

**CHALLENGES AND PUBLIC HEALTH CONCERNS OF  
CHRONIC DISEASE MANAGEMENT IN  
UNITED STATES PRISONS**

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by  
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## ABSTRACT

Mass incarceration in the United States has contributed to this country housing one of the largest prison populations in the world with just around 2 million incarcerated people. Every day, these individuals face health disparities and injustices while incarcerated, preventing proper management of their chronic health conditions. In chapter 1, the state of healthcare in prison is reviewed and the challenges that face many incarcerated individuals when seeking healthcare are explored; there is a hypothetical patient case focused on the unique challenges of diabetes care while incarcerated. In theory, the controlled nature of the prison environment should provide an opportunity to reach a vulnerable community; however, there are large gaps in the quality of care provided in prison and the emphasis seems to be on punishment over rehabilitation for return to the community.

In chapter 2, the focus is drawn from prison care purely while incarcerated to the transition from incarceration back to the community and how this should be considered in the context of public health. Delivering care in prison faces unique structural barriers but there are also challenges at the individual level such as limited health literacy. Upon return to the community, the transition of care from prison health to community health remains difficult, and recently incarcerated individuals return to their communities often without adequate support to maintain their health. This poor transition only harms public health as previously incarcerated people are reintegrated. By investing in correctional healthcare and prison reform, we can foster better individual outcomes, reduce health disparities, and strengthen community health.

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**CHAPTER 1**  
**HEALTHCARE DELIVERY AND CHRONIC DISEASE MANAGEMENT**  
**IN PRISONS**

**Introduction**

The United States has a robust prison system that houses a large percentage of the country's population; nearly 1.8 million people are incarcerated in the US and the US ranks sixth in the world for countries with the highest prison population rate (513 prisoners per 100,000 people), following El Salvador, Cuba, Rwanda, Turkmenistan and American Samoa as shown in the 2024 World Prison Population List.<sup>1</sup> These incarcerated people are split between state and federal prisons, local jails, juvenile correctional facilities, immigration detention facilities, as well as many smaller detention centers and this gargantuan system has a cost of \$182 billion each year.<sup>2</sup> Mass incarceration, this process of an unprecedented and disproportionate increase in incarceration rooted in systemic racism and the "war on drugs," has led to the massive size of the US prison system and increased drastically the amount of people the system is accountable for. As a result, it is important to consider the experiences and challenges facing those who are incarcerated, as they make up a large proportion of the American people and are a vulnerable population. One such hardship is access to quality healthcare while incarcerated.

Access to healthcare is a challenge many face in the public regardless, but once incarcerated, staying healthy and managing medical conditions becomes even more of a trial. There are significantly higher rates of chronic conditions and mental health conditions among the prison population versus the general population, and many

incarcerated people with serious health conditions do not receive appropriate care.<sup>3</sup> Incarcerated individuals do have a constitutional right to healthcare, but that right is managed by correctional health care programs that are often struggling to maintain staff and are underfunded.<sup>3</sup> Prison health care is overseen by both regional and national governments, which has led to various models being used. Some are run by prison staff and others maintain contracts with outside providers but there is no real standard set forth.<sup>4</sup> Several recent studies connect exposure to incarceration with a wide range of adverse health outcomes, including increased rates of HIV, opioid use disorder, age-related frailty, asthma, cardiovascular disease and hypertension.<sup>5</sup> As the prison population ages, which has been attributed to longer sentences and more limited parole policies among other trends, the chronic disease burden in US prisons increases with it.<sup>4</sup> Patients struggle to have their needs met while incarcerated and may report higher rates of chronic diseases than the general population as well as the development of geriatric conditions like mobility and hearing impairment at an earlier age.<sup>4,5</sup> Especially in jails, where people are held for shorter periods of time but still long enough to require care, necessary health and social services are largely not provided.<sup>2</sup> This chapter highlights the challenges of chronic disease management in prisons, the unethical treatment of incarcerated people in the prison health setting, and what prisons should be doing right with the resources they have. One thing is for certain: prisons are designed for punishment, not care and rehabilitation.

### **The State of Prison Health**

Health care delivery and maintenance in prisons is largely disappointing, even though it has been established that prisoners have a right to healthcare and should not be

denied that right. The 1976 *Estelle v. Gamble* case established this right to healthcare; however, it only states that corrections departments can face penalties if they have inflicted “cruel and unusual punishment” by demonstrating a “deliberate indifference to serious medical needs” and denying medical care to incarcerated people.<sup>6</sup> As a result, proving the gravity of the grievance become the burden of the incarcerated person and they start off at a disadvantage. Since 2000, approximately half of all state prison systems have been ordered by the court to better their medical care due to the truly poor conditions there.<sup>6</sup> There are several aspects of the prison health system that warrant criticism, but two overarching issues are at the crux of the conflict: insufficient funding and the lack of a universal standard for prison health management, and the inadequacy of consistent high-quality care access, which does not provide incarcerated people with the necessary tools to manage their own health.

