

New HIE Funding Opportunities for Corrections: Health Information Technology's Role in Reducing Mass Incarceration*

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Introduction

On February 29, 2016, the Centers for Medicare and Medicaid Services (CMS) released a “Dear State Medicaid Director” letter entitled, “Availability of HITECH Administrative Matching Funds to Help Professionals and Hospitals Eligible for Medicaid EHR Incentive Payments Connect to Other Medicaid Providers”.¹ This letter expanded the list of providers that could participate in the 90 percent federal matching rate (90/10) for state activities to promote health information exchange (HIE) for coordination of care — a major goal of the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009. The new expanded list includes correctional health providers. This addition is an acknowledgment that coordinating care of individuals cycling through the criminal justice is an important contribution in assisting eligible Medicaid providers in the community to meet EHR Incentive objectives of Meaningful Use, such as Medication Reconciliation. This letter recognizes the extent to which data about the health care provided in our nation’s correctional system has been relatively unavailable in the community.

Within a wider context, the inclusion of corrections in this federal program comes at an opportune moment. In July 2015, President Obama visited the Federal Correctional Institute, El Reno, in Oklahoma.² His visit called attention to a shift in the country away from mass incarceration towards justice reform — an issue that has strong bi-partisan support.³ CMS making HITECH funds available to corrections for HIE activities could signal a significant role for health information technology (IT) in the national push to reduce incarceration levels.

Professionals in corrections, both public safety officials and health care providers, have long recognized that mass incarceration is also a health care issue. The statistics are stark: of the 11.4 million people cycling annually through the nation’s jails,⁴ 80 percent have chronic medical conditions that have not been treated, 68 percent have substance use disorders,⁵ and close to 15 percent of males and over 30 percent of females have serious mental illness.⁶ Despite these high numbers, medical information is rarely accessible to correctional health care providers. Health care in corrections is often provided in a black box. Conversely, when someone is released from corrections and visits an emergency room, the primary source of health care for many indigent people, the community provider is faced with a similar dilemma to the one that the correctional provider faced: medical information is now siloed within corrections. Neither practitioner knows what medication has been prescribed to the patient on the opposite side of the boundaries of a jail or prison.



Sharing data across the walls of corrections with medical providers in the community through an HIE will help end the siloed nature of correctional health care, and this could help reduce recidivism. A 2014 article in *Health Affairs*, “Integrating Correctional and Community Health Care for Formerly Incarcerated People Who Are Eligible for Medicaid,” cites various studies that show an association between health care after incarceration and reduction in rates of recidivism.⁷ In addition, this article explains that a critical barrier to providing health care “is the lack of functional information exchange between justice settings and community-based health care systems.”⁸ With the new 90/10 funding, there would be more resources for HIEs to create the bridge between the two health care settings.

This connectivity would mean that, no matter what the setting, a provider could share health information by both querying and onboarding electronic health records (EHRs) to the HIE through interfaces built for this specific purpose. HIEs provide access to medical history, diagnoses, medications, immunization dates, allergies, radiology images, and laboratory test results. In addition, some HIEs can provide secure electronic messaging between individual providers to enhance continuity of care. Many local and state HIEs act as gateways to registries, which are particularly helpful in coordinating care for individuals with chronic diseases and taking proactive measures in providing care. Given the large number of individuals cycling through the criminal justice system and their poor health status, it is hard to imagine the effectiveness of a registry that does not include the health status of justice-involved individuals.

Despite the significant benefits, HIEs can be confusing for correctional institutions that are unfamiliar with sharing electronic health information, and this might make it difficult for them to take advantage of CMS’s 90/10 funding. Fortunately, there are examples of HIEs with which some correctional institutions have participated that can be used as guideposts. This issue paper will give institutions contemplating participating in HIE the chance to review existing options and choose according to their needs and constraints. The paper is organized by the types of HIE connectivity that correctional institutions have implemented or are considering implementing:

- Querying — querying patient health data from an HIE but currently not onboarding data to the HIE;
- Querying and Onboarding (Bidirectional) — querying patient health data from an HIE and onboarding data from the correctional institution’s EHR to the HIE;
- EHR-Centric HIE — using an EHR-centric HIE to share data between multiple providers on different installations of the same EHR;
- Direct — messaging providers through secure emails that employ the Direct protocol.

This paper will also discuss HIE options for behavioral health data. As noted above, a large percentage of justice-involved individuals have substance use disorders and mental illnesses. Many correctional institutions consider the ability to identify individuals with behavioral health issues just as urgent as or more urgent than identifying physical illness issues. In some instances, it will be seen that correctional institutions have implemented separate HIEs for physical and behavioral health

information. This bifurcation reflects the uneven integration of behavioral health information, not only in corrections but throughout health care nationwide.

