content/uploads/sites/10/2016/09/Imp-Manual-CARE-COORDINATION-10-7-15.pdf.

189 Tianhua He et al., "Prevention of Hepatitis C by Screening and Treatment in U.S. Prisons," *Annals of Internal Medicine* 164, no. 2 (2016): 84-92.

190 "Hepatitis C Treatments Give Patients More Options," U.S. Food & Drug Administration, last modified May 10, 2017, https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm405642.htm.

191 John T. Nguyen et al., "A Budget Impact Analysis of Newly Available Hepatitis C Therapeutics and the Financial Burden on a State Correctional System," *Journal of Urban Health* 92, no. 4 (2015): 635-49.

192 All states are eligible for funding. In 2016, South Dakota did not apply for funding.

193 American Society of Addiction Medicine, "The ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use" (2015), http://www.asam.org/docs/default-source/practice-support/guidelines-and-consensus-docs/asam-national-practice-guideline-supplement.pdf; U.S. Department of Health and Human Services, "Addressing Prescription Drug Abuse in the United States: Current Activities and Future Opportunities" (2013), https://www.cdc.gov/drugoverdose/pdf/hhs_prescription_drug_abuse_report_09.2013.pdf.

194 Richard P. Mattick et al., "Methadone Maintenance Therapy Versus No Opioid Replacement Therapy for Opioid Dependence," *Cochrane Database of Systematic Reviews* 3 (2009): CD002209, http://www.ncbi.nlm.nih.gov/pubmed/19588333; Sandra D. Comer et al., "Injectable, Sustained-Release Naltrexone for the Treatment of Opioid Dependence: A Randomized, Placebo-Controlled Trial," *Archives of General Psychiatry* 63, no. 2 (2006): 210–8, http://jamanetwork.com/journals/jamapsychiatry/fullarticle/209312; and Paul J. Fudala et al., "Office-Based Treatment of Opiate Addiction With a Sublingual-Tablet Formulation of Buprenorphine and Naloxone," *New England Journal of Medicine* 349, no. 10 (2003): 949–58, http://www.ncbi.nlm.nih.gov/pubmed/12954743.

195 Robert P. Schwartz et al., "Opioid Agonist Treatments and Heroin Overdose Deaths in Baltimore, Maryland, 1995-2009," *American Journal of Public Health* 103, no. 5 (2013): 917–22, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3670653.

196 Schwartz et al., "Opioid Agonist Treatments"; Judith I. Tsui et al., "Association of Opioid Agonist Therapy with Lower Incidence of Hepatitis C Virus Infection in Young Adult Injection Drug Users," *JAMA Internal Medicine* 174, no. 12 (2014): 1974–81, http://archinte.jamanetwork.com/article.aspx?articleid=1918926; and David S. Metzger et al., "Human Immunodeficiency Virus Seroconversion Among Intravenous Drug Users In- and Out-of-Treatment: An 18-Month Prospective Follow-Up," *Journal of Acquired Immune Deficiency Syndromes* 6, no. 9 (1993): 1049–56, http://www.ncbi.nlm.nih.gov/pubmed/8340896.

197 Joshua D. Lee et al., "Extended-Release Naltrexone to Prevent Opioid Relapse in Criminal Justice Offenders," *The New England Journal of Medicine* 374 (2016): 1232-42.

198 Michael S. Gordon et al., "A Randomized Clinical Trial of Methadone Maintenance for Prisoners: Findings at 6 Months Post-Release," *Addiction* 103, no. 8 (2008): 1333-1342.

199 Michael S. Gordon et al., "Buprenorphine Treatment for Probationers and Parolees," *Substance Abuse* 36, no. 2 (2014): 217-225.

200 Because of federal prescribing regulations, prisons are not permitted to provide a supply of methadone. Therefore, all states facilitating access to this treatment do so via a referral to a methadone clinic.

201 Carla K. Johnson, "Prisons Fight Opioids with Vivitrol Injection," *Journal of Emergency Medical Services* (Nov. 14, 2016), http://www.jems.com/articles/news/2016/11/prisons-fight-opioids-with-vivitrol-injection.html.

202 Louisiana Department of Public Safety and Corrections—Corrections Services, "Strategic Plan: FY 2017-2018 to 2021-2022" (July 2016), http://www.doc.la.gov/media/1/final.strategic.plan.fy.2017-2018.to.2021-2022.pdf.

203 Raman Singh (medical health director, Louisiana Department of Public Safety and Corrections), interview with The Pew Charitable Trusts, May 2, 2017.

204 "Mental Health Services," Oklahoma Department of Corrections, accessed May 9, 2017, http://doc.ok.gov/mental-health-services.

205 2015 New York Laws, Correction, Article 16 § 404, http://law.justia.com/codes/new-york/2015/cor/article-16/404.

206 "Program Profile: Mental Health Services Continuum Program," National Institute of Justice, last modified Jan. 26, 2016, https://www.crimesolutions.gov/ProgramDetails.aspx?ID=445.

207 Janeen Mongar (quality management program administrator, Colorado Department of Corrections), interview with The Pew Charitable Trusts, Aug. 25, 2016.

208 Terri Catlett (deputy director, health services, North Carolina Department of Public Safety), interview with The Pew Charitable Trusts, Aug. 23, 2016.

209 Laura Brooks (director, Health & Rehabilitation Services, Alaska Department of Corrections), interview with The Pew Charitable Trusts, Oct. 19, 2016.