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Health Information Exchange—First Considerations

Overview

Health Information Exchange (HIE) is one of the most common forms of utilizing an EHR solution and supports key requirements of Meaningful Use stage 2. Yet, simply determining whether your practice is ready to build or join an HIE can be a challenge. This guide provides some basic information for providers to consider while evaluating options for HIE.

Building an HIE

Many providers elect to build their own HIE, which is either funded and operated by an individual provider organization or as a collaborative of providers. Most privately built HIEs are owned and operated by hospitals or hospital systems due to the capital requirements and necessary policy development. Benefits of building an HIE include tailoring use-cases directly to your provider's needs, controlling the storage and usage of all data within the network, and ability to set privacy and security controls.

Joining an HIE

Many options exist for joining an existing HIE or an HIE in the planning process. These HIEs range from state-operated networks to private exchanges and EHR vendor solutions. In general, joining an HIE is lower cost than building an internal HIE, consumes fewer personnel hours and offers a wider range of exchange partners.

Statewide HIE

Most states are building a statewide infrastructure for information exchange. These exchanges offer a range of capabilities, commonly including a Record Locator Service, provider directories, secure messaging and exchange of electronic lab results. Statewide information exchanges have been subsidized by grants from the federal government to lower the cost of upfront infrastructure build. Benefits of joining a statewide HIE include communication with participating regional affiliates, access to statewide provider directories and often low-cost exchange options.

Direct Project Applications

The Nationwide Health Information Network (NwHIN) Direct Project is set of standards and protocols to support secure messaging across trusted organizations nationwide. These applications are similar to commonly available email applications, but provide encrypted messaging to ensure the safety and security of exchanged information. Just like email, the Direct project requires the user to know the recipient's address. Most Direct Project applications do not include a system for searching and finding patient records or provider contacts (direct project addresses). Benefits of deploying a Direct Project application include nationwide communication, securely encrypted messages and attachments, cost-effective information exchange, and relatively simple implementation.

EHR Vendor Solutions
Many EHR vendors offer information exchange modules to support exchange of information amongst providers the same EHR solution. A limited number of vendors offer solutions for exchange between multiple EHR vendors. Exchange between EHR solutions ranges from natively available Direct Project applications (built directly into EHR solutions by the vendor) to complete interoperability resulting from vendor-to-vendor interfaces. Benefits of deploying an EHR solution from your vendor include functionality built directly into the EHR, minimal disruption to clinical workflows and low use of internal technical resources.

Private HIEs
Private HIEs are common across the nation and offer exchange within their network. Private HIEs are offered by a range of organizations from provider collaboratives to state hospital associations, regional non-profits and software vendors. Benefits of joining a private HIE include a wide variety of capabilities, proven use-cases and often strong financial sustainability.

HIE Readiness Self-Assessment

The HIE Readiness Self-Assessment is a tool for healthcare providers (single hospitals and/or hospital systems) to evaluate their readiness for health exchange and identify the operational, financial, and technical considerations necessary to build a sustainable private health exchange.

Utilizing the HIE assessment framework allows organizations and collaboratives to create operationally sustainable plans to seamlessly exchange clinical data more efficiently and at a lower overall cost. In addition to the baseline benefits of a private HIE, including enhanced patient safety and clinical outcomes, creating exchanges of data also drives the following operational benefits:

- Enhancing transitions of care
- Increasing the number of referring physicians to support a hospital or system's growing market footprint and revenue base
- Reducing potentially preventable readmissions
- Reducing administrative costs
- Increasing revenue from enhanced billings and collection

The outcomes of this self-assessment will be used to determine the extent to which your network is ready to deploy an HIE and, based on that assessment, the creation of a road map for the implementation of the HIE.

HIE Readiness Assessment Approach

After the HIE Readiness Self- Assessment, you may consider completing a more detailed and thorough Readiness Assessment. The approach could include a heavy focus on the clinical, operational, financial, and technical factors within the hospital customer as well as their desired healthcare trading partners (practices, labs, clinics, etc.). Some components to consider:

Environmental scan

- Identify and recruit internal HIE stakeholders within the hospital system
- Identify desired and potential HIE stakeholders outside the hospital system
- Assess existing privacy & security policies and identify gaps within current standards

Health exchange use cases

- Identify and prioritize use cases for health information exchange in your ecosystem
- Develop benchmark metrics for each use case
- Integrate use cases into operational/IT assessments and financial sustainability plan

Operational goals and benchmarks

- Assess and analyze the current operational environment within the hospital system
- Assess and analyze the operational environments within the identified stakeholders
- Create operational goals for developing and implementing health exchange
- Determine the appropriate governance requirements between the hospital and its stakeholders
- Identify processes for on-boarding new trading partners to the HIE