Because prison health is mostly funded by state and local governments and managed by corrections departments, prison health care is not structured to focus on the individual, but instead centered around reducing costs with minimal oversight. Instead of prioritizing patients, the prison healthcare system functions as a walled-off cost control service for corrections departments and focuses on the business needs of the prison.<sup>6</sup> State and local governments must pay for this care but are often denied crucial federal subsidies to help them because of Medicaid’s “Inmate Exclusion Policy” which prevents incarcerated people from being assisted by Medicaid.<sup>6</sup> While states independently can make changes to who can receive Medicaid (and few have started the process to try and include inmates in that group), they lack federal support. In addition to a lack of federal funding, because the healthcare services in prison are provided by the corrections

departments themselves, there is a large emphasis on just doing what is best for business. This extends to unsavory involvement of correctional officers in patients' healthcare; they are often the first person an inmate must talk to so they can gain access to care, and the officers thus have exposure to sensitive health information that patients may not want to share.<sup>6</sup> Removing healthcare responsibility from purely the correctional facility would likely be a strong step forward in bettering this process.

A symptom of the scattered state and local funding for prison healthcare is the lack of a centralized set of standards for healthcare in prison. In the RAND study from 2011 analyzing data from Missouri, New York, Texas, Ohio, and Washington along with the federal Bureau of Prisons, they found that the individual systems did monitor quality of care somehow, but all of their metrics and methods varied wildly.<sup>7</sup> In addition, while the standards they explored had process measures associated with them such as speed of service delivery, none of them assessed patient outcomes or whether evidence-based care was provided.<sup>7</sup> This lack of standard oversight is concerning, but what is further troubling is the conflict of interest it creates because the state corrections departments are monitoring their own quality of care, and their priorities might be focused on cost-cutting and avoiding lawsuits.<sup>6</sup> Unfortunately, the only major way for incarcerated people to advocate for themselves in these conditions is through lawsuits, which corrections departments actively work to avoid and shut down. Not surprisingly, the underfunded system and lack of a centralized standard of care creates a scenario perfect for a growing burden of acute and chronic medical conditions. Incarcerated people are often left to face this challenge without the proper tools or education to do so.

Overall, the burden of medical disease in prisons is quite large, ranging from mental health concerns to drug use disorders to infection to other chronic medical conditions. One in ten incarcerated people are diagnosed with depression or post-traumatic stress disorder, 24% have alcohol use disorder and 39% a drug use disorder, and these conditions are often comorbid; compared with the general population most mental disorders are at least twice as prevalent among incarcerated people.<sup>8</sup> People who use drugs are hugely overrepresented in US prisons with overdose as a leading cause of death among currently and formerly incarcerated people.<sup>5</sup> Jails and prisons also have a higher burden of most chronic medical conditions than the population in general, even when corrected for socioeconomic differences and other possible confounders.<sup>9</sup> With such a high burden of disease, one would expect a robust health system that can manage all of these incarcerated patients, provide them proper medications and health education, but that is not what the patient experience is in while incarcerated.

Patients who are incarcerated are denied consistent access to high-quality care, important tools and medications that are required for them to manage their health, and health education that can prepare them to manage their medical conditions independently. While in prison, patients cannot choose their physicians or seek out second opinions, they cannot choose the setting of their care, and their needs are frequently downplayed or ignored by staff who dismiss them as “malingerers” who lie to receive special attention.<sup>6</sup> When they are finally seen, it appears they are not always receiving necessary medications or care that meets the established standard; in a cross-sectional study from 2018-2020 comparing incarcerated and nonincarcerated populations, the use of prescription medications for chronic medical conditions was consistently lower in jails

and prisons than in the community.<sup>3</sup> The disparity after adjustment for disease prevalence was 2.9-fold for diabetes, 2.4-fold for hypertension, 4.1-fold for depression and severe mental illness, and a large 5.5-fold for asthma.<sup>3</sup> In addition to medications for these chronic diseases, patients often struggle to receive medications for opioid use disorder such as methadone, buprenorphine and naltrexone; in a study of 21 states with the heaviest burden of opioid-related mortality, these medications were provided by only 9-15% of state prisons depending on medication.<sup>5</sup> Without access to necessary medications, incarcerated people have no power to begin to manage their own health.

In addition to a lack of medication access, incarcerated people have inadequate availability of personal tools for staying healthy such as healthy food options, sufficient personal funds to pay for healthcare, internet access, and a supportive healthcare team. Part of preventing and managing chronic medical conditions involves a balanced diet, especially if a patient has diabetes or another illness requiring a particular diet, and this can be challenging in prison. There are limited options for caloric intake in prisons, which rarely includes fresh fruits, vegetables, low fat, or low sodium options, all of which contain essential nutrients.<sup>10</sup> Additionally, a study from 2015 found that incarcerated people gain a statistically significant amount of weight while in prison, and this disproportionately affected females.<sup>10</sup> Part of the reason for this weight gain was likely due to an inability to manage one's own diet, or to engage in a preferred form of exercise. Another challenge of staying healthy while incarcerated is having enough personal income to cover healthy commissary options along with medications and even medical visits. Incarcerated people are punished for not working, but when they do work, they earn minimal wages that end up going back to the prison in the form of medical visits and

