

## Health Information Technology and the Criminal Justice System

**Advancing health information technology (HIT) is a key component of national healthcare reform efforts to improve the effectiveness and efficiency of delivery systems through better information sharing. By enhancing the ability of justice agencies and community healthcare providers to communicate, HIT can lead to more efficient and better coordinated healthcare, significant cost savings to health and justice agencies, and improvements in both public health and public safety.**

### What is health information technology?

Health information technology (HIT) encompasses a range of products and services—including software, hardware, and infrastructure—that enable the electronic collection, storage, and exchange of patient data. The goal of HIT is to increase the capacity for a patient’s clinical information to flow seamlessly between treatment providers working in different settings, inform clinical decision making by supplying timely access to accurate information, and empower patients by giving them more control over their own health information. It can also improve the administrative aspect of healthcare delivery by improving workflow efficiency and clinical documentation to support appropriate billing.

### How is electronic health information used?

Converting paper medical records into a digital format can greatly increase the capacity for information sharing and may take a number of forms. This section defines some important terms describing technologies that can facilitate information sharing between health and justice systems.

- > [Electronic Medical Records](#) (EMRs) refers to both a patient’s computerized medical record and the software system used to create, modify, and maintain these records. EMRs are digital versions of case notes on a patient’s medical history. Providers can use EMRs for diagnosis and treatment. While EMRs can greatly improve workflow and service provision within one hospital, clinic, or correctional facility, they generally operate within a single organization and are not designed to connect with providers across treatment settings.
- > [Electronic Health Records](#) (EHRs) have the most potential for information sharing, as they allow providers to store and retrieve patient information over time and across care settings. EHRs are patient-centered records that follow people as they receive treatment in different places. The primary value of EHRs is that authorized providers and staff across health care organizations can create, manage, and access them. A person’s EHR can include information from current and previous doctors, hospitals, community clinics, pharmacies, laboratories, and correctional health services.

- > [Personal Health Records](#) (PHRs) contain the same information as EHR/EMRs, but allow people to independently access and manage their records outside a treatment provider's office. PHRs typically include features that allow patients to review recent test results, renew prescriptions, schedule appointments, and contact healthcare providers.
- > [Health information exchanges](#) (HIEs) act as clearinghouses for clinical information, connecting multiple treatment providers at a regional and state level. By allowing multiple treatment providers who use incompatible proprietary information systems to share data in a variety of formats, HIEs enable electronic sharing of health-related information across organizational and jurisdictional boundaries. The goal of an HIE is to provide healthcare organizations access to important clinical information about a patient from across a network of healthcare providers to inform clinical decisions and administer services more efficiently. For example, a clinician working in a community healthcare setting could access diagnostic, treatment, and prescribing information from all participating hospitals, clinics, and other healthcare settings that have dealt with a patient. Treatment and administrative organizations can join an HIE by signing a contract that outlines the type of data that is shared. Once they join the HIE, they typically use a log-in portal to retrieve information submitted to the HIE by other providers in their network.
- > [Telemedicine](#) refers to the use of electronic communication and information technology to provide or support clinical care to remote areas that might otherwise not have access to an adequate range of health services. Telemedicine can make a critical difference in healthcare access, especially in rural areas where the patients may live many miles from the nearest healthcare provider.

## Telemedicine in Wyoming

In Wyoming, where 75 percent of the population lives in rural communities or small cities with between 2,500 and 50,000 residents, state policymakers recognize that telemedicine is an essential tool for extending primary care, specialty care, and mental health services to people living in remote areas, including four state prisons.

Wyoming lawmakers established the Telehealth Consortium—a partnership among hospitals, physicians, and government agencies, including the Office of Chief Information Officer (OCIO) and Department of Corrections (DOC), and the Wyoming Health Information Organization (WyHIO)—with the mission of “facilitating the operation of a statewide interoperable telemedicine/telehealth network using existing internet protocol based communication and videoconferencing infrastructure and telecommunication services to the extent possible.”

[Click here](#) to read the Telehealth Consortium's annual report.

## Why is HIT a good investment for justice systems?

- > **Jails and prisons as healthcare providers.** HIT can improve health services in correctional settings in similar ways that it does for many hospitals and community clinics. On any given day there are more than two million people held in U.S. prisons and jails who rely on these facilities for their healthcare. Large city jails and prisons can serve the same number of people as a medium-sized hospital, often having their own clinics, labs, and pharmacies on site. For instance, each year healthcare providers working in the New York City jail system conduct nearly 750,000 medical and mental health visits and write more than 600,000 prescriptions.

