How to Evaluate a Potential HIE/HIO Opportunity

What to Ask!

As with any decision-making process, it is important to evaluate comprehensive and specific aspects about the HIE/HIO prior to concluding whether this is a viable option for your practice. The following list provides nine key types of information that will provide supporting facts to evaluate HIE/HIO appropriateness for your practice:

1. General organizational qualifications (goals and philosophy, business plan, governance, leadership, mission, vision, etc.)
2. Core services and value-add services and/or products offered
3. Future services
4. Funding and revenue (i.e., sustainability of organization)
5. Participating stakeholders
6. Reputation in the community
7. Value to constituents (e.g., participants, stakeholders, patients, families, and community)
8. Financial and operational risks
9. Requirements for participants

General Organization Qualifications

Similarly to performing due diligence on any potential business entity, the same principles apply in your evaluation of an HIE/HIO. [Note: In certain geographic areas, one or more HIEs/HIOs may exist, providing options for your evaluation.]

The background or basic information about an HIE/HIO will include a number of components that may be readily available on their website or through publicly available documentation:

- Mission and vision for the organization;
- Business plan (including targeted goals for participants);
- Designated leadership with relevant expertise;
- Governance structure that provides a voice for stakeholders;
- Legal structure / legal contracting entity (e.g., for-profit entity, non-profit entity [501(c)(3) and other non-profit designations], and state or other government agency (e.g., State Level HIE); and
- Adherence to regulations.

Core Services and Value-Add Services and/or Products

Each HIE/HIO will provide core services as well as value-add services and/or products. The most common core services may include:

- Audit logging and error handling for data access and exchange;
- Secure clinical and administrative data delivery, and confirmation of delivery, to electronic health records (EHRs), personal health records (PHRs), and other systems and networks;
- Data look-up, retrieval and data location/registries;
- Subject-data matching capabilities;
- Summary patient record exchange;
- Support for secondary use of clinical data, including data provisioning and distribution of data transmission parameters;
- Provider directory support of an HIE-level, non-redundant methodology for managed identities;
- Patient portals / PHRs;
- Testing and results reporting;
- EHR-lite or comprehensive EHRs;
- Administrative services (e.g., claims, authorization, payment systems);
- Disease management services; and
- Community and public health reporting.

**Future Services: The Next Evolution of HIEs/HIOs**

HIEs/HIOs will continue to evaluate new systems, technologies, and/or services that might enhance the experience of their participants. These participants, who are also stakeholders across the continuum of care, may include consumers, physician practices, hospitals or health systems, employers, payers, government agencies (e.g., state level public health, Center for Disease Control [CDC], federal agencies), pharmacies, etc. As a result, HIEs/HIOs will look for engagement with their stakeholders to research and assess emerging systems and technologies that can be offered as products and/or services.

One of the greatest challenges HIEs/HIOs may encounter relative to future services is the accelerated rate of advancement in emerging and new technologies. Each HIE/HIO will need to evaluate whether the newest technologies and systems can or will be added to their offerings based on the demand of participants.

Today, mobile devices, medical devices and smart phones are changing the way providers interact with their patients and monitor their progress as well as chronic conditions. In addition, there is a rapidly growing number of applications termed “mobile health” (mHealth) that are designed to support physicians in accessing patient information, collecting patient information and accessing reference materials.

Another area of growing interest for consideration of future services is analytics. Some examples of the types of analytics that focus on specific priorities might include:

- Data warehouse, data analytics and business intelligence;
- Quality reporting support;
- Performance management;
- Fraud and abuse identification and prevention;
• Population monitoring and predictive profiling;
• Care gap identification;
• Care and disease management; and
• Public health monitoring and analysis.

Population health is another area of interest for future services. Some of those services might include:

• Disease registries;
• Alerts and notifications; and
• Clinical research.

[Note: Depending on the HIE/HIO that you are evaluating, one or more of what might be termed “future services” may well be in place due to the requirements and demands of their participants and stakeholders. Please refer to the comprehensive listing of services and/or products available today, as well as those that might be planned in the next 12 to 18 months.]