After reviewing these various forms of HIEs, there will be a discussion about how similar implementations might take advantage of 90/10 funding. Since this topic is concerned with health information sharing, there will also be a brief overview of the Health Information Portability Accessibility Act (HIPAA) and of how each correctional institution discussed interpreted whether they needed to obtain consent to access health data from an HIE.

Querying

Perhaps the simplest technical way for a correctional institution to access information is by querying an HIE through a web browser-enabled portal. The benefits of an HIE portal are most apparent at medical intake when a person is newly incarcerated. Health care providers in corrections may have virtually no information about the underlying health conditions of an individual. Medications and life threatening conditions are often unknown. Frequently, the incarcerated person is not able to adequately describe their medical needs because they are intoxicated, confused, or illiterate. Querying an HIE can help provide critical and even life-saving information.

Both Camden, New Jersey, and the State of Delaware currently query HIEs through a web portal in order to retrieve the health information of incarcerated individuals. In the jail at Camden, New Jersey, the health providers use the web portal to the Camden HIE to locate health records of inmates who indicate that they have had medical procedures in the community.⁹ The data from the HIE is downloaded, printed, and attached to a paper chart. This information helps to reduce reduplication of services and in certain cases to initiate follow up procedures. While it does not currently have an electronic health record (EHR), the jail in Camden is in the process of installing a commercially available EHR, GE Healthcare's Centricity. The long-term goal is to implement a bidirectional interface between Centricity and the Camden HIE so that health information from the jail will be available to providers in the community.

Delaware has a combined correctional system where both jail and prison are housed together.¹⁰ The department of corrections developed its own EHR, I-CHRT. This EHR, however, does not communicate directly with the Delaware Health Information Network (DHIN). As in Camden, the providers in the DOC use a portal to the DHIN to query for records pertaining to inmates. The records from the DHIN are printed out, scanned, and attached to an individual's electronic health record in I-CHRT. In the first quarter of 2016, an upgrade to the EHR will include an interface with the DHIN so that queried data will be fed directly into the EHR. Again as in Camden, a bidirectional interface to onboard data from the I-CHRT to the HIE is anticipated.

Querying and Onboarding (Bidirectional)

Having access to health data external to corrections is valuable, but sharing details of the medical care that occurred while a person was incarcerated with community

providers is just as important. Continuity of care in both directions saves time and money. When a person is released back into the community, continuity of care could make re-entry more successful.

New York City; Pima County (Tucson), Arizona; and Fayette County (Lexington), Kentucky, have bidirectional connectivity with HIEs. These three examples demonstrate a great variety in methods of both querying and onboarding data to an HIE. They also reveal the state of flux of this technology, which sometimes necessitates modifications to underlying infrastructure or adjustments caused by external organizational changes. Additionally, it is important to note that community providers do not always share data with an HIE or with the same HIE that the correctional institution does, thus limiting the amount of data available for an incarcerated person.

The multiple correctional institutions throughout New York City have extensive experience with health IT.¹¹ In 2008 the Department of Health and Mental Hygiene (DOHMH), which manages all aspects of health care within the jail environment, began implementing a commercial EHR, eClinicalWorks (eCW) at Rikers Island, the main complex of correctional institutions in New York City.¹² In 2013, the DOHMH's technical staff began building a bidirectional interface between eCW and the Brooklyn Health Information Exchange (BHIX). This HIE was later absorbed by the Healthix, an HIE that receives data from hospitals in Manhattan, Queens, and Long Island.

There is clearly a strong technical infrastructure in New York City. One might expect that data flowing between jails and community providers through the Healthix would, by now, be a seamless procedure. This, however, is not the case. Despite the advanced achievements of the DOHMH, the data currently coming in from the Healthix is not proving to be as useful as hoped. The health data being retrieved is for the most part the data that the jail's EHR is onboarding to the Healthix. This is because the people cycling through New York City's correctional system often do not have community providers that contribute data to the Healthix. The majority of the contributions to the Healthix come from the jail providers themselves. Querying the Healthix produces results that largely duplicate data in the jail's EHR. As more community providers contribute data to the HIE it is expected that data being drawn down by providers in the New York City correctional system will have more of an impact on health care delivery. Later in this paper, during the discussion on behavioral health exchanges, there will be a discussion of how the DOHMH has found alternative ways to access pertinent health information through systems that do not replicate data the jail already possesses.