As with people entering emergency rooms or acute care clinics, those booked into jails are often in a state of distress and commonly experience symptoms of unmet health needs. And the work of a patient discharge planner in a hospital developing continuity-of-care plans for patients who are returning home is analogous to transitional planning/reentry case-managers in jails and prisons. Professionals working in both of these environments can use reliable health records as a tool for linking their clients to appropriate services that keep them healthy and provide the support and treatment that they need in the community. A standardized record system can offer quicker access to reliable and comprehensive information on health needs and prior health system contact, improving the quality of treatment decisions, providing a reliable referral mechanism, and reducing the risk of erroneous treatment and/or prescribing decisions.

## What benefits can justice systems realize using technology designed for healthcare settings?

- > **More effective connectivity with community support networks.** Correctional health is an under-recognized and disconnected component of the safety-net healthcare system. The use of paper health records in jails, prisons, courts, and community corrections exacerbates this problem because it limits the capacity for communication with healthcare providers working in other settings. Investments in HIT can help link criminal justice agencies with the resources that exist in the community, promoting a model of continuous healthcare that does not lapse when someone enters or leaves a jail or prison. By improving access to essential behavioral healthcare, HIT can help address the mental health and substance use problems that lead many people into contact with justice systems.
- > **Improved quality of correctional healthcare.** If implemented correctly, EHRs can improve quality of care by increasing coordination, limiting unnecessary testing, lowering and containing costs, and decreasing medical errors, misdiagnosis, and other problems resulting from incomplete or illegible paper records.
- > **Enhanced opportunities for diversion.** Electronic health information can be used to verify a person's health needs before or immediately upon entering the justice system, thereby increasing opportunities for diversion or treatment alternatives to incarceration by providing timely access to accurate information on mental health or substance use needs.

- > **Smarter reentry planning.** It is well-documented that the first few weeks following release from incarceration is a period when people are susceptible to a range of health risks. Electronic health records are valuable tools to help treatment providers working in the community support people as they return home from jail or prison. The reliable transmission of important health information from correctional to community settings allows community-based providers to improve health outcomes for people returning from incarceration. For people with mental health and substance use problems, continuity of care that addresses behavioral health needs can significantly reduce the risk of recidivism.
- > **More comprehensive insurance coverage for transition planning.** The Affordable Care Act (ACA) requires local governments to develop strategies for enrolling vulnerable populations into health insurance plans and coordinated care. Jails can identify and engage under-served populations in health services. Transition planners can use EHR systems compatible with other electronic systems to manage applications for social benefits to ensure people have the necessary support when transitioning back to a community setting after incarceration. For example, Connecticut has created an interface between its jail management system (JMS) and the state's health insurance exchange (HIX), which allows demographic data from JMS to be electronically incorporated into a Medicaid application as a way of helping ensure that people have health insurance when leaving corrections settings.
- > **More cost-effective provision of treatment.** Between 9 and 30 percent of total corrections costs are allocated to healthcare for people in correctional facilities, depending on the jurisdiction. Increases in correctional healthcare costs are the result of several factors, including an aging incarcerated population, rising pharmaceutical drug costs, the prevalence of mental illness, and widespread need for substance use treatment. The need to control spiraling healthcare costs has prompted correctional systems to look for new models for managing healthcare services, including the use of standardized record systems.
- > **Better jail intake process.** Many correctional health EHRs are designed to interface with jail and prison management systems. By making detailed information on prior diagnosis and treatment accessible at booking, EHRs can help intake staff triage people to the appropriate health services and housing units.
- > **Improved sick call system.** HIT is currently used in some jails and prisons to manage inmate requests for healthcare. Inmates can use kiosks or phone systems to contact a sick call system and make appointments with medical staff.
- > **Reliable clinical decision making.** EHRs can ensure that treatment providers have appropriate and accurate client information at the right time to inform clinical decisions. Many EHRs come with features that provide clinicians with important clinical decision-making tools; such as alerts about medication allergies or side effects, or suggestions for treatment regimens based on clinical history.
- > **Greater compliance with legal and ethical obligations.** Jails and prisons have a legal obligation to provide people in the facilities with healthcare that is comparable to community

standards of treatment. HIT can help correctional institutions enhance the quality of care by reducing medical errors, strengthening clinical decision making, and documenting service provision.

- > **Increased patient support.** Individual health records are transportable and accessible across communication networks. Therefore, patients have greater access to their personal health information as they move between providers, their data is less likely to get lost, and there is less opportunity for medical errors.
- > **More robust capacity for data-driven policy.** Agencies can compile datasets to perform analyses for reporting and policy-making purposes and evaluate programs' effectiveness.

