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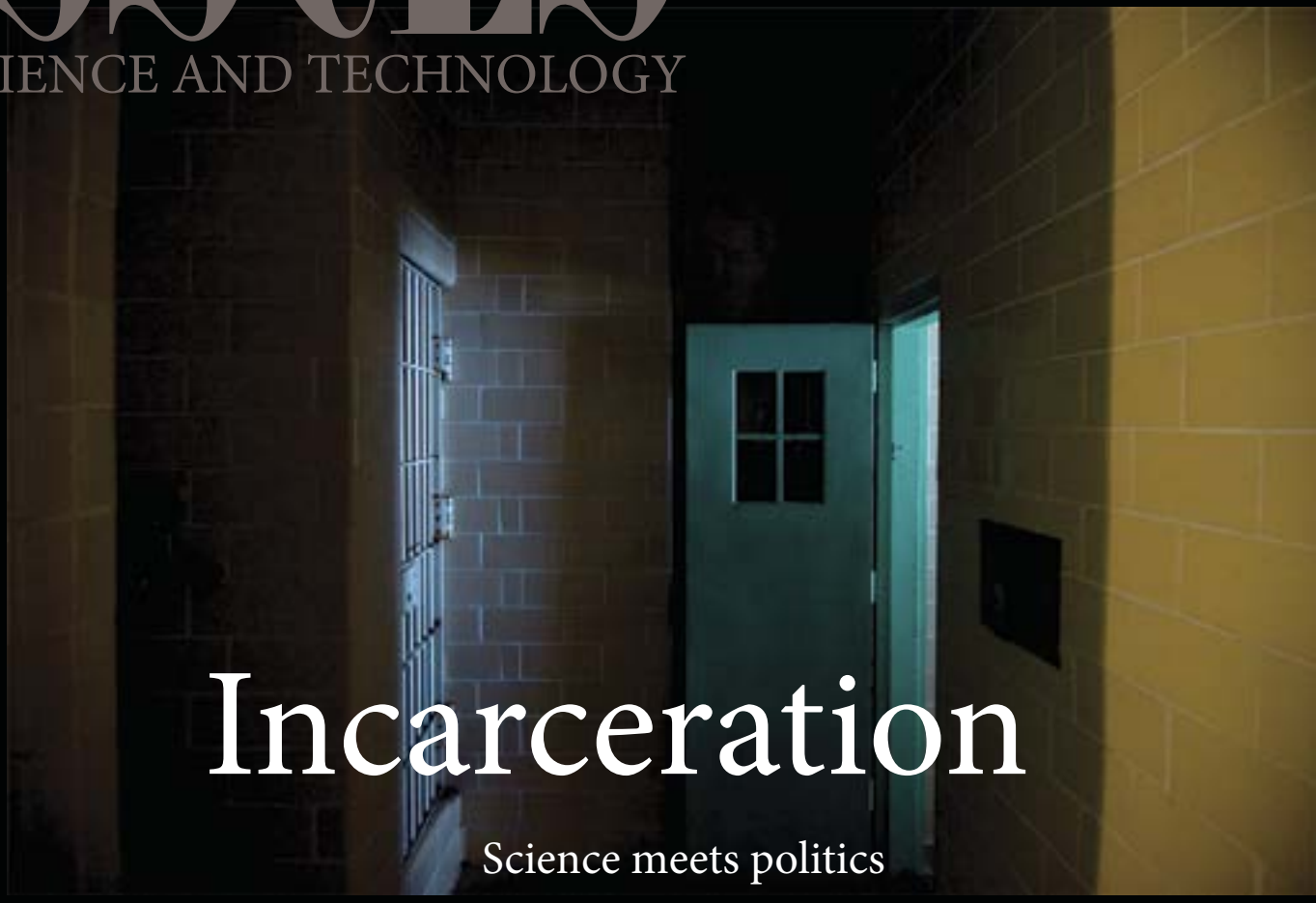

Incarceration

Science meets politics

Impact on communities of color

The return to society

The health care challenge

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Correctional Health Is Community Health

Drawing from these recommendations to improve health care in prisons and jails can yield far-reaching benefits for inmates, their home communities, and the nation.