Turning to Pima County, in 2012 the health providers at the jail began using the portal to the Health Information Network of Arizona (HINAZ) during medical intake.¹³ The health data was downloaded into a continuity of care document (CCD) that was attached to the jail's EHR, CorEMR, a commercial product developed for the correctional environment. In 2014 the HINAZ, similar to the BHIX in New York, merged into another HIE and became formally affiliated with the Arizona Health e-Connection (AzHeC). In 2015, the technical vendor implementing HIE functionality for the AzHeC was changed. This modification created bidirectional connectivity, so

CorEMR could onboard data into the AzHeC. However, there is a bifurcated process for downloading health data into the jail's EHR. Medication data is directly integrated into CorEMR, but the strategy of downloading medical records into a CCD and attaching it to the EHR medical record is still used when more complete medical information is required.

The amount of data that becomes available upon connecting with an HIE can be difficult for correctional institutions to manage and process. With the newer technology underlying the AzHeC, only the last 90 days of a person's medical records are presented. Other date ranges can be entered for a more complete view.

Additionally, AzHeC has the ability to generate admission, discharge, and transfer notifications (ADT). Providers who are on the AzHeC network will not only be notified when someone goes to an emergency room or hospital, but also when that person has been incarcerated and when that person is released from custody. This type of notification is especially important for behavioral health providers who may not know why a patient has missed an appointment. Like New York City, Pima has implemented other systems for exchanging behavioral health information that will be discussed in the behavioral HIE portion of this paper.

Both New York City's and Pima's approaches to bidirectional HIEs were and continue to be greatly affected by the status of their local HIEs. They are sharing growing pains together with their respective HIEs. The Kentucky Health Information Exchange (KHIE), on the other hand, presented a more settled infrastructure for the jail in Fayette County (Lexington), Kentucky. KHIE is a statewide HIE that was neither merging with other HIEs nor changing its technical vendor.¹⁴ Nevertheless, the connection between the jail's correctional EHR, CorrecTek, and the KHIE was not automatic. In May of 2013, the idea of connecting the jail EHR to the KHIE was first broached. However, full connectivity between KHIE and the jail's EHR did not go live until April, 2015. The delays were due both to technical challenges and obtaining the approval of county counsel.

Similar to previous examples, the providers in the Lexington jail look up the data from the KHIE web portal, download CCDs, and attach them to the medical record in the EHR. Since a wide variety of providers throughout the state onboard data to the KHIE, the jail has access to medical records, labs, pharmaceuticals, and locations of x-rays. Since Lexington is a relatively small jail, accessing the KHIE at intake is not always needed because many people who are arrested are released within hours. However, if someone at intake is visibly ill or self-reports an illness, the data from the KHIE is especially useful in deciding whether to admit the person to jail or to have the police instead take the individual to an emergency room. Additionally, the jail's EHR onboards all of the data drawn from medical encounters that occur at the jail to the KHIE. Since someone can be incarcerated for up to 5 years at the jail, the medical information from the jail is very useful for outside providers once the individual is released.

Lexington also realizes that although the HIE offers a continuity of health data, this does not mean a continuity of health care. Without health insurance, an individual who is released cannot easily continue medication or see a provider. To address this

issue, the jail is acquiring a new jail management system (JMS), which will have an interface with state Medicaid. When an individual enters the jail, the suspension of Medicaid through the JMS will be automatic (since Medicaid is not available to incarcerated individuals). But, more importantly, when a person is released, the JMS will automatically lift the suspension. The significance of re-instating Medicaid automatically cannot be over emphasized. Jurisdictions, even in expansion states like Kentucky, find the gap that occurs in coverage after release leads to deterioration of mental states that often result in re-arrest.

EHR-Centric HIE

Many vendors of EHRs offer data-sharing functionality between different installations of their EHR thereby creating a *de facto* HIE for its customers. Of course for health providers who are not using the vendor's EHR, the HIE capabilities are not available. For a correctional institution, such EHR-centric HIEs might be considered problematic because in most communities there exist multiple EHRs and relying on data from one vendor could seem impractical. However, this is not always an issue. In Multnomah County (Portland), Oregon, roughly 80 percent of providers use Epic. This includes the public health department which provides care in the jail and in the safety net clinics. Furthermore, HIE functionality is available to Epic users through the Epic Care Everywhere product. Due to Epic's penetration rate in the community, the usual reservations that other providers in a jail might have about an EHR-centric HIE did not exist, and the public health department took advantage of the situation.