**Funding and Revenue**

As with every business, the funding and revenue stream is a critical element required to create a sustainable operating business model. Thus, understanding the current financial status of an HIE/HIO and the corresponding revenue approach (i.e., sustainability) is another important component of your evaluation process.

Currently, there is federal funding that originated with the American Recovery and Reinvestment Act (ARRA) in 2009. While this initiative has been helpful to launch HIEs/HIOs, it was not intended to provide long-term funding. As a result, today there are five common sustainability models that you are most likely to encounter when evaluating HIEs/HIOs:

1. Membership fees;
2. Transaction fees;
3. Program and services fees;
4. Combination of fees; and
5. Other funding streams.

A brief description of each of these fee types follows:

**Membership Fees**

• Stakeholders pay to support shared services for all users of the HIE.
• Membership fees may be equal or tiered on the basis of some factor.
• Considerations of the relative value to each participant of the electronic HIE services are critical to determining the appropriate fee.
• Commitment from a critical mass of members is necessary to achieve success.

**Transaction Fees**

• Fees are charged for data-exchange services.
• Unlike the Membership Fee model, dependence on this revenue source requires initial capital investments to build infrastructure and capabilities.
• Transaction fee arrangements include price per clinical result delivered, price per covered life PMPM (per member per month), and price per month for license to use a particular software package over the Internet.
Program and Services Fees

- The HIO acts in a programmatic capacity and charges stakeholders for their participation in, or on the outcomes from, broader-scope program activities undertaken by the electronic HIE organization.

Combination of Sources

- Most HIOs agree that a combination of revenue sources will be necessary to achieve long-term operational sustainability.

Other Funding Streams

- This includes providing value-added services in the form of “EHR-lite” functionality or health information technology (HIT) implementation support involving large employers.
  - One example is the state of Vermont, which has a one-of-a-kind electronic HIE sustainability business model. Legislatively mandated, each health insurer in Vermont will pay 0.199% on all medical claims into an HIT fund. The fund will raise approximately $32 million over seven years.

Stakeholders

Each HIE/HIO will have a particular array of stakeholders that reflect both the geographic healthcare market and the defined organizational model established for this entity. The list of potential stakeholders includes, but is not limited to:

- Hospitals, health systems, integrated delivery networks (IDNs), and critical access hospitals (CAHs);
- Physician practices, ambulatory clinics and other out-patient offices;
- Community health clinics;
- State public health departments;
- Post-acute providers (e.g., long-term care facilities, rehabilitation, home health, hospice, behavioral health providers);
- Pharmacies and other ancillary service providers;
- Employers / business groups;
- Other state government and state agencies;
- Payers / self-insured employers; and
- Community / consumers.

While there are common stakeholder groups across HIEs/HIOs, each organization will be unique to its specific geographic market and service offerings.

Reputation in the Community

There may be a variety of sources to determine the reputation of a specific HIE/HIO. Reference calls can be the more direct approach to securing relevant information about a participant’s experience. Typically, several reference calls can provide a broad understanding of services and/or product offerings. In addition, testimonial letters may be available, as well as case studies documenting the impact of an HIE/HIO on physician practices or clinics. Whenever evaluating information about a reputation, it is important to balance perception versus factual information that either supports or does not support whether the HIE/HIO may be a viable business partner for your practice.
Value to Constituents
Each physician practice, or any other constituent, must evaluate what value they expect to derive from their participation in an HIE/HIO. There are numerous examples of what constitutes value, including, but not limited to:

- Quality of care improvement;
- Patient safety;
- Immediate access to relevant electronic patient information;
- Interoperability between and among disparate information technology systems used by healthcare partners delivering care to their patients;
- A path to achieve certain types of compliance, such as Meaningful Use requirements; and
- A leveraged model providing opportunities to access services and/or products that might be otherwise unaffordable.