The recent and dramatic expansion of the criminal justice system in the United States has been described by legal scholars as hyperincarceration, or "mass incarceration." Much of the increase in the size of the prisoner population is a result of the "War on Drugs" and associated federal reforms such as mandatory minimum sentencing laws. Over the past 40 years, "tough on crime" rhetoric and federal grants for law enforcement agencies produced an unprecedented increase in arrests for drug possession. Concurrently, severe mandatory minimum sentences were imposed *en masse* on people arrested for drug-related charges, resulting in an expanded population of prisoners who would serve longer sentences. Disproportionately, the burden of mass incarceration landed on the backs of the nation's most vulnerable populations, namely low-income and undereducated people of color.

While the socioeconomic disparities between incarcerated and nonincarcerated populations are stark, the health disparities encountered in incarcerated populations are among the most dramatic. Over half of state prisoners and up to 90% of jail detainees suffer from drug dependence, compared with only 2% of the general population. Hepatitis C is nine to 10 times more prevalent in correctional facilities than in communities. Chronic health conditions, such as asthma and hypertension, and mental health disorders also affect prisoner populations at rates that far exceed their prevalence in the general population. Often, the health care and health status of prisoners is regarded as something insular, something of no concern to, and uniquely disjointed from, the general population. But over 95% of incarcerated individuals will eventually return to their communities, and their health problems and needs will often follow along.

Adding to the challenges, the communities to which inmates return tend overwhelmingly to be low-income communities of color, and they often lack adequate health care resources. For many members of the justice-involved popu-

lation, emergency rooms serve as their primary care providers, and these services are sought only once symptoms of a health condition or injury have become sufficiently acute.

Although incarceration is often counter-productive to the health and well-being of the affected population, it does create a public health opportunity: providing screening, diagnosis, treatment, and post-release linkage to care for members of a vulnerable population who may not seek or have access to services otherwise. In fact, correctional health care, if it capitalizes on this opportunity, can reduce the burden of disease for communities that carry the greatest burden.

Population health profile

In examining these issues, it is useful to start by examining the demographic and epidemiological features of the incarcerated population. A number of social determinants are strongly associated with poor health. In the United States, being non-white, low-income, undereducated, homeless, and uninsured are among the strongest predictors. When compared with the general population, individuals in jails and prisons exhibit these predictors of poor health disproportionately. As a result, the population of inmates typically shares a number of health profile characteristics, including mental health disorders, drug dependence, infectious disease, and chronic conditions. Moreover, some groups pose unique challenges to correctional health care. Examining these factors in order:

Mental health disorders. In the 1970s, psychiatric hospitals across the nation began to be deinstitutionalized with the intention of shifting patients to more humane care within their communities. However, insufficient funding for community-based mental health programs left many patients without access to care altogether. As a consequence, people with undiagnosed, untreated, or inadequately treated mental health disorders experienced heightened risks of incarceration. Indeed, there are now more people with serious mental health disorders in Chicago's Cook County Jail, New York's Riker's Island, or the Los Angeles County Jail than there are in any single psychiatric hospital in the nation.

Estimates of the number of inmates who have symptoms of a psychiatric disorder—as specified by the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV)—vary widely but often exceed half of the incarceration population. In contrast, approximately one in 10 people in the general population has symptoms of a psychiatric disorder by the same criteria. Additionally, an estimated 10 to 25% suffers from serious mental health problems, such as schizophrenia or major affective disorders; by comparison, an estimated 5% of the general population suffers from a serious mental illness.

Drug dependence. Given the role of the war on drugs in mass incarceration, high rates of drug dependence among inmates are not surprising. Over 50% of all inmates meet the diagnostic criteria for drug dependence or abuse, and one in five state prisoners has a history of injection drug use. Up to a third of all heroin users—an estimated 200,000 people—pass through U.S. prisons and jails each year. The co-morbidity of substance abuse and mental illness among inmates is strikingly high. Among those who have a serious mental illness, over 70% also have a co-occurring substance abuse disorder; in the general population, the corresponding percentage is about 25%.