### What are some of the concerns with the use of electronic health records in correctional settings?

- > **Privacy.** Concerns are frequently raised about the potential for EHRs to lead to security breaches, misuse of data, and loss of patient control over information. However, with proper controls on access and comprehensive policies that govern their use, EHRs can be more compliant with privacy laws and secure than paper records.
- > **Costs of implementation.** There are significant costs associated with installing, managing, and maintaining electronic record systems. Technical assistance, licensing fees, and the need to provide training to correctional personnel can all present barriers to implementation. Nevertheless, while investing in HIT is expensive in the short term, it can improve efficiency and yield long-term savings.
- > **Connecting with legacy data systems.** It is important to select an EHR that has the ability to connect with or supplement data systems that are currently in use. In some cases, it may be necessary to upgrade computer hardware and networks before introducing EHRs into a correctional setting.
- > **Challenges integrating physical and behavioral health information.** Substance use and mental health treatment providers typically rely on less well developed information systems when compared to those used by general healthcare practitioners. Although EHRs are designed to span disparate information systems, there may still be connectivity issues between physical and behavioral healthcare providers.

## What are the factors to consider if my agency is thinking about moving from paper to electronic healthcare records? How do I select a vendor for electronic health records?

There are a number of companies, such as [e-Clinical Works](#), that market electronic health record systems, and several that have designed EHR systems tailored specifically to correctional settings. There are a few factors to weigh when selecting an EHR vendor:

- > **Does the EHR enhance interoperability?** A very important factor to consider is whether the technology you select enhances [interoperability](#)—the ability to conduct electronic information exchange within and across other systems.
  - *Will the EHR be able to connect to existing information systems within your agency?* You should be sure that the EHR product you choose has the ability to interface with existing data management systems in your facility. Exchanges between EHR and existing systems can help avoid duplicative data entry, increase efficiency, and ensure that both systems have up-to-date information on demographics, medical history, and custodial housing assignment;
  - *Will the EHR be able to connect with community systems?* Additionally, it is important to ensure that the technology you choose uses technical standards that are capable of interfacing with treatment providers in your community.
- > **Is the EHR certified?** Purchasing an EHR that has been certified by the Certification Commission for Health Information Technology (CCHIT) as meeting the requirements of “meaningful use” will maximize the potential for interoperability and information sharing. The Office of the National Coordinator for Health Information Technology (ONC) [maintains a list of EHRs certified by CCHIT](#).

## Are correctional health providers eligible for financial incentives for using electronic health records?

- > [The Medicaid EHR Incentive program](#), in the HITECH Act (2009), includes financial incentives for eligible healthcare providers demonstrating “[meaningful use](#)” of EHRs caring for patients covered by Medicaid. Payments can be used to support adopting, implementing, or upgrading EHR technology. Providers can receive annual payments if they continue to demonstrate compliance with current meaningful use standards.
- > As of 2012, correctional health providers are eligible for incentive payments if: (1) at least 30 percent of their patients are *enrolled* in Medicaid; and (2) they adopt an EHR that is [certified by ONC](#). More providers practicing in jails and prisons are likely to satisfy the 30 percent Medicaid enrollment requirement following implementation of national health reform; especially in states expanding Medicaid coverage in accordance with the Affordable Care Act that also “[suspend](#)” [rather than terminate](#) Medicaid coverage upon incarceration.<sup>1</sup>

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<sup>1</sup> Before August 2012, providers practicing in correctional facilities were not eligible to receive EHR incentive payments. The old rule required providers to have 30 percent of their patient volume to include encounters *paid* by Medicaid, and therefore

## Electronic Health Records in Jails and Prisons

An increasing number of correctional systems are converting paper records into digital format in an effort to improve the effectiveness and efficiency of healthcare delivery and enhance connectivity with community health systems. Below are examples of jurisdictions that have successfully adopted EHRs.

- > **Rhode Island.** The Rhode Island Department of Correction (RIDOC) introduced an EHR to manage health information across its seven correctional facilities. According to RIDOC staff, the technology has become a vital component of the state's correctional health delivery system that streamlines communication among medical, behavioral health, and dental staff. The EHR maintains a chronology of all healthcare admissions, diagnostic tests, and other events related to patient care. [Read](#) how RIDOC identified the core requirements of its EHR, selected a vendor, and developed a records system tailored to its needs and case flow.
- > **Kentucky.** Since 2004, the Kentucky Department of Corrections (KyDOC) has been using an EHR in its 13 state-operated prisons, and the department is currently planning to upgrade the system in accordance with meaningful use standards for EHRs promulgated by the Office of the National Coordinator for Health Information Technology (ONC). These changes will enhance the ability of KyDOC to communicate with treatment providers in the community that employ EHRs using similar standards. [Click here](#) to read a "positive but cautionary case study of how users assess components of an EHR in a relatively stable and controlled organized setting."
- > **New York City.** In 2008, the Bureau of Correctional Health Services (BCHS) of the New York City Department of Health and Mental Hygiene implemented an EHR, e-Clinical Works. [Click here](#) to read an article written by members of BCHS about their adoption and use of e-Clinical works to provide health services to people held in the nation's second-largest jail system.