personal hygiene; charging these people for necessities is another method prisons use to cut costs and prioritize the business side of their organization.<sup>2</sup> Charging for medical visits is extremely preventative and forces people to choose between their health and other basic needs. A third challenge of staying healthy while incarcerated is a lack of internet access and materials to learn about one's own medical conditions and health; health care providers in prison are also less likely to take the time (or have the time) to educate patients and are also therefore seen as less supportive than providers in the community. According to a formerly incarcerated person, on the quality of care they now have access to "Prior to prison I had wonderful medical care, and caring, helpful, professional [medical staff who] certainly listened to my issues, sufferings, and medical needs. I was given respect, time to speak, and serious treatment based on helping me, not just trying to shut me up and get me out of their office [...]. My access to medical treatment here in prison is fake. It's not real and every problem is fixed with Naproxen and a bandaid. I am disabled. I am denied medical help. I am denied my medications I was on when taken into custody of the federal government — forced to detox and suffer daily, treated like my conditions are fake, phony, or unimportant."<sup>6</sup> Staying healthy is difficult even while living in the community, and the prison system does nothing to improve on that. While this section focuses on the status of health in the prison system generally, the next section will home in on chronic disease management specifically to explore the unique challenges this population faces as they seek chronic care.

### **Chronic Disease Management in Prisons**

Healthcare overall in the prison system is underfunded, poorly organized, and does not prioritize the health and autonomy of patients it serves; this deficiency is

especially present in the population of incarcerated people with chronic diseases. In fact, prisons carry a higher burden of most chronic medical conditions than the general population, but have less infrastructure to support these patients.<sup>9</sup> Some of the high prevalence of chronic disease in prison can be explained by circumstances before incarceration (such as low education, high rates of smoking, adverse childhood experiences, housing and food insecurity) but prison itself could be driving this burden higher through factors such as poor nutrition, limited exercise, poor mental health, infectious disease exposure, high levels of stress and anxiety, and loss of supportive social ties.<sup>5,9</sup> One study found that incarcerated people have higher rates of hypertension, asthma, arthritis, cancer, and hepatitis, but comparable rates of diabetes, angina and myocardial infarction, while another study found that diabetes is also more prevalent in prisons.<sup>5,9,11,4</sup> Even with these higher rates of chronic diseases noted in several studies, they may still be underreported, as incarcerated people may be less likely to be screened or diagnosed with certain conditions.<sup>9</sup> There is clearly a higher burden of chronic disease among incarcerated people and the prison health system struggles to meet its needs.

Where the problem begins is at the transition of care from the community to the prison system – details are falling through the cracks. Upon incarceration patients may not have access to hospital records or be able to connect to the prison providers with their primary care physician in the community.<sup>12</sup> This creates an opportunity for information to go missing. In a nationwide survey, it was found that among incarcerated people with a persistent medical problem, 13.9% of federal inmates, 20.1% of state inmates, and more than 60% of local jail inmates had received no medical exam since incarceration.<sup>11</sup> A lack of medical monitoring was especially present in the jail system, as most local jail inmates

with a chronic medical problem requiring laboratory monitoring (about 60%) had not undergone a blood test since incarceration.<sup>11</sup> Not only were exams not performed, but 20% of incarcerated people were found to be already taking a prescription medication for some reason when entering prison, and of these inmates up to 26.3% stopped the medication following incarceration, showing a lack of dedication to continuing this chronic medical care by the prison health system.<sup>11</sup> Incarcerated people often enter prison without their needed medication and it can be an extended period of time before it can be verified with their PCP and a new medication dispensed.

Not only is the transition of care into incarceration difficult, but patients struggle to manage their new and previously diagnosed chronic diseases once incarcerated. Accessing providers within the prison system is difficult, patients are never given full autonomy in their care, and they are not taught effective self-management skills. Barriers to care in prison include prohibitive co-pays, long wait times, and poor patient-provider communication.<sup>13</sup> One patient recalls his challenges with accessing care in prison: “In five years of incarceration in Nevada, I have never seen a doctor in prison, despite being 64 and having multiple chronic medical issues. I interact with nursing staff at least twice daily when I get checked for blood sugar/insulin. However, nursing is horribly understaffed here. Getting timely refills of common medications is terribly difficult, nearly impossible sometimes.”<sup>6</sup> When trying to see a physician, patients are triaged, and the more emergent issues are prioritized, resulting in those needing maintenance visits often not being seen.<sup>13</sup> While this is an organizational problem within the prison health system, it also translates to how formerly incarcerated people view interactions with the healthcare system. These patients used to having their health conditions managed through

acute care processes even if it is for management of their chronic disease, because they are not used to having consistent follow-ups with physicians.<sup>13</sup> Upon release, they are more likely to use the emergency department for chronic care and are unaware of how to effectively manage their chronic disease.