Infectious disease. Contagious diseases such as tuberculosis (TB), sexually transmitted infections (STIs), HIV, and hepatitis C (HCV) are prevalent in correctional facilities. In 2002, it was estimated that jails and prisons, respectively, had a 17 and 4 times greater prevalence of TB than the general population. Although the prevalence of TB in correctional facilities appears to have declined in more recent years, outbreaks are still possible, as poorly ventilated, enclosed, densely populated dwellings are highly conducive to the spread of TB.

Although the true prevalence of STIs in correctional facilities is difficult to estimate due to differences in screening procedures (most specifically, universal opt-out vs. opt-in screening), studies consistently report that the prevalence of chlamydia, gonorrhea, and syphilis are higher in correctional populations, particularly jails, than in the general population. The prevalence of STIs is also especially high among female inmates, who are more likely to have a history of sex work than their male counterparts.

The prevalence of diagnosed HIV in correctional facilities has recently declined, but remains four to five times higher among inmates than in the general population. Correctional facilities, which are increasingly adopting routine screening procedures, have played an important role in diagnosing those who would not otherwise seek testing. Because injection drug use is a common route of transmission for both HIV and HCV, coinfections of these diseases are common. HCV is estimated to be nine to 10 times more prevalent among inmates than in the general population, and over half of prisoners with HIV are estimated to also have HCV.

Chronic conditions. Chronic health conditions, such as diabetes, hypertension, and asthma, now comprise a growing proportion of correctional health care needs. This increasing

prevalence comes as the result of two trends: the aging prison population and the nation's general obesity epidemic. About 40% of all inmates are estimated to have at least one chronic health condition. With a few exceptions, nearly all chronic health conditions are more prevalent among inmates than in the general population.

Special populations. Certain populations pose a unique challenge to correctional health care; these include women, juveniles, and aging populations. Female inmates, while comprising only 10% of the incarcerated population, have a greater burden of disease than their male counterparts. Post-traumatic stress disorder is particularly common among incarcerated women, about a third of whom experienced physical abuse and a third of whom experienced sexual abuse prior to incarceration. An estimated 5 to 6% of incarcerated women are pregnant upon entry to jail or prison, and the prevalence of STIs among female inmates is at least twice that of the incarcerated male population.

Incarcerated juveniles also have a higher burden of disease than their nonincarcerated peers. Dental decay, injury, and substance use are common, and many were subject to abuse prior to incarceration. Twenty% of incarcerated juveniles are parents or expecting, and STIs are highly prevalent among incarcerated juveniles. Although incarcerated juveniles are typically held in facilities separate from adults, about 10% are held in adult prisons; in both settings, this population is highly vulnerable disease and abuse.

The imposition of longer sentences in the 1980s and 1990s produced a dramatic increase in the number of older adults in corrections. From 1990 to 2012, the number of inmates aged 55 or older increased by 550% as the prison population doubled. Older inmates, as in the general population, have higher rates of chronic health condition; geriatric syndromes, such as cognitive impairment or dementia; and disabilities, compared with younger inmates. Given the aging incarcerated population, prisons and jails—which were designed to hold young and healthy inmates—are increasingly becoming a site for nursing home-level care and treatment for chronic conditions.

Challenges in correctional health care

In sum, correctional institutions are the sole health care providers for some of the nation's sickest people. Yet the quality and quantity of health care that is provided across correctional institutions remains unclear. Several factors contribute to this problem.

There are various legal issues. In 1976, the Supreme Court codified what it called the "evolving standard of decency" for the provision of health care in correctional institutions. In the case of *Estelle v. Gamble*, the court found that "deliberate indifference to serious medical needs" was the "unnecessary and wanton infliction of pain," and therefore a violation of the Eighth Amendment prohibition of cruel and unusual punishment. The *Estelle* decision and a series of subsequent litigations have led to expanded health care services for inmates.

