


The Status of HIEs: The EHR Vendor Perspective

Michael Stearns, MD
President and CEO
e-MDs, Inc.


The Ultimate Goal

- Seamless interoperability
- Complete access to data across all enterprises
- Access to data that truly represents the clinical condition and needed interventions of:
 - Individual patients
 - Patient populations
- Sharing of data is free from privacy considerations, as everyone is happy with the current model

Seamless Interoperability

- Majority of HIE efforts in the U.S. do not support usage of discrete data
- Most data available at this time is stored as claims data 
 - Inherent challenges with claims data can impact semantic interoperability.
- Lack of standards and requirements
 - E.g., terminologies in CC

Seamless Interoperability (2)

- Challenges associated with:
 - Negation
 - E.g., No family history of diabetes
 - Uncertainty 
 - E.g., “doubt multiple sclerosis”
 - Post-coordination
 - E.g., assembling a series of codes into one message
 - Complex clinical expressions:
 - E.g., no evidence of recurrent leukemia based on clinical or laboratory measures

Complete access to data across all enterprises in a community

- Difficulties with getting healthcare stakeholders to share data
 - Competitive issues
 - Ownership issues
 - Breach responsibility issues
 - Technical issues
 - Provider reluctance
 - Data ownership issues
 - Data analysis issues

Access to data that truly represents the clinical condition

- Majority of accessible data is stored in the form of claims data
 - Inherent inaccuracies in these “administrative” terminologies
 - Can be misleading regarding the clinical condition
 - Not suitable for clinical decision support, patient centric management or population based management
 - Use/adoption of alternative forms of codified data such as SNOMED CT have been lacking

Access to data that truly represents the clinical condition (2)

- SNOMED CT potentially would be preferable
 - Challenges with point of care usage
 - Interface terminology usage minimal at this time
 - Minimal adoption of SNOMED CT
 - Not required
 - Limited ability to support post-coordinated expressions in most information models
 - E.g., Severe spinal cord injury (code for severe plus code for spinal cord injury)

Patient Privacy

- Challenges associated with:
 - Privacy
 - Consent
 - Segmentation
 - Patient safety issues
 - Workflow issues
 - Technical Issues
 - Deidentification – Is it truly possible?
 - Data ownership
 - Who owns the data
 - It has potential commercial value
 - If not properly protected could lead to social or professional consequences for patients.