Risks
Potential risks exist regarding both the financial and operational aspects of an HIE/HIO. The list below includes commonly experienced challenges or risks:

- Sustainability model;
- Addressing government policy and mandates;
- Defining the value of the HIE to stakeholders;
- HIPAA – privacy, consent, confidentiality, security and breach policies;
- Technical infrastructure – architecture, applications and connectivity;
- Governance issues / business structure;
- Legal issues;
- Systems integration;
- Cross referencing patients / patient identity; and
- Engaging participants (varies by HIO and coverage area; examples include health plans, practicing clinicians / providers, laboratories, pharmacies, employers, etc.).

Requirements for Participants
Participants will be presented with a variety of requirements as they consider membership with an HIE/HIO, such as:

- Technical requirements to connect and participate;
- Staff training requirements to learn systems for connection and participation;
- Fee structures based on selected services and/or products;
- Contract for data use; and
- Contract for participation.

There may be prerequisite levels of hardware and/or software to support initial access to the HIE/HIO network. Depending on which value-add products and/or services might also be under consideration, additional pre-requisites or costs may be applied. This information should be identified during your evaluation process so that the practice can anticipate both initial start-up costs and ongoing costs.
Other Options for Consideration by Physician Practices

Other options that a physician practice might consider to provide some level of benefit include the Nationwide Health Information Network (NwHIN) and the Direct Project.

If your practice requires access to providers that may be spread out across significant geography, it will be important to confirm whether the HIE/HIO is participating in the NwHIN. This step may or may not be a priority at the current time for your practice. The NwHIN initiative helps to connect providers with thirty-six federal government agencies and other stakeholders that have been on-boarded to the nationwide network. Practices that can benefit from the NwHIN would be those providing care to the Veterans Administration, those that have the need to report to the CDC, and/or those caring for patients who have disability claims with the Social Security Administration (SSA).

If your practice would benefit from a short-term solution to gain secured communications between and among providers, the Direct Project can satisfy that requirement. It is important to reiterate that while this type of encrypted communication supports achieving Stage One Meaningful Use, it currently will not scale to provide the path to support achievement of Stage Two Meaningful Use and beyond, which will require aggregation of data and reporting.

Intersection with the State Level HIE (SLHIE)

In March 2010, the ONC completed the announcement of State HIE Cooperative Agreement Program1 awardees. As a result, fifty-six states, eligible territories and qualified State Designated Entities (SDEs) received awards. Each state identified the state department or agency that will receive and distribute the federal funding to their identified State Level HIE (SLHIE).2 This will vary from state to state. Examples of state departments or agencies that may have this responsibility include the State Department of Health, State Department of Community of Services or Office of eHealth. Also within these state departments or agencies may be sub-departments that are assigned responsibility for the SLHIE. These departments may go under names such as Department of HIT or Department of eHealth. It is important for you to know how your state and SLHIE are organized, and to identify the key players at the state level. Below is one example of a state that uses the state Office of eHealth Initiatives as the identified state entity with responsibility for the SLHIE. This model also has the SLHIE (HIE/HIO Office) as a third party entity that does not reside directly under the state.

Each state can choose to identify an SDE for HIE that would be responsible for coordination of HIE activities across a state. States receiving funding from the Cooperative Agreement Program are required to submit strategic and operational plans to the ONC with annual updates. More information on individual state plans can be found at http://statehieresources.org/.

### Additional HIMSS Reference Materials:

- Reference material that specifically addresses the decision-making process relative to considering participation in an HIE can be found in the HIMSS Guide to Participating in an HIE (this document is a HIMSS members-only resource): [http://www.himss.org/content/output/F47E262162EA4CCEAA28BAB94336C753.pdf](http://www.himss.org/content/output/F47E262162EA4CCEAA28BAB94336C753.pdf).
- HIMSS HIE Evaluation Checklist (available as a Microsoft Excel document): [www.himss.org/content/files/HIEEvaluationChecklist.xls](www.himss.org/content/files/HIEEvaluationChecklist.xls)