Lawmakers should amend the Prison Litigation Reform Act to provide increased pressure for improved correctional health care.

Although the introduction of constitutionally mandated standards of care for inmates represents progress, many observers have argued that these standards for care are quite low. In lawsuits alleging inadequate care, inmates must prove not only that they received substandard care but also that correctional providers demonstrated "deliberate indifference." That is, they must prove that a correctional facility staff member or health care professional knew of and disregarded the risk to the inmate—a tremendously difficult circumstance to prove without reasonable doubt. The Prison Litigation Reform Act of 1996 imposed additional limitations in litigating for better medical care, including the requirement that prisoners pay fees to file a suit and that inmates adhere to the "exhaustion rule," which requires inmates to exhaust all administrative appeal options prior to filing a case, a process that can often take years.

There are also cost issues. Correctional institutions are a key component of public safety, yet many critics have noted that the costs associated with the unprecedented expansion of the criminal justice system now far outweigh the benefits. In five states, correctional spending now exceeds spending on higher education. Since 1980, state correctional spending has increased by 300% to $50 billion per year, and after Medicaid, correctional spending is now the fastest-growing area of government spending. In Rhode Island, the average cost of incarcerating one inmate in minimum security is $53,462 per year; for an inmate in high security, the cost jumps to $182,396 per year. Many observers have noted that addiction and mental health treatment programs, as alternatives to incarceration, would be more cost-effective and would better address the underlying problems.

Varying standards add another confounding factor. There

are many international guidelines for correctional health care—the most notable being those framed by the World Health Organization and the United Nations High Commissioner for Human Rights—but the United States has neither regularly monitored nor enforced these guidelines. Within the United States, standards for inmate care have been outlined by the American Public Health Association, the American Correctional Association, and the National Commission on Correctional Health Care. The latter group offers voluntary accreditation to facilities that demonstrate adoption of the commission's health standards, but only a fraction of facilities have pursued accreditation, and no systematic study has been conducted to evince improved conditions following the adoption of these standards. Uniform quality-of-care standards that are monitored and enforced would allow for meaningful comparisons across facilities and with community populations; more timely identification of underperformance; and a framework to guide improvements in care delivery.

Screening protocols and procedures, especially for infectious disease, also vary widely across states and institutions. Although all facilities offer some screening, particularly for TB, syphilis, and HIV, a much smaller number screen routinely. As of 2012, only about 19% of prison systems and 35% of jails provided routine opt-out HIV testing. Traditionally, HIV screening in correctional institutions has been opt-in; that is, it occurs only at the request of the inmate. Increasingly, however, facilities are adopting opt-out procedures, whereby HIV screening is automatic, though still optional, for all inmates. At individual facilities, barriers to improving screening procedures include reluctant administrators; logistical challenges, such as insufficient staffing; and in the case of jails, where many people taken in are released within 48 hours, high turnover makes screening and subsequent receipt of test results especially challenging.

Overall, screening procedures and policies are inconsistent across the nation, and this inconsistency can be attributed, in part, to the absence of national screening procedures, as well as to the disconnect between correctional health care and local health departments. Despite these challenges, however, a few facilities have served as model public health collaborators in screening for infectious disease. Notably, at correctional facilities in Rhode Island, routine HIV testing led to a diagnosis of one-third of all HIV cases in the state in the 1990s.

Differences in how correctional health care is administered comprise another variable. Health care is typically provided in one of three ways: public correctional care, private industries, or academic medical centers. Occasionally, medical services are contracted to multiple types of care providers within a single facility. The largest correctional facilities generally represent public correctional care and are equipped to provide a full range of in-house medical services, whereas smaller municipal and local jails contract medical care to local providers. As of 2004, 32 states contracted with private correctional care industries for some or all of their medical services, accounting for about $3 billion of the estimated $7.5 billion allocated for correctional health care. In 2005, 40%% of all correctional health care was administered by for-profit, private correctional care industries. Findings from state audits and anecdotal evidence suggest that some private correctional care industries may administer substandard care. However, no comprehensive studies have been conducted on which type of correctional health provider (public, private, or academic) is associated with best quality of care or health outcomes.