Management is worsened by the fact that most prison health systems are understaffed and overworked – there is rarely time to get to patient education and nonemergent care, and this can foster a sense of mistrust between patient and provider. Additionally, medical providers also play a correctional role in the prison system, because they can sanction patients for issues like refusing to take their medications. This results in a breakdown of trust in the physician dash patient relationship. A patient shares his experience: “If you don’t get your meds, you get a ticket. So you got no choice but to go get the meds... it’s a routine for me ... because you get a ticket if you don’t.”<sup>13</sup> Being sanctioned for not taking medications also does not foster an internal motivation for managing one’s chronic disease, only an external one. Another patient describes their experience: “The medical units ... need more help...[T]hey need people in there to focus and teach them about their disease... You’re supposed to have checkups... They don’t got no “open door”, nothing in medical [clinics]. They don’t have no diabetes meetings, no blood pressure meetings, health seminars and stuff like that.”<sup>13</sup> Experiences like this are troublesome because self-management is such a large part of chronic disease management, but it is impossible to manage a disease you cannot learn about through your provider or the internet. This problem is even worse when a patient is faced with a new diagnosis, as approximately 40% of individuals are while incarcerated.<sup>14</sup> These patients have had no practice managing their condition outside prison conditions and

struggle with common tasks such as navigating a pharmacy system and administering their own medications.<sup>14</sup> Patients are not set up for success when they are diagnosed within prison walls because the tradeoff between security and patient autonomy is tipped toward security. This section narrowed in on the challenges of chronic disease management including the transition of care into prison, issues with access to chronic care while incarcerated and a lack of emphasis on self-management; the next section will use diabetes, a prevalent chronic disease in the US, to explore a poignant example of these hurdles.

### **Diabetes Management in Prisons**

Diabetes is one of the prominent chronic medical conditions in the United States, and one that requires consistent follow-up and preventative maintenance, patient education and disease self-management, and consistent medication access and administration. For that reason it is a perfect case study for where prison health struggles to support patients in their chronic health needs. Approximately 9% of the incarcerated population has diagnosed diabetes and as the incarcerated population ages, the prevalence of diabetes and its related complications will only continue to increase.<sup>15</sup> In 2018-2020, the incarcerated population accounted for 0.44% of the total diabetes disease burden, but only 0.15% of oral antihyperglycemic medication volume was distributed to prisons and jails, demonstrating a 2.86-fold difference between disease burden and medications provided.<sup>3</sup> This indicates a gap in diabetes care provided within prisons and nods at a lack of evidence-based practice, since oral medications are a large part of current diabetes management. Due to several of the challenges to chronic health management mentioned before, such as lack of access to healthy food and lack of medical education for patients,

managing diabetes in prison is exceedingly difficult. Diabetes requires special patient instruction on how to use machines such as glucometers, how to self-inject insulin if needed, and how to manage both low and high blood sugar readings. A patient shares his experience learning how to manage his diabetes in prison prior to release: “One of the major problems I had was, obviously they don’t give you needles in prison... so I never learned how to inject myself. They do give you like a crash course the day before you leave, but... they never gave me information on how much insulin I’m supposed to use compared to what my sugar is. I have insulin at home now and never used it, even when my sugar was high, because I don’t know how to do it...”<sup>13</sup> This patient is not alone in his experience.

To best understand the true failings of the prison system to work with incarcerated people to manage diabetes, we can follow in the footsteps of a hypothetical patient, Mr. DM. Mr. DM is a 40-year-old male with a past medical history of obesity and a family history of type 2 diabetes who is currently entering the prison system. He last saw his primary care physician 5 years ago and says he has “prediabetes” (A1C levels above normal but below the cutoff for diabetes at 6.5%). Luckily Mr. DM receives a screening test for diabetes upon incarceration and is found to have an A1C of 9% which now earns him a diagnosis of type 2 diabetes. Mr. DM goes to see the prison health providers, but since he has a chronic medical condition and not an acute emergency, his appointment keeps getting pushed off. As far as his diabetes knowledge, he only knows that he should try to “eat healthy,” but his options are limited while incarcerated, so he eats whatever he can. Weeks into incarceration, Mr. DM has an episode where he starts to feel lightheaded, excessively thirsty, and nauseated, and he ultimately loses consciousness and is found to

be in diabetic ketoacidosis, a preventable diabetic emergency of high blood sugar. He finally sees the providers in the prison clinic and is set up on a medication regimen that does include insulin. He receives a very brief education on his new condition and then is told just to come back for his medications as prescribed. He isn't taught how to self-administer his medications, how to manage his diet, what symptoms should concern him, and other important concepts that would allow him to manage his diabetes autonomously in prison and after. In this case, the biggest failings of the prison system are failure to act on the identified diagnosis of diabetes and failure to effectively educate Mr. DM on his condition. Because he cannot access the internet, Mr. DM can't even educate himself and must turn to the limited resources he has. Luckily, one of his incarcerated peers also has diabetes, and shares with him a resource from Prison Health News on how to manage diabetes while incarcerated.