Unlike in other examples that have been discussed, there is no need to download data from an HIE portal and attach it to the jail's EHR record if there is an EHR that is predominant throughout the community. In these cases, the provider is presented with a unified medical record. With this type of infrastructure, concerns about HIE connectivity are reduced and emphasis shifts towards HIE benefits. In Multnomah County, the jail generates a chronic disease list report using Epic's data. The purpose of the report is to ensure that recommended tests and medications are being provided. The chronic disease list is also used to triage each person on the list for discharge planning. Depending on the person's health issues, the health department will match an individual to an appropriate clinic. For example, in the jail there are many people with tri-morbid conditions who are homeless. At release these individual are referred to clinics whose specialty is complex cases. The medical treatment from the jail is immediately available to the providers in the clinics since they, too, are using Epic.

In 2015, as a part of its Safety and Justice Challenge Initiative to Reduce Incarceration, the MacArthur Foundation provided a \$150,000 grant to Multnomah County to find community options for people incarcerated with mental illness, decrease racial disparities in incarceration rates, and decrease the need to incarcerate low risk individuals.¹⁵ But in order to achieve these goals, data is needed to understand who exactly is in the jail and why they are there. The data from Epic, therefore, plays a crucial role in this project. Epic's data is matched up with charges from the JMS and mental health data from the mental health department's EHR. By combining these layers of data to better understand the jail's population interventions can be better targeted. This is an exciting project not only because it

brings population health into criminal justice, but because it could demonstrate a link between health factors and justice involvement.

Direct

Direct was initiated in 2010 by the Office of the National Coordinator for Health Information Technology (ONC). It is essentially a secure email to transport health data. To participate, providers need to obtain an email address from a health information service provider (HISP), a private entity that routes Direct messages.

Direct is probably not the most optimal HIE solution for a number of aspects of correctional health care. At medical intake in high volume urban jails there is a severe time pressure, hence sending a Direct message to request information about an individual has several drawbacks. Many individuals booked into jail are intoxicated and uncooperative and are often admitted during the night. None of these factors are conducive to identifying a provider, retrieving an email address, sending a secure message and waiting for medical information to be sent back.

Nevertheless, some HIEs are very Direct-centric and Direct may be the only available option for a given correctional facility. Even though Direct may not be an optimal solution for medical intake in the jail, it could have other applications within in the correctional environment when immediacy is less of a factor.

Where Direct could be especially beneficial is in areas where the HIE infrastructure for querying or onboarding does not yet exist. For example, the rural Columbia Gorge region of north, central Oregon is currently planning to use Direct for its correctional services.¹⁶ The Northern Oregon Regional Correctional Facility (NORCOR), which is the jail for Wasco, Hood River, Sherman and Gillman Counties, is slated to become a member of Jefferson HIE, a HISP providing Direct messaging services. The original HISP in the region was Gorge Health Connect and was established in 2009 by the Health care leaders in the Gorge region. In early 2015, Gorge Health Connect merged with the Jefferson Health Information Exchange of southern Oregon, which gives it messaging access to providers in that part of the state. For the jail, this will provide the ability to access medical information from a wider geographic area and, thus, to achieve better continuity of care. Medication, diagnoses, allergy lists and recent medical histories will all be available to the correctional provider.

The technical vendor for both Gorge Health Connect's and Jefferson HIE's implementation of Direct is Medicity. On top of Direct, Medicity has built a system for managing referrals. This is a closed loop referral system: the provider who receives the referral needs to tell the referring provider if they have accepted the referral and also the status of the appointment (met, cancelled or rescheduled). Jefferson HIE is exploring whether probation or parole officers can take advantage of this system. A condition of probation or parole can be regular attendance at a class or treatment at a mental health clinic. Tracking of compliance is now through records of telephone communications, which is difficult to maintain and verify. The Medicity implementation provides an easily accessible record that a probation or parole officer can access to verify that mandated appointments are kept.

Although Direct does not offer the type of querying and onboarding functionality discussed in other HIE implementations, the planned implementation of Direct at NORCOR shows a widespread acknowledgement that no matter the type of health IT connectivity, corrections is an important component of a region's continuity of care paradigm. In fact, the inclusion of NORCOR within Jefferson HIE is not exceptional for this organization. Non-traditional health care settings like Head Start, mental health departments, and housing advocates are also being connected. In these implementations, Direct allows health care to be unbound from setting, and instead have an impact in multiple settings to address complex health needs.