Drug treatment adds to the complexity. Well over half of all inmates in jails and prisons suffer from drug dependence and have a substantial need for evidence-based drug treatment. Correctional health care systems have taken a variety of approaches to administering drug treatment: referral to drug courts where treatment is provided with judicial oversight, assignments to interventions within the community, treatment provided while incarcerated, and participation in reentry programs. Drug treatments offered to those who are incarcerated have included individual drug and alcohol education, group counseling, relapse prevention, case management, cognitive behavioral therapy, medication-assisted therapy (MAT), and others. Although MAT with methadone or buprenorphine is among the most promising treatment options for opioid dependence, this approach remains dramatically underutilized in correctional care due to concerns for cost, stigma, and limited awareness of the social, medical, and economic benefits of providing such therapy in corrections.

Similarly, regulating drug availability in prisons varies. Although it is difficult to assess the quantity of illicit drugs that are available in prisons, ample anecdotal evidence suggests that, in some cases, illicit drugs can be highly available. From 2001 to 2011, the New York State Department of Corrections reported that the annual rate of positive drug tests among inmates ranged between 2.9% and 3.8%. Illicit drugs can enter correctional facilities through a variety of routes: via mail, by visiting relatives, through prison staff, and by other means. Prisons have attempted to regulate drug availability through supply-reduction strategies, demand-reduction strategies, or both. Supply-reduction strategies include the use of drug dogs, random searches, random urine tests, and incentivizing

noncontact visits. Demand-reduction strategies include providing medication-assisted therapy and drug-free units, the latter of which have been used in Australia and aim to allow inmates to maintain distance from a prison drug scene. No comprehensive studies have been conducted on which strategy to regulate drug availability is most effective, although MAT is likely promising.

To address and reduce these challenges facing correctional health care, we offer a series of recommendations:

- Lawmakers should amend the Prison Litigation Reform Act to provide increased pressure for improved correctional health care.
- Addiction and mental health treatment programs should be pursued as alternatives to incarceration whenever possible.
- The Department of Justice, or some other regulatory body, should monitor and enforce adherence to correctional care standards (such as those proposed by the National Commission on Correctional Health Care) and uniform screening procedures.
- Jail and prison medical directors should work toward improving access to MAT, both within corrections facilities and upon inmates' release.

Conditions of confinement

As noted, many people who are confined to jails and prisons enter these facilities with serious health conditions, including mental health disorders, drug dependence, infectious disease, and chronic conditions. Importantly, inmates' health is also known to change over the course of their confinement in correctional facilities—and the conditions of confinement may improve health outcomes for some but exacerbate health conditions for others.

For inmates whose lives on the outside are particularly chaotic, incarceration can offer stabilization. In addition to providing access to health care, prisons and jails provide guaranteed meals, stable housing, clean clothes, showers, structured days, and reduced access to substances to those who were previously dependent. For those inmates who had inconsistent access to food, shelter, and other basic needs, incarceration can dramatically improve physical health.

Although conditions of confinement have significant implications for correctional health, it is important to note that environments within facilities—and their corresponding impacts on health—may vary dramatically across institutions. Some of the key dimensions determining this variability include health care budget, staffing, facility layout, resources, correctional philosophy, and correctional leadership, among many other things. Moreover, facilities at differing custody levels (minimum, medium, maximum, and high) operate differently from one another. Here, the focus will primarily be on the impact of conditions of confinement for those who are confined to medium- and maximum-security prisons.

The effects of incarceration on the transmission of infectious disease are complex. Although the prevalence of infectious disease among inmates is relatively high, the incidence (or acquisition) of infectious disease within correctional facilities is low compared with many other areas of the world. In particular, the incidence of infectious diseases that require blood-to-blood transmission, such as HIV or HCV, is fairly low in correctional institutions; one explanation is that the primary routes of transmission for these diseases—sex and injection drug use, although potentially riskier when evaluated per event—occur more frequently outside than within correctional facilities. The overwhelming majority of HIV and HCV infections among incarcerated populations occur prior to incarceration or shortly following release. Conversely, however, the incidence of airborne infections, such as TB and influenza, can increase quickly in crowded conditions.