Prison Health News (PHN) is a volunteer organization that responds to requests for health information from people in prisons and jails in the US, and will be discussed further in the next chapter, but their guidebook for managing diabetes while incarcerated outlines some important prison-specific education that can be useful for incarcerated people and would help Mr. DM improve his ability to self-manage. Their guidebook starts with explaining what diabetes is and what the risk factors are, which is something that might be easily breezed over in a the short time allowed for a health visit in prison. It explains what kinds of foods raise blood sugar, how to manage portions of different types of foods, and emphasizes the importance of checking nutrition labels, if possible, on commissary food. There is also a short and easy workout suggested that can be done in a small space for incarcerated people to try and stay active. Most importantly, there is a

section describing different diabetes medications, how insulin works, and signs of low and blood sugar. It finishes with routine maintenance associated with diabetes, such as foot care and eye screenings. Overall, the guidebook provides important information to allow incarcerated people like Mr. DM to take ownership over their diabetes and sets them up for success moving forward; it contains all the information they might need and can't always get from the prison health system. If he had been handed a guidebook like this upon diagnosis, he might not have gone into DKA and might have known how to advocate for himself in this scenario. The importance of patient education in diabetes cannot be understated; a small study in Spain found that there was a statistically significant decrease in weight, A1C, and diastolic blood pressure when they instituted a diabetes education workshop within a prison.<sup>16</sup> The workshop covered topics similar to the PHN guidebook: pathophysiology of diabetes, common medications, adapting diet and exercise to incarceration, and other maintenance topics such as foot care.<sup>16</sup> A larger study was also conducted in one correctional facility in the United States, which was focused on preventing diabetes (as it enrolled patients currently diagnosed with prediabetes, like Mr. DM).<sup>17</sup> This study implemented the Diabetes Prevention Program (DPP) which is a lifestyle modification plan that includes a certain amount of physical activity (among other educational-based changes). Incarcerated people who completed this one-year program showed significant improvement in weight and A1C.<sup>17</sup> These studies show promise that diabetes education while incarcerated can have benefits for patients.

Providing patient education materials like the PHN guidebook is just one part of what the standard of care should look like for incarcerated patients with diabetes, as

outlined by the American Diabetes Association in a 2024 statement. The first area of emphasis the authors discuss is timely diagnosis of diabetes and proper implementation of treatment upon incarceration and in the setting of transfer between facilities or release to the community.<sup>15</sup> The authors also emphasize the availability of proper nutrition and physical activity while incarcerated.<sup>15</sup> In concordance with the previous discussion, the authors emphasize treatment of “the whole person with diabetes,” meaning self-management education, health team support, and timely access to diabetes management tools such as blood glucose monitors and current evidence-based therapies.<sup>15</sup> Once again, the authors stress that the patient must play an active role in their diabetes care. While the importance of self-management for diabetes and other chronic conditions cannot be understated, it is hard to balance this need with the security requirements of prison that keep staff and incarcerated people safe. Adjusting self-management techniques to fall within these security measures is imperative, and training staff on these ideas is paramount. Improving diabetes care and overall chronic disease management in prison boils down to engaging the patient effectively and providing the bare necessities for their treatment. After exploring the example of managing diabetes in prison in this section, the next section will posit what prisons could be doing very right in the way of managing health and chronic diseases with the opportunities that they have.

### **What Prisons Should Be Doing Right**

Many of the challenges in maintaining good prison health are issues that, in theory, correctional facilities should be almost uniquely situated to handle, but this chapter clearly shows that they struggle with. One piece of data that stands out about prison health management is the high prevalence of treatable infectious diseases,

especially hepatitis C, which 18% of people in prisons have or previously had, hepatitis B (5%), HIV (3%), and tuberculosis (3%).<sup>8</sup> While being in prison does increase the risk factors for infectious diseases such as close contact with infected persons, in theory it should be relatively easy to distribute effective medications against these infectious diseases while patients are incarcerated. Working with the incarcerated population, it should be relatively simple to have consistent follow up, hold workshops for patient education, regulate environmental barriers to health, and maintain consistent health care access. Prison health providers truly have, for lack of a better word, a “captive” audience. This creates the opportunity for interventions against risk factors for chronic diseases as well as educational experiences.<sup>13,18</sup> Additionally, correctional health systems have much more access to information about their patients than providers do in the general public because they control many aspects of their lives. There are no transportation issues, missing appointments should be relatively rare, and continuity of care should be seamless because all patients belong to one practice.<sup>10</sup> With all of their patients within arm’s reach, why can’t prisons keep them healthy?

One possibility for improving health care in prison is the use of telemedicine and this has been studied in a few accounts. In a review of health interventions for incarcerated people or recently released people, telemedicine was one of the healthcare interventions that was associated with improvement in clinical and cost effectiveness.<sup>18</sup> Telemedicine, when used for follow-up care for patients with chronic non-communicable diseases, has the potential to improve health care availability, especially when the in-person prison clinics are understaffed.<sup>18</sup> It also has the potential to cut costs for the correctional facilities, which is undoubtedly a goal of theirs. While the exact cost benefit

of this is still being analyzed, other studies have shown an initial high cost of telemedicine implementation with a reduction over time, which is consistent with the literature, and that overall patients are largely equally satisfied with telehealth in place of in-person treatments.<sup>19</sup> However, implementing a telehealth system is an externally based solution to the problems with prison health, and the solution should really be found internally. Unfortunately, one challenge to improving healthcare access in prisons is funding; it is hard to convince policymakers that the limited state and federal funding should go to improving prison health care when the common view of incarcerated individuals is negative. Changing the public perspective on prisons as a place for punishment versus rehabilitation is an important step forward in this regard. Prisons have the access to their patients that should allow them to optimize the health care they receive while incarcerated. Just because these patients may have been found guilty of a criminal offense does not mean they should be stripped of their right to high quality healthcare.

