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HIMSS HEART OF AMERICA Chapter

MoHIMA Missouri Health Information Management Association

LEWIS AND CLARK
INFORMATION EXCHANGE

Moving Beyond Meaningful Use

Current Trends and Topics in Healthcare IT

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LACIE Executive Director

LACIE Background

- 501 (c)(3)
- Approved HIO in Kansas, also operating in Missouri. Participant mix is approximately 50/50
- Governed by Perpetual Board of Directors
  - Hospitals
  - Providers (ACO)
  - Center for Practical Bio-ethics
  - Federally Qualified Health Center
- Located in Kansas City
- 2 Most Important Lessons Learned to Date
  - Political and Business Decisions Are the Greatest Barriers
  - Cannot Be All Things to All Participants

Current Status of Interoperability

- National Initiatives:
  - CommonWell - CommonWell Health Alliance is devoted to the simple vision that health data should be available to individuals and providers regardless of where care occurs. Additionally, provider access to this data must be built-in health IT at a reasonable cost for use by a broad range of health care providers and the people they serve. (Primarily EMR vendors)
  - Sequoia Project
    - The eHealth Exchange is a rapidly growing network of exchange partners who securely share clinical information over the Internet across the US, using a standardized approach. By leveraging a common set of standards, legal agreement and governance, eHealth Exchange participants are able to securely share health information with each other, without additional customization and one-off legal agreements. (Not required to connect to other members)
    - Carequality based on principles of trust that cover the legal terms, technical specifications, policy requirements and governance processes to enable interoperability. (Required to connect to all other Carequality members that want to connect.)

Current Status of Interoperability

- Local/ Regional Initiatives:
  - LACIE and Tiger Institute (University of Missouri) full Federated Connectivity
  - LACIE and Kansas Health Information Network (KHIN) limited Federated connectivity
  - Missouri Health Connection currently no connectivity with any other Health Information Organization

Issues LACIE Has Been Challenged to Resolve

- Ability to share more tailored/ granular information
- Provide data to payers they are entitled to, while having process in place that ensures information they are not entitled to is not shared
- Allow organizations to share information between them they may not want to share with other organizations
- More robust alerting of specific activity
- Ability to work around EMR vendors that may be cost prohibitive or have limited resources
- **While addressing above issues ensure that organizations have total control over their data**

SOLUTION – Development of Private Exchange

- LACIE determined best option was to implement a Private Health Information Exchange (LACIE 2.0)
- LACIE 2.0 does not replace LACIE 1.0, rather augments capabilities, provides additional solutions
- Organizations are not required to participate in LACIE 1.0 (Public Exchange) in order to take advantage of LACIE 2.0 (Private Exchange)

LACIE Has Two Options For Exchange

	LACIE 1.0 Public Exchange	LACIE 2.0 Private Exchange
Initial Implementation	October 2009	October 2015
Technical Provider	Cerner	Health Metrics Services (HMS)
Data Access/ HIPAA Compliance	Dependent on data being **"pushed"** to LACIE or copies of data being made available in edge servers; does not allow data to be normalized. **HIPAA compliance for Treatment, Healthcare Operations.**	Data is obtained through a virtual machine that has a connection directly into the participant's data base(s) that have been granted contractual permission to access, allowing data to be **"pulled"**; data can be normalized prior to being exchanged. **HIPAA compliance for Treatment, Payment and Healthcare Operations.**
EMR Vendor Engagement	Required engagement of participant's EMR vendor; additional EMR related connection costs	Not dependent on participant's EMR vendor; multiple ways to obtain data through legal methods
Ability to share very specific (granular) data only	Participation is all or none; data cannot be shared with subsets of participants	Data can be shared at a very granular level, including discrete data, reports, lab values, etc.
Payer access, filtering for allowable data	There is currently no way to filter information regarding payer access to data; not a good option for payer access	Data can be filtered to a specific payer and plan level as well as filtering out patient information that was not submitted as a claim to insurance; information can be shared in bi-directional manner; excellent venue in which to share data with payers.
LACIE Responsibilities	LACIE has both technical and administrative responsibilities	LACIE has administrative responsibilities; HMS has technical responsibilities.
Rights to participants/ patients data	LACIE/Cerner have no rights to participant's data	LACIE/HMS have no rights to participant's data.
Control over shared data	Participant has general control over what data is shared, but no control over who can access the data as long as they have a treatment relationship with the patient. No ability to partially share data.	Organizations have full control over the data that is shared, who it is shared with, and the frequency.
Ability to Participate	Must be a LACIE member to participate	Participation in LACIE 1.0 Public Exchange is not required, open to other HIO participants.
Additional Data	Currently majority of Health Information Exchanges do not share PT/OT, Dietary, Social Worker, Nursing or Respiratory notes	Private Exchange can share notes from anywhere within the EMR with permission.
Ability to share data between Public and Private Exchanges	Limited opportunity to share information from the Public Exchange to the Private Exchange	Information from Private Exchange can also be routed to the Public Exchange with permission.