Behavioral Health HIE

In an ideal world, behavioral health HIE and medical HIE would be unified. This is especially true for corrections considering how a large percentage of the individuals cycling through criminal justice have behavioral health disorders (a March, 2015 report by the Urban Institute found 56 percent of state prisoners, 45 percent of federal prisoners and 64 percent of jail inmates have a mental health problem).¹⁷ If ending mass incarceration and justice reform is to be successful, corrections will need access to behavioral health data in order to identify and treat (or divert) people with mental illness and substance use disorders. The "Dear State Medicaid Director" letter includes language that specifies that States may be able to claim 90 percent match for expenditures related to coordinating care of Eligible Providers with both behavioral health and substance abuse providers.

In Multnomah County, the mental health and public health systems have been combined but mental health is not included on Epic because it was too costly to switch record systems. Another reason is the 42 CFR Part 2, a regulation that strictly limits access to substance use disorder (SUD) treatment, due to the stigma and legal ramifications of accessing this information. Permission to view 42 CFR Part 2 data is specific to a provider, time limited, and revocable. Although there are no laws that prohibit electronic storage of 42 CFR Part 2 data, many HIEs cannot accommodate data that has such stringent requirements.¹⁸

Even with these barriers, some jurisdictions consider behavioral health treatment history to be important enough to implement behavioral HIE (excluding 42 CFR Part 2 data) or to otherwise use existing behavioral health record systems to inform care in the correctional setting.

Returning to Pima County (Tucson), Arizona, in 2014 the Pima County Justice-Health Data Exchange (PC-JHIDE) was implemented with a \$50,000 grant from SEARCH, the National Consortium for Justice Information and Statistics.¹⁹ The PC-JHIDE is used to identify individuals booked into the jail who have a behavioral health history in order to separate such individuals from the jail's general population. The jail management system at booking sends demographic information about detained persons to the system at the Regional Behavioral Health Authority (RBHA). The RBHA's system uses that information to search for behavioral health records and returns the information to the jail's EHR. The transferred data specifies if the person has a behavioral history and includes the name of the person's provider as well as the last time the provider was seen. This process is in real time. When the person is

evaluated at medical intake after booking, the health provider can see in the EHR if the person has had any behavioral health history.

If more funding becomes available, the county would like to extend the PC-JHIDE to pre-trial services. With the data from PC-JHIDE, pre-trial services will connect the individual to the person's provider and medication. The county would like to divert as many individuals with behavioral health issues out of the jails, since needless incarceration expends scarce county resources.

The PC-JHIDE's success has had a significant impact upon other projects in the county. Pima, like Multnomah, has received a Safety and Justice Challenge grant to reduce incarceration from the MacArthur foundation.²⁰ The Superior Court of Pima County, relying on the same underlying technical architecture of the PC-JHIDE, plans to build a data sharing system connecting all justice divisions. This new system will assist in diversion and discharge planning.

On the other side of the country, the jail in Monroe County (Rochester), New York, received \$50,000 dollar grant from New York State's Office of Mental Health (OMH) in 2015 to develop an interface between the jail's JMS and New York State's Psychiatric Services and Clinical Knowledge Enhancement System for Medicaid (PSYCKES).²¹ The new system is called Monroe County Jail Behavioral Health Correctional Department Summary (MC Jail BHCD Summary).

Each night, the MC Jail BHCD Summary sends a list of individuals newly booked in the jail to PSYCKES. The PSYCKES database includes records of all medical claims for the last five years (It should be noted that drug treatment is not included because of 42 CFR Part 2 restrictions). When matches between the JMS and the PSYCKES are identified, an auto-generated email, similar to an ADT message, is sent to providers whose patients are booked into the jail. In addition to sending this message to providers, the jail mental health providers also receive a list of people with PSYCKES matches. The jail mental health providers then contact the community providers to obtain records and information regarding their newly incarcerated client. This reduplication of notification is implemented to ensure that community behavioral health providers are aware of the location of their client and continuity of care is ensured.

Health information from these providers is used to develop a better treatment plan for the inmate. The data provided consists of progress notes, medications lists, and provider notes. Providers will either mail or fax the data. It is then scanned and stored in an electronic system with the person's biographical information.

One of the reasons that Monroe County Jail was selected for the OMH grant was because of its progressive mental health services. Although jails in New York State are allowed 14 days to perform a physical exam on incarcerated persons, the physical in Monroe County is targeted to be completed within hours of booking. Additionally, a multi-disciplinary team in the jail meets every day to determine the appropriateness of a person's housing when they are placed under constant supervision. Individuals are only removed from constant supervision if everyone on the team agrees that it is the best course of action. Each member of this multi discipline team has the power to

veto a move; consensus from all must be obtained. The health data derived from the MC Jail BHCD Summary and the interface with PSYCKES now helps inform these types of decisions.