## **Conclusion**

The United States has one of the largest prison systems in the world, and therefore has the responsibility of looking after millions of incarcerated people who each have unique health needs and requirements. The chronic disease burden in prisons is so high, and yet the delivery of care in this setting is abysmal. There is a blatant lack of patient autonomy in care and no emphasis on the importance of self-management, education, and individual motivation, all of which are important when managing chronic diseases such as diabetes. Patients struggle to gain access to health care providers, medications, and health information, perpetuating their health inequities and preventing them from actively

improving their health. In theory, prisons are in the unique position to provide holistic care for their patients, but in practice, the focus is on punishment.

## CHAPTER 2

### IMPACT OF PRISON HEALTH ON PUBLIC HEALTH

#### Introduction

As discussed in chapter 1, the United States has a large incarcerated population that carries a high burden of many chronic diseases and has to fight for access to high quality healthcare on a daily basis. One of the main challenges incarcerated people face is gaining access to health information (since they may not access the internet and the education provided by prison health providers is not always adequate) and therefore struggle to maintain health literacy while incarcerated. Cited in Healthy People 2020, health literacy is “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”<sup>20</sup> Health literacy is limited in the US in general, but incarcerated people face even more barriers, and it damages their ability to play an active role in their care. Furthermore, a lack of health literacy or disease self-management causes issues upon the transition from prison back to the community. The recently incarcerated population is a high-risk population that needs to be supported. Because most people who are incarcerated are generally released, their health becomes again part of the “public” health concern as they reintegrate into the community.<sup>21</sup> This chapter will focus on the health literacy concerns in the US and in US prisons, the challenges people face upon reintegration to the community, and how prison health is entirely public health and should be treated with the same level of gravity.

## **Health Literacy in the US and in Prison**

Health literacy is an essential attribute for many individuals as it allows patients to understand their health concerns, self-manage their medications and treatment, and advocate for their future needs. In addition to the definition provided above, it can be further categorized into personal health literacy: how well individuals can find, understand, and use information and health services to inform their decisions and actions, and organizational health literacy: how well organizations equitably enable individuals to do the previous.<sup>20</sup> However, health literacy is lacking in the United States as a whole, as 77 million Americans have difficulty obtaining quality care, maintaining healthy behaviors and using health services, and at least 88% of US adults have inadequate health literacy to navigate the healthcare system while one third have “low” health literacy.<sup>20,14</sup> This is a problem because being proficient in health literacy improves overall health, reduces the need to use medical services and thus decreases costs, and extends lives.<sup>20</sup> Furthermore, vulnerable populations such as older adults, those with limited English proficiency, and those with lower incomes and education attainment are disproportionately affected by disparities in health literacy.<sup>14,20</sup> People with low health literacy are more likely to take their medications incorrectly, require the use of acute care services like emergency departments, and have access to less preventative care.<sup>14</sup> One of the populations that struggle with health literacy is the prison population. This is especially true when considering the definition above requiring individuals to be able to “find” health information – in prison this is exceedingly challenging.

Mentioned in the previous chapter, Prison Health News (PHN) is a non-profit organization with the aim of improving health literacy in the incarcerated population by

providing access to health information in the form of direct correspondence, along with the delivery of a newsletter to subscribe to people. Prison Health News was founded by John Bell and Laura McTighe at Philadelphia Fight in 2003, with assistance from John S James of AIDS Treatment News, and is now an independent organization. PHN is the only resource that responds to requests for health information from people in prisons and jails everywhere in the United States, and it has a mission of lifting up the voices, experience and expertise of currently and formerly incarcerated people. By directly responding to health questions from incarcerated people, PHN works to decrease the inequity in health literacy that affects the prison population. Providing resources such as the newsletters and the diabetes guidebook mentioned in the last chapter gives incarcerated people the power to manage their own health, and it has been stated several times how important it is for the patient to play an active role in the management of their chronic disease.<sup>15</sup> one of the most challenging scenarios for patients to take control of their health is when they are diagnosed with the new condition in prison and are not able to access adequate information about it. Approximately 40% of individuals are diagnosed with a new chronic medical condition while incarcerated, and since they are not typically allowed to manage their own medications or use devices to monitor their conditions, they rarely are prepared to handle the conditions on their own.<sup>14</sup>

Not having access to sufficient health information while incarcerated does not set patients up for success upon return to the community. A study of people recently released from prison who were seen at a transitions clinic found that almost 60% of their sample had inadequate health literacy upon release.<sup>14</sup> Individuals with lower health literacy were on average older, reported three or more convictions as an adult, and had lower

educational attainment when compared with those with adequate health literacy.<sup>14</sup> They were also more likely to have a higher burden of chronic health conditions, which is a recipe for disaster.<sup>14</sup> Poor health literacy was associated with decreased confidence in self-administering medications after release and an increased likelihood of visiting an acute care service such as an emergency department before visiting primary care.<sup>14</sup> Health literacy is just one of the obstacles to adequate health care for incarcerated people upon release into the community. After exploring the many systemic and individual barriers to health literacy in US prisons in this section, the next section will focus on how this impacts the transitions of care from prison to the community, among other factors impacting this transition.