What Is A Private Exchange?

- Private Exchange is a more granular way of exchanging data/ enhancing participant control
- Must adhere to all HIPAA requirements for exchange, fully auditable data trail
- Organizations and Providers have full control over the data they choose to share/ PHIE has no rights to data
  - Contractual agreements regarding:
    - Type of data to be shared – patient cohorts/ alerts/ reporting
    - Who data will be shared with – clinics/ payers/ hospitals/ ACOs/ research
    - Frequency of sharing – real time, hourly, daily, weekly, monthly

Key Considerations

- Private Exchange is a service – no legal or technical requirements that an organization also has to be a member of public exchange
- **Data is accessed through a virtual cloud based machine we refer to as a HIPAA Control Unit (HCU) that is connected directly to the participating organizations database(s) through a VPN connection that participant has full control over.**
- Data can be filtered to a specific payer and plan level as well as filtering out patient information that was not submitted as a claim to insurance; information can be shared in bi-directional manner

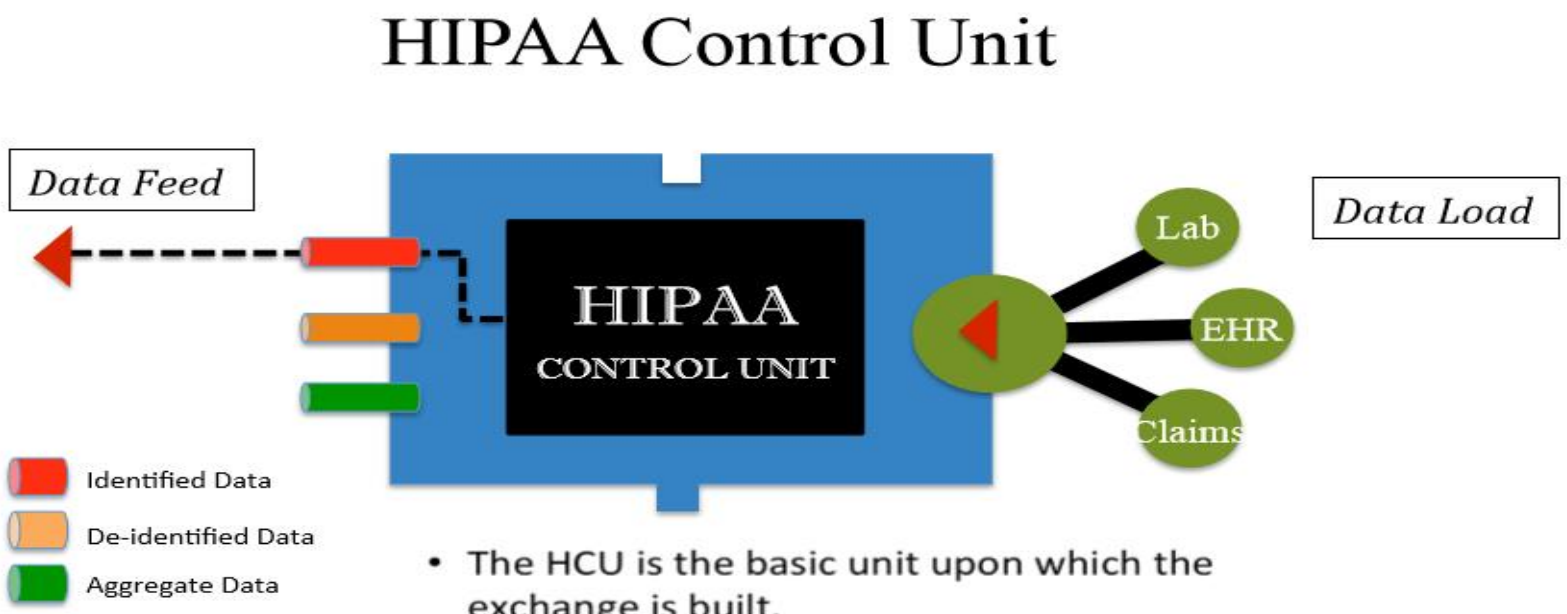
Key Considerations Cont.

