

UNLV and HealthIE Nevada Research Topic on HIEs

HealthIE Nevada and UNLV began work on determining what makes a successful Health Information Exchange. There are several factors which influence whether an HIE can be formed, grow, mature, become successful, and be sustainable. HIE's generally follow this maturity model:

- Early/start up – Connectivity / Build Technology /
- Transitional – Growth in Connectivity, New Data Types and New Services
- Mature and sustainable – Solid sustainability, Public Support, Value Added Services

What are the challenges?

Health Information Exchange is a complicated and technologically challenging business due to many factors:

- Health data is extremely complex and varied, especially when collected from many organizations.
- EHR vendors have little incentive to make data readily available to other systems, rather they sell more of their own systems if only their products work together.
- Standards for health data exchange are too vague and not readily adopted by many vendors.
- There are two main levels of health data standards: message standards (HL7, DICOM, etc.) and terminology content standards (ICD10, CPT, SNOMED, LOINC, etc.) which require very different skills to manage.
- Managing the business requires both core business knowledge but also how to manage state and federal grants.
- The payment system in the United States is only partially value based which would encourage more data sharing and align incentives.

What makes a successful HIE?

Successful HIEs have certain characteristics that distinguish them from those that are less successful or fail. Ultimately a successful HIE lowers costs and saves lives. We will briefly discuss each of the characteristics and what makes an HIE successful.

Organization Type/Governance Model

The most successful HIEs are public-private partnerships which have state and federal support, private support, and are operated by a non-profit. The state provides funding to build out the necessary infrastructure and connectivity but then all subscribers pay for using the HIE. This is similar to how a broadband network would get implemented. The state provides oversight but not management of the entity operating the HIE. As the model matures it becomes more of a Health Data Utility with mandatory participation and patient services.

- State run
- Privately run non-profit
- Privately run health system based
- Public-private partnership using a non-profit
- Sole State HIE/Health Data Utility

HIE/Population Size and Scope

The size of the population has an impact on whether enough funding can be obtained to create and manage the complex services described above. Any region or state below 3M generally is too small to be successful. There are numerous examples of consolidation going on now where HIEs are merging or affiliating to create the right economies of scale.

- Market size by patient population (>3M)
- HIE Consolidation – multi-state

Financial Support

Financial support is crucial to the success of any HIE. As most HIEs are non-profit that means they need to generate the capital investment to build out the network via grants or other state and federal funding. Ongoing sustainability is then proportional to the population served and funding is provided by all HIE participants, payers with Medicaid paying their fair share.

- Private seed funding
- Public seed funding
- Grant or research funding
- Sustainability model funding
- Service fees

Leadership and Business Acumen

It cannot be overstated how important the leadership and business acumen of the HIE team is to the success of the HIE. The organization should be a non-profit but must operate like a business. There are many challenges that were mentioned above.

- Health care knowledge
- Technology expertise
- Financial management
- People management

Public Policy

Public policy can have a major impact on what an HIE can accomplish. It is not just about the funding but also about public health, consent policies, population health, care coordination, data analysis, medical research, and numerous other issues. It is important that the governance model is flexible to allow for innovation in the future.

- Regulations which support HIE
- Public health policy
- Consent model (opt-out)
- Financial support from Legislature

Sustainability

As mentioned above in the section on Financial Support the HIE cannot solely depend on public funds. It must have a plan to get all stakeholders to participate financially but also to create new value-added services which benefit the subscribers and generate new sources of revenue.

- Sustainability plan
- Sustainability model
- Value added services

Our attached HIE landscape spreadsheet provides a comprehensive view of HIEs across the country. We do not have a complete picture of all the funding of the HIEs but provide what we know from public sources or colleagues in the industry. The ratings of the successful HIEs are somewhat subjective but based on ongoing success and state support.