### **Transitions of Care from Prison to the Community**

The transition from incarceration to returning to the community is one that is challenging in many ways, but maintaining consistent high-quality care during this transition can be especially difficult. There are many barriers that formerly incarcerated people face as they reenter the general public. Most people who have been incarcerated will eventually be released, accounting for about 600,000 people per year, and they face a range of social economic legal and logistical barriers to reintegration.<sup>5</sup> Many return to the community without health insurance and with limited employment prospects; it is common to struggle to find housing, healthcare and other important resources which increases the vulnerability of this population.<sup>5,21</sup> Such a lack of resources puts the recently incarcerated population an increased risk of mortality. In a study based in Washington state prisons, during the first two weeks after release, the risk of death among formerly incarcerated people was 12.7 times that among general state residents of the same age,

sex ,and race, and it is unlikely that social determinants of health solely account for this difference.<sup>22</sup> There is a marked increased risk in death from things such as overdose and suicide, but there's also a slightly increased risk of death by some natural causes, particularly cardiovascular disease, liver disease, cancer, and HIV.<sup>4</sup> Older released incarcerated people noted a higher burden of medical and mental illness, with nearly 80% of this group reporting at least one chronic medical condition, and they were at increased risk for post release homelessness regardless of veteran (even though the VA, in theory, has guidance in place).<sup>21</sup> This transition is a delicate one that is not handled carefully enough by the prison health system.

There are several systematic issues with the transition from incarceration back to the community, but a few that stand out include a lack of communication between the prison health system and the community, issues with healthcare and health insurance access, and struggles with health literacy. Integration between the prison and public health systems is very poor and does not support the transition, especially for patients with chronic diseases.<sup>4</sup> While prisons are mandated to provide health care to people while incarcerated, there is no mandate for them to assist with discharge planning or coordination of care; community health systems may be willing partners in care coordination, but they face many challenges in communicating with the prison system, including difficulty navigating prison policies and the remote nature of prisons.<sup>23</sup> In addition to issues with continuity of care, it is also difficult for recently incarcerated people in many states to access health insurance. Most states terminate Medicaid, Medicare, and disability payments during incarceration, and while Medicaid expansions have taken the first steps in rectifying this issue, it still can take several months for

formerly incarcerated people to find health insurance.<sup>21</sup> Patients therefore must see health care providers on a self-pay basis, which is very cost prohibitive, and they must balance this with other basic needs such as housing, employment, and food.<sup>23</sup> Even if a recently released person has health insurance and has access to their health information, they may not know how to use it correctly due to struggles with health literacy. After spending time in prison without free access to information and without practice at self-managing chronic medical conditions, patients may find navigating the community-based health system to be difficult, especially if they were newly diagnosed with a chronic condition while incarcerated.<sup>13,23</sup> For example, recently incarcerated people are likely used to the acute setting of care, and therefore use emergency departments more often as the first line than primary care physicians. These patients are sent out of prison with almost no information or guidance on what to do next about their health.

Transitioning care from prison to the community is notably important for patient with chronic diseases, and it is important that they become quickly connected with a primary care physician if they are not returning to one. When patients with chronic diseases are returned to the community, they often have complex social service needs that supersede, in their mind, their health needs, and lack of engagement in primary care may contribute to poor health outcomes such as higher rates of hospitalization.<sup>23,24</sup> Few studies have investigated how best to connect formerly incarcerated people with a primary care physician. One such study was done through the Transitions Clinic Network, an organization that facilitates direct referrals from correctional agencies to primary care physicians within one month of prison release and helps clinics provide effective healthcare.<sup>23</sup> This prospective study of recently incarcerated patients with

chronic conditions found that direct referral to the Transitions Clinic Network by a correctional system partner was associated with fewer emergency department visits and hospitalizations in the first year after release, suggesting that direct connection from the prison system to primary care is beneficial to patient health.<sup>23</sup> Another study of a transitions clinic set in the Bronx found that 38% of subjects were retained in care at the clinic at six months following release, including 45% of those with at least one chronic disease.<sup>24</sup> However, for patients with hypertension and diabetes, a nationally representative sample indicates that approximately 50% of these patients should have their condition controlled, but for patients in this study with hypertension, only 35% had at goal blood pressure, and only two out of 14 patients with diabetes had reached hemoglobin A1C goals.<sup>23</sup> Additional interventions are needed to effectively engage and retain formerly incarcerated people in the community health system.