PSYCKES also plays an important role in health care delivery in New York City. As noted above, when the Healthix HIE is queried, the data returned is often just the data from the previous encounter at the jail. DOHMH has realized that access to data from PSYCKES claims offers providers in the jail another path to external health data. Along with mental information, PSYCKES includes physical health claims. However, unlike in Monroe County, an interface between the JMS and PSYCKES has not been built. For individuals who have already been diagnosed with a mental illness and have Medicaid, consent is obtained to access health data directly from the PSYCKES system. The consent is logged into eCW, the jail's EHR, and the information from PSYCKES is stored in the eCW's folder for external documents.

DOHMH actively encourages mental health providers in the jail to access this data. In eCW, a mental health and discharge planning template has been developed to document when providers are accessing PSYCKES data. Providers need to indicate if PSYCKES information was available, and if it was, whether or not the provider reviewed it and added relevant information to the PSYCKES data. DOHMH runs reports on these questions to find out how people are using this system. They are finding that 85 percent of providers are using the PSYCKES information.

In both Monroe County and New York City, it must be emphasized that the data from PSYCKES is claims data. This is traditionally not considered to be medical records data. However, the information within claims can give a very accurate picture of a person's health status as it reflects not only encounters across provider categories but also labs and medications. It is a testament to each jurisdiction that they understand how important behavioral health is and that they are willing to explore different ways to access this information. By thinking outside the box, other jurisdictions could follow these examples when the HIE is unavailable or community providers of justice-involved individuals are not as of yet sharing data with the HIE.

90/10 Funding

As was noted, many of the jurisdictions and providers received various grants for their projects. These resources were indispensable for the HIE projects. The 90/10 funding opens up resources for other jurisdictions to pursue HIE projects that might otherwise not be possible.

The examples described above will, hopefully, offer templates for the best ways to proceed in specific contexts. While not all the HIE examples, if they were to be implemented now, would meet the criteria for the federal matching funds, most would. Querying for health data, onboarding data, messaging providers, and using HISP provided directories are all within the scope of the 90/10 funding as described by the "Dear State Medicaid Director."

Categorizing the examples by these criteria, the projects in Camden and Delaware fall within the HIE querying category. PIMA's PC-JHIDE could also be considered a

form of querying to obtain behavioral health history. Even New York City's use of the PSYCKES system might qualify. Pima's, New York City's, and Lexington's interfaces with their respective HIEs meet the requirements for both the querying and onboarding of data. Although an EHR-Centric HIE might be out of the bounds for 90/10 funding, because the data is confined within a single EHR, there is no reason why a public health department like Multnomah County could not extend data sharing to another HIE and take advantage of the 90/10 funding. In addition, the "Dear State Medicaid Director" letter explicitly mentions connections to public health systems meeting Meaningful Use measures focused on public health reporting. The Columbia Gorge use of Direct would fall under the category of messaging using a provider directory and so might Monroe County's system of querying the PSYCKES system to notify behavioral health providers on client's incarceration.

To pursue these opportunities, correctional institutions should work with their state Medicaid agency in order to best access these funds. It is possible that a state Medicaid agency has never considered corrections within an HIE paradigm. The CMS's announcement and this paper could help a state Medicaid agency understand the type of HIEs eligible for funding and the value of HIE connectivity to corrections and to the community. Jails can also discuss with their state Medicaid Agency using intergovernmental transfer (IGT) funds for the 10 percent state share.

HIPAA and Consent

It is also important for correctional institutions contemplating HIEs to understand when consent is needed to share medical information. When providers share care, HIPAA allows providers to access patient health care data without consent for treatment purposes.²² HIPAA also has specific language for correctional institutions that permits access to health data without patient consent for a number of reasons: (A) the provision of health care; (B) the health and safety of the inmate or other inmates; (C) the health and safety of correctional institution personnel; (D) the health and safety of those personnel responsible for transporting or transferring of inmates; (E) law enforcement on the premises of the correctional institution; and (F) the administration and maintenance of the safety, security, and good order' of the institution.²³

No matter what HIPAA may allow, correctional institutions often decide that they need to get consent from incarcerated individuals to access health data. Providers external to the jail will often demand that consent be obtained, citing HIPAA restrictions. In addition, organizations implementing HIEs often have a uniform consent policy for all participants. Understanding consent is therefore challenging. The examples discussed here have all confronted the consent issue. Their policies range from always asking for consent to not asking for consent, with variations in between.