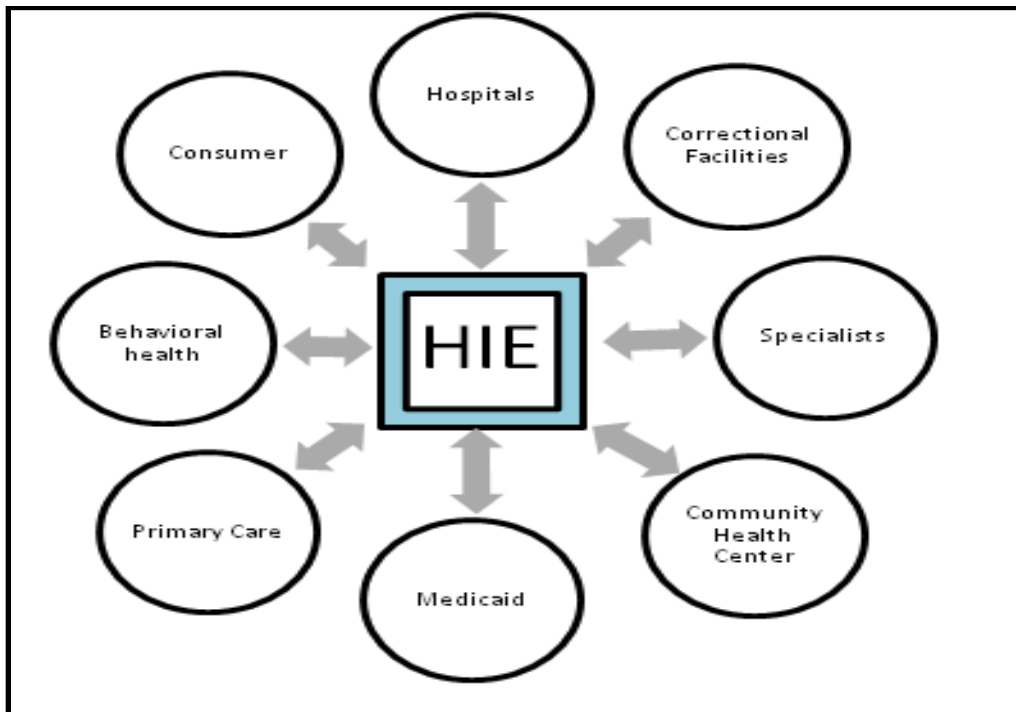


## How are jurisdictions currently using HIEs to build connectivity between health and justice systems?

- > Several states and city governments are actively working to develop bidirectional information flow between community health and justice systems through HIEs. For example, some jurisdictions provide professionals working in correctional facilities with access to health data maintained in the HIE. This allows a correctional health provider or authorized jail or prison staff person to view clinical information relating to someone that they are serving in their facility, from other providers in the HIE network. By linking correctional facilities into HIEs, clinicians working in a range of settings can access information on any medical treatment a patient receives while incarcerated, helping ensure continuity of care as people return to the community.

## How can my agency become a member of the HIE?

- > In order to get access to your local HIE you will need to enter into contractual agreements with the entity that oversees the exchange and other partners. Once you have joined the HIE, you will be able to share data with other members to coordinate care for your shared patients. As a first step, you should contact your state or local health department to determine who oversees the HIE. [Click here](#) to find out more about HIEs in your state.



**Health Information Exchange.** The image above depicts how an HIE serves as a data hub permitting bidirectional information sharing across a number of distinct entities.



## Linking Justice and Health through Health Information Exchange (HIES)

**Health information exchanges (HIEs)** enable the electronic sharing of health-related information across organizational and jurisdictional boundaries, connecting treatment providers at the regional and state level. Below are some examples of jurisdictions that are using HIEs to enhance connectivity between their criminal justice and healthcare systems. While the potential for HIEs to increase access to healthcare for justice system-involved populations is considerable, most jails, prisons, and probation and parole agencies do not currently participate in their local HIE. There are a number of factors that may explain the lack of integration of justice agencies, including technology requirements (agencies need to have an EHR system in order to participate), the siloed nature of agencies, and concerns about releasing sensitive health information to justice agencies. These concerns notwithstanding, connecting health providers in justice settings with their local HIEs presents enormous potential for increasing access to essential healthcare services for underserved populations.