HIE workflow assessment

- Identify workflows specific to HIE operations
- Identify gaps in workflow between disparate EHR system(s) and the HIE
- Assess and integrate external workflows to enable HIE utilization

IT/interoperability assessment

- Identify current IT/EHR system(s) environment
- Assess the IT/EHR systems in place within key stakeholders
- Identify opportunities to standardize stakeholders on internal IT/EHR systems
- Identify the interface/interoperability gaps between hospital systems and stakeholder systems

Meaningful Use gap analysis

- Assess gaps between current level of adoption and attestation for Meaningful Use Stage 1
- Determine the gaps between successful Stage 1 attestation and requirements for Meaningful Use Stage 2

Financial sustainability

- Identify the cost and revenue ROI metrics associated with each HIE use case
- Develop a high-level timeline for implementation of agreed upon use cases
- Create a high-level financial sustainability model for HIE with specific recommendations for its implementation

Key Stakeholders in the Health Care System

Chief Executive Officer (CEO)
The hospital CEO is the highest-ranking official in the hospital organization. He/she is responsible for developing strategic vision and policies for the hospital. The CEO usually works alongside a team consisting of the CNO (Chief Nursing Officer), CMO (Chief Medical Officer), COO (Chief Operating Officer) and the CFO (Chief Financial Officer). These positions form the hospital's executive management team. Hospital CEOs typically hold a Masters in Healthcare Administration, Business Administration or Nursing. They may have been in previous positions such as strategic management, business and executive leadership and are likely to have 15 or more years of healthcare experience.

Chief Operating Officer (COO)
The chief operations officer of a hospital bears ultimate responsibility for making sure that the day-to-day business operations of the medical facility run smoothly and efficiently. The COO enforces the hospital's policies and procedures, and manages human and material resources, to ensure patient and doctor satisfaction, high employee morale, and hospital profitability. The duties and responsibilities of a hospital COO cover a wide range of business management activities, some of which are dealt with directly and some of which are tasked to subordinates.

Chief Medical Officer (CMO)
The Chief Medical Officer is a physician who serves to advise and lead a team of medical experts on matters of public health importance.

Chief Information/Technology Officer (CIO/CTO)
A healthcare CIO (Chief Information Officer) is in charge of the information that passes through healthcare companies and the systems and technology that enables the processing and distribution of that information.

Chief Financial Officer (CFO)
Hospital Chief Financial Officers bear the primary responsibility of ensuring that the overall fiscal operations of a medical facility run smoothly. The CFO typically creates strong business strategies, acts as an administrative leader, and provides in-depth analyses of financial policies that will keep an organization competitive in the market.

Applications Director
The Applications Director is responsible for the acquisition, installation, development and maintenance of all software programs and applications used throughout the hospital. This will typically involve multiple systems, with numerous enhancement, change or replacement projects running concurrently. This person will probably be the best technical resource for specific system questions.

Legal/Compliance Officer
The healthcare Legal/Compliance Officer establishes and implements an effective compliance program to prevent illegal, unethical, or improper conduct. The Legal/Compliance Officer acts as staff to the CEO and Governing Board by monitoring and reporting results of the compliance and ethics efforts of the company and in providing guidance for the Board and senior management team on matters relating to reporting and compliance. The Legal/Compliance Officer, together with the Corporate Compliance Committee, is authorized to implement all necessary actions to ensure achievement of the objectives of an effective compliance program.

Dimension	Definitions
Governance	The strategic framework that will shape how the HIE is deployed and utilized. It defines the vision, mission, expectations, roles and responsibilities for the HIE.
Sustainability	The return on investment and operational independence needed to sustain the HIE over time. The evaluation will look at the financial model being utilized and how the organization is establishing the technical and operational resources to deploy and support the HIE
Technology	The current state of the technology environment and an assessment of the readiness to deploy HIE. The assessment will determine the IT/EHR systems environment (number of solutions, versions, degree of automation, current inter-connectivity, etc.)
Legal and Policy	The principles, policies and procedures that are in place to protect the privacy of the patient data and ensure that the HIE is secure. This dimension will also include an identification of all federal, state and local policies and regulations which will govern the HIE.
Provider Adoption	The operational state of readiness to utilize the HIE. The evaluation will consider the number of disparate systems, the current level of automation in the work flows and general receptivity to HIE.
Evaluation	The framework to evaluate performance once HIE has been deployed. The assessment will look for performance metrics and practices for collecting and analyzing the data. The evaluation framework must be in place in order to move toward meaningful use certification.
Consumer Engagement	The extent to which there is internal and external support for the HIE. This will apply to the foundational hospitals and the extended clinics, labs and practices that are part of the network.