Delaware, Monroe County, Camden, NORCOR and Lexington all seek consent to access health data from their respective HIE. However, in a medical emergency, jurisdictions may access information without consent.

New York City is a hybrid case. DOHMH asks for consent but maintains that it has the right to access medical information without consent. This position reflects DOHMH's

intention to coordinate care with Accountable Care Organizations and Health Homes. To coordinate care, DOHMH will need to access health data when a person is no longer incarcerated and that access requires consent.

Pima County accesses health information without consent. In Arizona, a state law exempted inmates from the requirement to give consent to access health data from the statewide HIE.²⁴ Since the public health department in Multnomah County supplies the health care on premises, the jail is considered a clinic from the department's perspective. As such, consent is not required because the public health department is just sharing care between their own clinics, which includes health services at the jail.

All of these consent policies take time to formulate because they require coordination between the correctional institution and an HIE that is external to it. As with state Medicaid agencies, HIE organizations may be unfamiliar with corrections. The 90/10 funding could act as an impetus for HIEs to become familiar with the correctional environment. There will, of course, be specific challenges and opportunities in each environment, but this process is part of correctional health emerging from its silo and fully embracing a continuity of care paradigm.

Conclusion

A few years ago, it seemed as though very few people were interested in criminal justice. Following the president's visit to a federal prison in July and the growing bipartisan support for justice reform, corrections is becoming an increasingly prominent and significant component of the domestic policy landscape. This emphasis on justice reform is drawing the attention of commentators not necessarily associated with criminal justice. Recently, in an opinion piece on the Brookings website, it was proposed that just as hospitals are now "facing a fine called a re-admission penalty", prisons should also face some type of reduction of funding if an individual recidivates.²⁵ Whether this tactic is workable or desirable is debatable. What is important about this proposal, however, is that an outside observer is beginning to realize that there are similarities between health and criminal justice. The examples in this paper show that many in corrections understand that this is more than just a superficial resemblance and that corrections, criminal justice, and health care are intricately entwined. Some institutions and providers have made the next logical step by implementing health IT to manage the health issues, both physical and behavioral, of incarcerated people. Establishing electronic connectivity to share health data between providers in corrections and the community is a significant development that might help address health issues leading to incarceration and recidivism.

A final note: criminal justice is complex. It cannot be the responsibility of corrections alone to lower the populations behind bars. Police, courts, juries, prosecutors, public defenders, probation officers, politicians and policymakers all play significant roles in who is incarcerated and for how long. Health IT is a tool that can, in certain instances, help reduce incarceration where health issues are involved, but it is only a tool. It is crucial to create an infrastructure of cooperation between parties in both criminal justice and health care in order to understand how best to use this tool. The

examples cited throughout this paper show how robust this cooperation can be. The success of this cooperation, together with the new 90/10 funding, should hopefully make such coordinated efforts even more widespread.

Endnotes

¹ See: <https://www.medicaid.gov/federal-policy-guidance/downloads/SMD16003.pdf>

² See: <https://www.whitehouse.gov/photos-and-video/video/2015/07/16/president-obama-visits-el-reno-federal-correctional-institution>

³ See: <http://www.cnn.com/2015/07/22/opinions/jones-leonard-criminal-justice-reform/>

⁴ See: http://www.bis.gov/content/pub/pdf/iim14_sum.pdf

⁵ Substance Abuse and Mental Health Services Administration. (2003). Results from the 2002 National Survey on Drug Use and Health: National Findings (Office of Applied Studies, NHSDA Series H-22, DHHS Publication No. SMA 03-3836). Rockville, MD.

⁶ Substance Abuse and Mental Health Services Administration, Results from the 2012 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-47, HHS Publication No. (SMA) 13-4805. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013.

⁷ Kavita Patel, Amy Boutwell, Bradley W. Brockmann, and Josiah D. Rich, "Integrating Correctional And Community Health Care For Formerly Incarcerated People Who Are Eligible For Medicaid", Health Affairs, March 2014. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4028698/>

⁸ Ibid

⁹ Information on HIE in the Camden County Correctional Facility is based on interviews and correspondence with Abigail Fallen, Senior Program Manager, Camden Coalition Health Information Exchange (HIE); Christine McBride, Program Assistant, Health Information Exchange Program, Camden Coalition of Healthcare Providers; Patti James, Health Service Administrator, Camden County Department of Corrections; and Crystal Townsel, Director of Nursing, Camden County Department of Corrections.