A few interventions which could improve the health of incarcerated people and their transition out of prison are emphasizing a principle of “normality” while incarcerated, putting together a supportive system for patients who are recently incarcerated, and having clinics partnered with major medical institutions that support this population. Unlike the United States, the Scandinavian prison system adopted the principle of “normality” for incarcerated people, meaning their punishment is only a deprivation of liberty and not a deprivation of typical lifestyle.<sup>5</sup> Incarcerated people are guaranteed rights such as education and healthcare, with the primary goals of imprisonment being accountability and rehabilitation. An example of this principle is that incarcerated people have access to on-site grocery stores with a wide variety of nutritious options, at which they can shop and then prepare their own meals much like they would

in the community.<sup>5</sup> This allows them to have autonomy over their diet and how it impacts their health, which is an important part of managing chronic diseases, and eases the transition back into the community after release. This idea of “normality” while incarcerated can be challenging for policymakers and citizens in the US to agree with; they might wonder what the point of incarceration is if not to punish. Overhauling this mentality of punishment versus rehabilitation is a hurdle that policy changes like this would have to overcome. However, addressing that incarcerated individuals are still humans and important members of society, while emphasizing their impact on public health, would be a good first step. “Normality” creates a place for rehabilitation and a crime-free return to the community, which should be the goal of all society. While In addition to making changes to the prison environment, it would also be beneficial to link correctional and community health care systems formally, possibly with a transitions clinic system.<sup>5</sup> Connecting formerly incarcerated people at these clinics with social support, such as housing, education, and employment assistance, would also provide holistic care for these patients. One possible way to begin expanding the transitions clinic structure is to partner these clinics with major health institutions and academic centers; this benefits both the patients by giving them access to care, and benefits the medical students, residents and fellows by gaining experience with this population. People being released from incarceration are facing enough difficulty, and they should not have to worry about coordinating care and balancing their health with other pressing needs. This past section focused on the difficulty of the transition from incarceration to the community, and the next section takes this a step further by exploring how reintegration into the community affects the health of our society.

## **Prison Health is Public Health**

While incarcerated people are technically removed from the “general population” when in prison, the majority of them return to the community at the end of their sentence, and therefore their health status while in prison and upon release is an important part of public health. As chapter 1 and 2 have both discussed, healthcare provided in prison leaves much to be desired, and the health of recently incarcerated people suffers as a result. This vulnerable population is released with unmanaged risk factors and chronic diseases such as obesity, hypertension, cardiovascular disease, and diabetes, not to mention the poor living conditions and lack of proper nutrition that compound their health status.<sup>2,10</sup> Healthcare access is limited while incarcerated and medical needs are not met, so when people are released, it strains their family resources, healthcare systems and the public health infrastructure as they try to reintegrate into society.<sup>2</sup> With a large percentage of incarcerated people coming from disadvantaged communities due in part to mass incarceration, their return to these communities in worse condition than they left only further strains the limited resources available to them.<sup>4,5</sup> The health of incarcerated people should therefore be a priority of public health planning. An example of an essential public health intervention that should at minimum be instituted at the federal level in the prison environment includes medications for opioid use disorder and syringe exchange programs to reduce harm from substance use disorders.<sup>5</sup> There are structural level changes that would also be beneficial to address the health impacts of mass incarceration; professional organizations have called for solutions such as large scale decarceration and massive reform of the prison system.<sup>5</sup> When individuals are released from prison, their health and well-being are closely connected to the broader community.

The harm they experience while incarcerated extends beyond them, affecting society as a whole and contributing to the health of the public.

## **Conclusion**

The high burden of acute and chronic disease among incarcerated individuals creates both significant challenges for the individuals and the system and valuable opportunities for improving healthcare. Delivering medical care in prison is uniquely complex due to security constraints, frequent transfers between facilities, and difficulty maintaining continuity of care upon release. Structural issues such as overcrowding and understaffing further limit access to care. Beyond these systemic barriers, individual issues also prevent many incarcerated people from receiving adequate care. Mistrust of the healthcare system and correctional officers, limited health literacy, and fear of stigma can all discourage people in prison from finding and using available services. Despite these obstacles, incarceration provides a crucial opportunity to address the unmet health needs of an underserved population, sometimes diagnosing chronic conditions or making connections to the healthcare system for the first time. Supporting the transition from incarceration to the community is also an essential part of care for this population.

Mass incarceration in the United States is a critical public health crisis with profound ethical implications. Prisons house one of the most vulnerable populations, many with significant health needs and chronic disease burden, as this work has expanded on. Once ready to return to the community, poorly executed transitions of care contribute to worse health outcomes, increased hospitalizations post incarceration, and higher recidivism. A comprehensive approach integrating correctional healthcare with community health systems is a necessity. Policymakers should work to ensure seamless

care transitions, expand Medicaid eligibility after release, and focus on improving partnerships between correctional facilities, primary care clinics, and public health organizations. From a bioethical standpoint, justice demands that all individuals, regardless of current incarceration status, receive equitable high-quality healthcare. Yet, systemic neglect and restricted autonomy over medical decisions while incarcerated are just the tip of the iceberg in terms of need for reform. Policy changes should include improved prison medical staffing and training, standard routine screenings for incarcerated individuals, and create a system better suited for chronic disease management. Investing in correctional healthcare strengthens public health and promotes equity. Addressing the health needs of incarcerated individuals is not just a matter of ethical concern; it is essential for building healthier communities and a more just society.

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