Incarceration can exacerbate some chronic conditions, such as asthma, because of poor ventilation, overcrowding, and stress. The impact of incarceration on general health is fairly difficult to evaluate. Findings on inmates' physical activity are conflicting, and likely vary across institutions. Meals in corrections are often energy-dense, with high fat and calorie content, but may be better than those normally consumed by a large subset of the incarcerated population prior to incarceration.

Many key characteristics of daily life in correctional facilities—including restricted liberty, material deprivations, limited movement, the absence of meaningful endeavors, lack of privacy, and risks of interpersonal danger—expose inmates to stressors that can incite (short- or long-term) or exacerbate symptoms of mental health disorders. Although many of these facets are characteristic of correctional institutions, many of their negative impacts on emotional well-being can be negated through the reduction of idleness in increased availability of meaningful programming. The availability of programming varies across institutions, but general trends emerge: while vocational training programs have increased across state and federal prisons over the past 30 years, the number of facilities offering college courses has declined dramatically since 1990, corresponding with the elimination of Pell grant funding for inmates. In addition to promoting emotional well-being, meaningful programming can be highly

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rehabilitative, increasing inmates' employment opportunities upon release from prison and reducing likelihood for recidivism.

Extreme conditions of confinement, such as overcrowding and long-term isolation, can have strong deleterious effects in prisoner health. Overcrowded conditions, which are defined as facilities that are operating near or exceeding capacity, aids the spread of communicable diseases and places undue additional stress on inmates and facility staff. Overcrowding has also been associated with increased risk of suicide, as overcrowding reduces the availability of meaningful programming.

Segregation, or "solitary confinement," is often used for protective custody and as punishment for disciplinary infractions. Increasingly, correctional systems are relying on long-term isolation in "supermax" facilities for punishment—a practice that, unlike traditional solitary confinement, enforces near-total isolation. Long-term isolation in supermax, however, has been shown to elicit a range of adverse psychological responses, including anxiety, rage, hallucinations, and self-mutilation in as little as 10 days; prisoners with preexisting mental health conditions are particularly vulnerable to the deleterious effects of this isolation. Many supermax prisoners are subject to these conditions for several years. Some critics have equated long-term confinement in supermax facilities with psychological torture.

To improve conditions of confinement, we offer the following recommendations:

- Funding should be increased for educational and vocational programming.
- Lawmakers should pursue sentencing reforms that reduce the current inmate population.
- Federal and state policymakers should adopt legislation that eliminates or dramatically reduces the use of, and duration of stay in, supermax facilities.

Continuity of care

The time when an inmate transitions from incarceration back into society poses some special risks and opportunities. During the two weeks that follow release from prison, people are 13 times more likely to die than members of the general population. Drug overdose, cardiovascular disease, homicide, and suicide are among the most common causes of death during the weeks that follow release from prison. Risk of fatal drug overdose during this period is particularly staggering, with recently released prisoners being 129 times more likely to die from drug overdose than members of the general population. MAT in corrections with continuation into the community, paired with overdose education and naloxone distribution programs delivered prior to release, could dramatically reduce inmates' risk of fatal drug overdose following release.

The next weeks or months that follow release often bring additional stresses. During this time, many individuals struggle to secure gainful employment and stable housing while also laboring to reestablish support networks and relationships within the community. This process of securing basic needs and rebuilding a life requires a focus of energy and effort, and as a result, health care access and continuity of care quickly become low priorities for many recently released inmates.