- Eliminates need of interfaces from EMR vendor (Pull versus Push data gathering)
- Data can be normalized prior to being shared with selected participant(s) and can be sent to Public Exchange if requested
- Data can be shared as identified, de-identified, aggregated
- Currently vast majority of HIOs do not share PT/OT, Dietary, Respiratory, Social Worker or Nursing notes limiting the value of the HIO for Long Term Care, Skilled Nursing Facilities, Outpatient Rehab, Home Health. **Private Exchange can share notes from anywhere within the EMR with permission.**
- Private Exchange can also be used to provide information from non-EMR sources such as registration systems.

Flexibility with Private Exchange

- Data can be provided to contracted receiving organization(s) in various methods
    - HL7
    - CCD
    - CCDA
    - PDF
    - Flat Files
- Primary Barrier to Exchange is permission, not technology do to the ability to normalize data prior to exchanging

HIPAA Control Unit (HCU)



- The HCU is the basic unit upon which the exchange is built.
  - Implemented as a virtual machine.
  - Provides data normalization and quality assessment services on behalf of the legal owner of the data managed.
  - Maintains a refreshed Concepts Catalog of certified elements that are available. The catalog is extensible by the user.
  - Manages access for applications authorized to access information from the Concepts Catalog. Maintains audit logs used for accreditation.

Most organizations need only a single HCU for multiple Use Cases

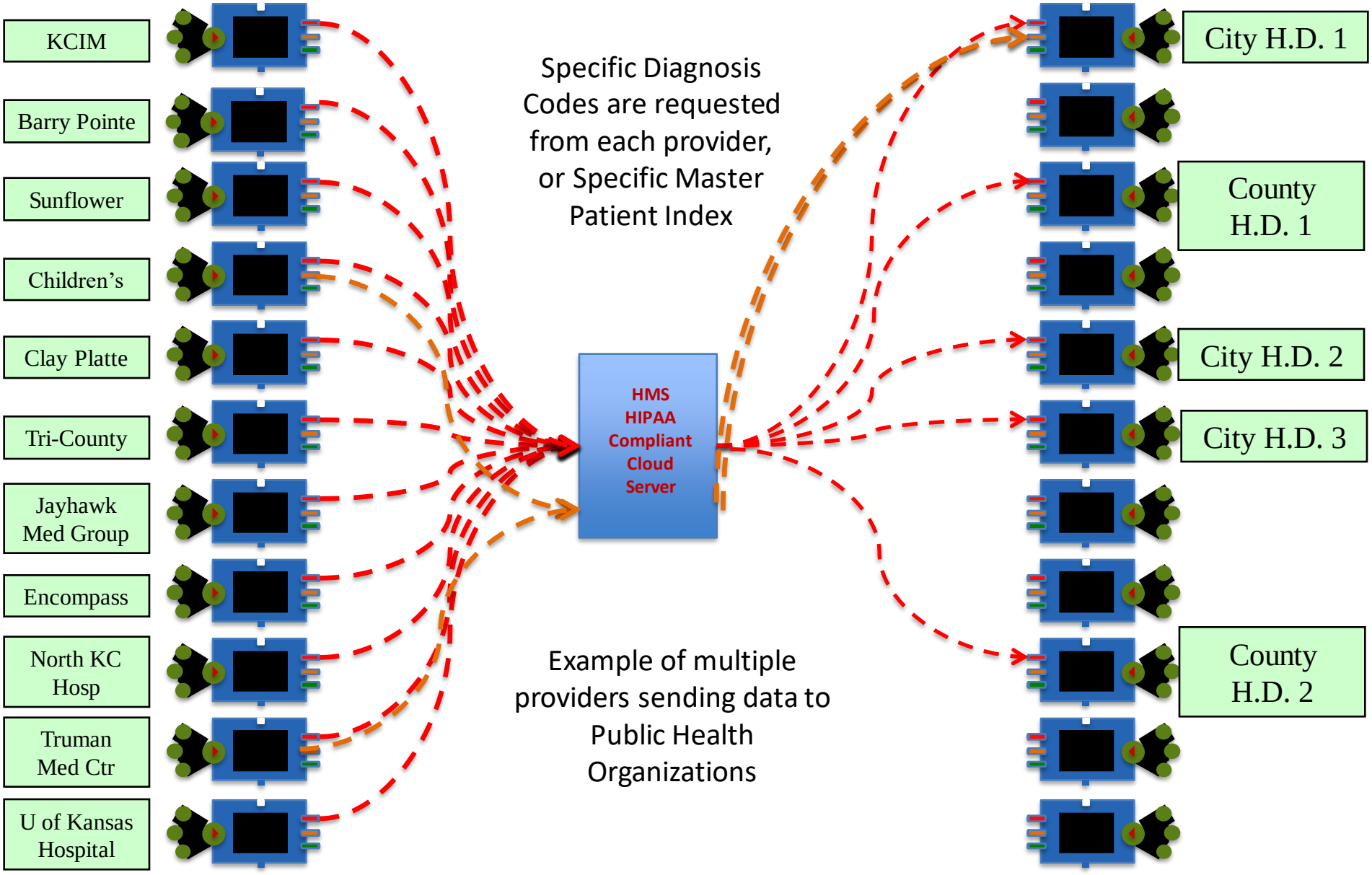
Use Case of Private Exchange - Standardization