- > **Salt Lake City, Utah.** Health officials in Utah are pursuing a vision where the state HIE will serve as an informational hub that can be used to streamline enrollment into Medicaid or other health insurance plans offered in Health Insurance Exchange (HIX), and track clinical encounters with the justice system and treatment community. Utah plans to use the HIE to support people as they transition between correctional settings and health services in the community. The HIE will also help improve the effectiveness of existing alternatives to incarceration programs by providing clinical information to case managers, advocates, judges, and others working in the courts.
- > **Pima County, Arizona.** In 2010, Arizona established the Health Information Network of Arizona (HINAz), which recognizes 29 HIE stakeholders across the state, including hospitals, community health centers, and health plans. Pima County is the only county in the state to join the board of HINAz and advocate for including correctional health systems to achieve optimal use of the state HIE. Nearly 40,000 people enter the Pima County Adult Detention Complex (PCADC) each year. More than half of people booked into the facility have previous involvement in the public mental health system, and a large percentage have received treatment for a chronic health condition. Connecting PCADC to the state HIE will dramatically improve the booking process by providing intake specialists with critical medical histories necessary to provide continuity of care, reduce medical error, and triage people to appropriate services. [Click here](#) to read a memorandum from Pima County officials making the case to link the detention facility to the state HIE.
- > **Camden, New Jersey.** The Camden county jail has joined the local HIE alongside hospitals and community clinics increasing the connectivity between correctional and community health systems. Through the HIE, staff at the jail are now able to log in to an online system and access important clinical information for people in the jail. This information can help the jail provide appropriate care while someone is in the facility, as well as informing reentry plans and referrals to community healthcare providers for people when they leave. [Click here](#) to view a PowerPoint presentation about Camden's HIE.

## What if it is not financially feasible for my jail or prison to invest in electronic health records? Are there less expensive technological solutions?

- > **Secure e-mail messaging.** While an interoperable electronic health record that can interface with community health systems is ideal, there are technical solutions available that do not require a large investment of resources.

ONC's [Direct Project](#) provides a low cost alternative to fax machines and paper records by pushing clinical summaries between providers via secure e-mail exchanges.

- > **Cloud Computing.** Uses remote technology servers that can be located anywhere and accessed via the internet. This may be a viable option for smaller jurisdictions that cannot afford to invest in expensive technological infrastructure within their agency.

*"In-house systems are incredibly expensive to develop, require additional information, technology staff, and, once they are built, are difficult to expand or change. Cloud computing, on the other hand, is flexible, expandable, and you pay as you go with no upfront investment and only for what you use."*

–Paul Wormeli, the IJIS Institute on cloud computing

## Additional Resources

### Websites

The American Health Information Management Association (AHIMA)

<http://www.ahima.org/resources/default.aspx>

Healthcare Information and Management Systems Society (HIMMS)

<http://www.himss.org/library/topics?navItemNumber=13211>

HealthIT.gov

<http://www.healthit.gov/>

IJIS Institute

<http://ijis.org/>

### Fact Sheets

The Healthcare Information and Management Systems Society (HIMSS), “The Legal Electronic Health Record,” [http://www.himss.org/content/files/legalemr\\_flyer3.pdf](http://www.himss.org/content/files/legalemr_flyer3.pdf) (accessed June 3, 2013).

National Commission on Correctional Healthcare, “Telemedicine Technology in Correctional Facilities,” <http://www.ncchc.org/telemedicine-technology-in-correctional-facilities> (accessed June 3, 2013).

New York eHealth Collaborative, “Introduction to Electronic Health Records (EHRs),”

[http://www.nyehealth.org/images/files/File\\_Repository16/qanda/Intro\\_to\\_EHRs\\_Final\\_121009-4.pdf](http://www.nyehealth.org/images/files/File_Repository16/qanda/Intro_to_EHRs_Final_121009-4.pdf)

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### Publications

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<http://www.cochs.org/files/hieconf/CHALLENGES.pdf> (accessed June 3, 2013).

Silow-Carroll, Sharon, Edwards, J. N., and Rodin, D. “Using Electronic Health Records to Improve Quality and Efficiency: The Experiences of Leading Hospitals.” July 2, 2012. Commonwealth Fund.

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<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3070231/> (accessed June 3, 2013).