As of 2010, as many as 90% of people who were released from jails and prisons had no health insurance, which substantially limited their access to health care services. Because securing gainful employment and employer-provided health insurance can take considerable time following release from prison, Medicaid was and continues to be an important source of health care coverage for people who are justice-involved. The recent inception of the Affordable Care Act, which expands Medicaid eligibility to childless individuals whose incomes fall below 138% of the federal poverty level, has tremendous implications for health care access to people who were previously incarcerated. As many as 2.86 million, or 22%, of the estimated 13 million people who will now be eligible for Medicaid will be members of the justice-involved population.

Although the Medicaid expansion is certainly cause for optimism relating to continuity of care, collaborations between correctional systems and Medicaid to facilitate enrollment are lacking. Federal guidelines urge that states only suspend Medicaid coverage during a period of incarceration, but most states terminate inmates' Medicaid altogether and take no action to reenroll inmates upon release. As a result, many justice-involved individuals experience a lapse in medical coverage during their transition from correctional facilities into their communities.

There is substantial need for re-entry programs that address employment, housing, and other transitional needs that ultimately affect health. Indeed, successful linkage to care should be understood and addressed within the context of individuals' survival priorities and re-entry needs. A few innovative programs may serve as models for retaining justice-involved people in post-release medical care; these programs include the Transitions Clinic Network that currently operates in 10 cities across the nation; Project Bridge in Rhode Island; Community Partnerships and Supportive Services for HIV-Infected People Leaving Jail (COMPASS) in Rhode Island; and the Hampden County Model, in which the focus is on rehab and re-integration, was developed by and implemented in the Hampden County jail, in Ludlow, Massachusetts.

To improve continuity of care, we offer the following recommendations:

- Medical program directors and other correctional facility staff should prioritize delivery of medication-assisted therapy, overdose education, and naloxone distribution programs to reduce inmates' risk of fatal drug overdose following release.
- Correctional system administrators should update current systems so that Medicaid coverage can be suspended rather than terminated to reduce interruptions to coverage for people who are justice-involved. Until such updates, correctional systems should take steps to facilitate an inmate's Medicaid reenrollment upon his or her release.
- In collaboration with medical providers, correctional facilities should adapt and replicate the model programs outlined above to improve linkage to care.

Challenges and benefits

The recommendations we have offered were developed to primarily target administrators of correctional facilities, people and groups who can influence standards and practices, and policymakers in positions to propose and adopt needed legislation. On another level, we hope these suggestions might guide the efforts of various other people, including staff members within correctional facilities, activists involved in prison reform, and other key stakeholders. It will take collective action to speed change.

And change is clearly needed. More than 2.2 million adults are incarcerated in U.S. jails or prisons, and over 95% of them will eventually return to their communities. On their return, they will carry with them any mental health disorders, drug dependence, or chronic conditions that were not diagnosed or treated through correctional health care systems or managed through continued care upon release. Any untreated infectious disease, such as HIV, HCV, or TB, will also join them on their journeys home. Addressing the challenges that face correctional health care, improving inmates' conditions of confinement, and ensuring that justice-involved people receive continuity of care not only will reduce the burden of disease for the nation's sickest but also will improve health conditions for the underprivileged communities to which the incarcerated will return.

People of color are disproportionately represented in the U.S. criminal justice system, and as a result, communities of color feel the strongest effects, good or bad, of incarceration. Although many of the community-level impacts of incarceration are overwhelmingly negative—such as exacerbating social, economic, and political inequalities for vulnerable populations—correctional health care offers a unique public health opportunity. By addressing the health care needs of people in corrections through routine screening, diagnosis, treatment, and linkage to care, the disproportionate burden of disease that is borne by communities of color can be somewhat mitigated.

Although the obstacles that lie ahead are towering, public interest and investment in resolving these issues are also mounting. On July 14, 2015, President Barack Obama delivered an impassioned speech on criminal justice reform at the NAACP annual convention, outlining his case for sweeping changes to policing, drug prosecutions, sentencing, and the conditions of confinement and release. It is our hope that this article will shed light on the challenges at hand and offer guidance to those who wish to enact change. Through passionate advocacy and informed policy, it is possible to dramatically improve correctional health—and ultimately to improve community health.

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