- To simply ensure that all participants in the current exchange were sending at least the same minimum amount of information in an Admission Discharge and Transfer (ADT) message it was estimated it would take 18-24 months for all participants to comply to a standardize ADT and push to HIO. Approximately 20 different EMRs/ versions.

- With Private Exchange ADT standardization is approximately 2-3 weeks. Full onboarding 6-12 weeks. (Pull versus push, not dependent on EMR vendor work queue/ priority)

Use Case of Private Exchange - Alerts

- Community Mental Health Centers (CMHC) not aware when patients in their care present to local acute care hospitals.
- Master Patient Index (MPI) created by Private Exchange regarding CMHC patients
- Acute Hospitals “listen” for ADT activity on CMHC MPI through their HIPAA Control Unit
- Alerts are provided to applicable CMHC/ Crisis Center
- Ability to direct patient to more suitable care if applicable/ keep CMHC providers updated while maintaining confidentiality
- Ability to provide same type of service between ACOs - hospitals, providers - hospitals, providers – payers, etc…



Use Case of Private Exchange - Analytics

- Private Exchange has capacity to provide analytics at individual organizational level, or between multiple organizations providing data to centralized HCU. (Kansas Heart and Stroke Collaborative)
- Independent hospitals able to share information on patients both have treatment relationship with to assist in reducing 30 day readmissions
- Care gaps can more easily be uncovered – Private Exchange has ability to identify patient cohort based on diagnosis and or problem. Diabetes/ CHF/ etc. Then review data to see if applicable care has been documented and alert if not. Also aid to ensure physician agreement with assigned patients.
- Analytics can be broken down to Organizational/ Group/ Provider/ Support Staff level and assignments made

High Level Summarized On Boarding Process

- Pre-Contract Signing
  - Contact Lewis And Clark Information Exchange
  - Determine Connection Type
  - Determine Use Case(s) / Services
  - Determine Specific “Concepts” or Data Elements
  - Determine unique number of patients enrolled
  - Have draft agreement including Business Associate Agreement reviewed by legal counsels
  - Modify agreements and sign agreements
- Post-Contract Signing
  - Key contacts and stakeholders identified
  - On boarding time table developed, usually 6-8 weeks per connections, multiple connections can be completed at the same time
  - Implement VPN Connection
  - Test files to HMS via SFTP
  - Data tables identified for mapping
  - Tables mapped
  - Validation testing to ensure data is correctly being extracted and analyzed, x3
  - Go Live

In Summary

- **Not dependent on what Electronic Medical Record can "PUSH" to the exchange.**
- **Ability to "Pull"** permissioned/ contractual information from participants database.
- **Organizations have full control over the data they share**, with whom, frequency and length of time sharing will take place, as well as how they disseminate data internally.
- **Information exchanged can be very specific/ granular** compared to Public Exchange where information is "all in" or "all out".
- Information can be exchanged in a **variety of different formats** based on what is best for the receiving organization.
- A variety of use cases have been identified for Private Exchange/ "Granular Exchange"

Thank You For The Opportunity!

Questions?

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