Health Information Exchange:
What is it and why should I care?

May 2013
Today’s Session:

1. Definitions
2. HIE vs. EMR
3. Why is the HIE Accessed?
4. Components
5. Implementation Strategy
6. Benefits
7. Change Management Strategy
8. Challenges
9. Orion Health HIE Client Profile
Health Information Exchange (HIE) ...

“... actually encompasses two related concepts:

– Verb: the electronic sharing of health-related information among organizations

– Noun: an organization that provides services to enable the electronic sharing of health-related information (HealthIT.gov)

“... refers to the process of reliable and interoperable electronic health-related information sharing conducted in a manner that protects the confidentiality, privacy and security of the information.” (AHIMA)

“... is the electronic movement of health-related information among organizations according to nationally recognized standards.” (US Dept of HHS)

≠ Health Insurance Exchange

For more information visit [http://www.healthit.gov/providers-professionals/health-information-exchange/what-hie](http://www.healthit.gov/providers-professionals/health-information-exchange/what-hie)
## EHR vs. HIE

<table>
<thead>
<tr>
<th></th>
<th>EHR</th>
<th>HIE</th>
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<tbody>
<tr>
<td><strong>Patient Record</strong></td>
<td>Facility or organization-based; MRN is the unique patient ID</td>
<td>Longitudinal view integrating information from 2 or more sources; enterprise master patient index links MRNs from many organizations to one unique identifier</td>
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<td><strong>Functionality</strong></td>
<td>Detailed clinical documentation, medico-legal patient record</td>
<td>Primarily view-only – focus on critical patient data (allergies, medications, problems) and summary documentation (discharge summaries, visit notes)</td>
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<td><strong>Standards</strong></td>
<td>Structured data entry encouraged; organization-based or modified code sets utilized; free text entry permissible</td>
<td>Essential for “information reconciliation” – HL7 messaging, code sets (ICD-9, SNOMED), continuity of care document (CCD) ...</td>
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<td><strong>Change Management</strong></td>
<td>Complete process reengineering – move from paper to automation; entire clinical workflow is reinvented for the better</td>
<td>Not about reengineering! It’s about: • Ensuring seamless integration points • Expediting information flow • Eliminating the use of outdated communication channels</td>
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Why the HIE is accessed?

When and why a Provider needs to access the HIE:

- New patient, not seen before
- Infrequent patient
- Complex patient
- Tracking of patient
- Patient ER visits and hospital stays
- EHR is unavailable
- Remote Access
HIE Components

**Enterprise Master Patient Index**
- Demographics
- Patients
- Providers

**Terminology Services**
- Normalization
- Code Set Mapping

**Clinical Data Repository**
- Demographics
- Encounters
- Clinical Documents
- Allergies, Problems
- Medications
- Results & Findings

**HIE Module**
- Privacy & Consent
- Role-based Access
- CCD Exchange
- Secure Messaging

**Integration Engine**
- Parsing
- Validation
- Transformation
- Routing
- Acknowledgements

**NwHIN Gateway**
- HL7 CCD

**External Systems**
- NwHIN
- HIEs
- Medicare
- Medicaid
- Known Registries

**Source Systems**
- EMRs
- EHRs
- Laboratory
- Radiology
- HIS

**Provider Portal**
- Longitudinal Record
- Care Management
- Analytics
- Web based
- Direct Messaging

**Patient Portal**
- Clinical Summary
- Secure Messaging
- Health Library
- Circle of Care
HIE Implementation Strategy

Core HIE
- Provider Portal
- Enterprise Master Index
- Clinical Data Repository
- Integration Engine
- CCD Exchange
- Direct Secure Messaging
- Privacy & Consent

Care Coordination
- Patient Population Management
- Chronic Disease Guidelines
- Public Health Reporting
- Analytics

Community Health Record
- Patient Portal
- Diagnostic Orders
- ePrescribing
- Referrals
- Innovative Care Models
Benefits

- Helps facilitate coordinated patient care across disparate organizations
- Reduces duplicative treatments
- Avoids adverse patient care events
- Increases efficiency by eliminating unnecessary paperwork
- Improves public health reporting
- Promotes best practice standard patient populations
- Stimulates patient’s involvement care
Change Management Strategy

- Have a strategy to effect change – otherwise you never move beyond utilization and curiosity
- Engage the stakeholders
- Identify HIE “touch points” to facilitate clinical workflow integration
- Plan for role-based users – clinicians and support staff derive differing value and benefits
- Establish a clinical governance structure
- Training vs. education
- Develop a communication plan
Challenges

- Data quality issues from source systems
- Information reconciliation – lack of standards
- Consent management -- protecting the patient’s right to privacy
- Data sharing among competitors
- Competing priorities
- Ensuring sustainability
Orion Health HIE Client Profile

Canada Flagship HIEs
- Alberta Health Services, AB
- New Brunswick Department of Health, NB
- Quebec Department of Health, QC
- Saskatchewan Department of Health, SK
- The Northwest Territories, NT
- Ministry of Health & Long Term Care, ON
- Newfoundland & Labrador Centre for Health Information, NL

Europe Flagship HIEs
- Greater Glasgow NHS Trust, Scotland
- IB Salut, Palma, Spain
- NCS, France
- Health and Social Care Northern Ireland (HSCNI), Northern Ireland

Asia Flagship HIE
- Singapore Ministry of Health, Singapore

USA Flagship HIEs
- Maine HealthInfoNet, ME
- Alaska eHealth Network (AeHN), AK
- Lehigh Valley Health Network, PA
- Louisiana Health Care Quality Forum, LA
- North Carolina DHHS, NC
- Lahey Clinic, MA
- Inland Northwest Health System, WA & ID
- Western Washington Rural Health, WA
- Shared Health, TN
- Chatham County, GA
- Ochsner Health System, LA
- North Texas Accountable Care Partnership, TX
- St Vincent’s Medical Center, FL
- Inland Empire HIE, CA
- Catholic Health Initiatives, CO
- New Mexico Health Information Collaborative, NM
- District of Columbia, DC
- Commonwealth of Massachusetts Executive Office of Health and Human Services, MA

Australia Flagship HIEs
- NSW Health, Sydney, NSW
- Dept. of Health & Ageing PCEHR, Australia

HIE Implementations