¹⁰ Information on HIE in the Delaware Department of Corrections is based on interviews and correspondence with Chris Devaney, Chief Operating Officer, Connections Community Support Programs. Connections Community Support Programs of Wilmington, Delaware is the health provider for the Delaware Department of Corrections.

¹¹ Information on HIE in New York City's Department of Corrections is based on interviews and correspondence with Michelle Martelle, Senior Director of Health Information and Insurance, Correctional Health Services, Correctional Health Services, New York City Department of Health and Mental Hygiene; and Richard Stazesky, Executive Director at NYC Department of Health and Mental Hygiene.

¹² Richard Stazesky, Jennifer Hughes, and Homer Venters, MD, New York City Department of Health and Mental Health, Implementation of an Electronic Health Record in the New York City Jail System. Available from: <http://cochs.org/files/hieconf/implementation-ecw-new-york.pdf>

¹³ Information on HIE at Pima County Adult Detention Complex is based on interviews and correspondence with Spencer Graves, Special Staff Assistant at Pima County Health Department and Sarah Davis, Special Staff Assistant at Pima County Health Department.

¹⁴ Information on HIE at the Fayette County Detention center is based on interviews and correspondence with Rodney Ballard, Director of Detention.

¹⁵ See: <http://www.safetvandjusticechallenge.org/?s=Multnomah>

¹⁶ Information on HIE for is based on interviews and correspondence with Coco Yackley, Operations Consultant, Columbia Gorge Health Council.

¹⁷ Available from: <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/2000173-The-Processing-and-Treatment-of-Mentally-Ill-Persons-in-the-Criminal-Justice-System.pdf>

¹⁸ There are some HIEs that do include 42 CFR Part 2 data. For example Rhode Island's statewide HIE, CurrentCare, includes 42 CFR Part 2 data and meets all the consent requirements of that regulation. The KHIE is working with NetSmart, a behavioral health EHR, to meet the requirements of 42 CFR Part 2 data. In that implementation, all behavioral health data will follow the consent requirements of 42 CFR Part 2. The ONC

sponsors the Standards and Interoperability Framework collaborative. One of its initiatives, the Data Segmentation for Privacy, included projects specifically addressing the management of 42 CFR Part 2 data. See: <http://wiki.siframework.org/DS4P+VA-SAMHSA+Pilot>

¹⁹ See: <http://cochs.org/files/HIT-paper/technology-continuity-care-nine-case-studies.pdf>

²⁰ See: <http://www.safetyandjusticechallenge.org/?s=Pima>

²¹ Information on HIE at the at the Monroe County Jail is based on interviews and correspondence with Ron Harlin, Monroe County Jail Superintendent; Nadly Thompson, Monroe County Jail Mental Health Director; and Christine Ross, Monroe County Jail Health Service Administrator.

²² See: http://www.hhs.gov/ocr/privacy/hipaa/faq/right_to_request_a_restriction/512.html

²³ 45 CFR sec 164.512

²⁴ See: <http://www.azleg.state.az.us/FormatDocument.asp?inDoc=/ars/36/03801.htm&Title=36&DocType=ARS>

²⁵ Samuel M. Butler, "How hospitals could help cut prison recidivism", Brookings, August 18, 2015. Available from: http://www.brookings.edu/research/opinions/2015/08/18-how-hospitals-could-help-cut-prison-recidivism?hs_u=bbutler@cochs.org&utm_campaign=Brookings+Brief&utm_source=hs_email&utm_medium=email&utm_content=21499660&_hsenc=p2ANqtz-_vTmujKoqnsmwWEswCODJJWH37IFz_Or_tDfpM-ilkVv2vFE2syoqmGVIGlpStk_cG1rASQelabgMK7XV0orok8wPTNg&_hsmi=21499660

* On May 31, 2017 ECW settled with the Department of Justice for \$155 million dollars in reference to False Claim Acts. See: <https://www.justice.gov/opa/pr/electronic-health-records-vendor-pay-155-million-settle-false-claims-act-allegations>

The issues in electronic health records may not be unique to ECW. See: https://californiahealthline.org/news/death-by-a-thousand-clicks/?utm_campaign=CHL%3A%20Daily%20Edition&utm_source=hs_email&utm_medium=email&utm_content=70870915&_hsenc=p2ANqtz-87gkmW9kuo3onBOFIIn7RNTg5O201lvK87PetTofBG_4VEC7agEnWFNWLW4p1308gc5drHwr1hJBmaHiPg7noquDmbIHg&_hsmi=70870915