Health Information Sharing & Interoperability @ Sutter Health

HIMSS State HIT Day
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Guiding Principles of Interoperability

• 5 Rights of Health Information Delivery:
  – Safe, high quality, coordinated, patient-centered care requires:
    ➢ Right Information
    ➢ Right User
    ➢ Right Time
    ➢ Right Format
    ➢ Right Functionality / Workflow

• Population Management requires the same PLUS the ability to aggregate, analyze and leverage large quantities of discrete data
Key Tools of Clinical Data Exchange

1. **Sutter EHR** – for internal users including hospitals and medical foundations, partnered community providers through **Sutter Community Connect**

2. **My Health Online** – personal health record for patients

3. **SutterLink** – access to Sutter EHR for external users

4. **Care Everywhere** – query-based exchange to link patient records and “pull” information from outside organizations’ EHRs

5. **Direct Secure Messaging** – “push” messaging for care transitions and coordination
Sutter EHR

- Live since 1999 – First Epic EMR implementation in California
- Largest single instance implementation of Epic software
- **6 million patient records**
  - **3.4 million** active patients
  - Single integrated record for each patient
  - **1.3 million** patients using *My Health Online* personal health record
- **65,000 active users**
- **24 Sutter Hospitals**
- **5,000 physicians**
  - Including **5 medical foundations** and
  - **475 independents** using *Sutter Community Connect*
SutterLink

• Web-based remote access to Sutter EHR

• 10,000 users in 1,800 practices
  – 1,300 providers
  – Office staff of Sutter hospital medical staff members

• Role-based access:
  – Clinical data access for clinicians
  – Administrative data access for support staff
  – “Grant Access” for users who require access to only specified patient records

• Referrals - Over 5,000 Referrals managed monthly
Care Everywhere

- **Epic**’s Health Information Exchange application
  - Exchange between Epic-using organizations
  - Exchange with non-Epic-using organizations
    - **eHealth Exchange** network
    - **Carequality** exchange framework
    - Direct connections with other vendor systems
  - Supports Direct secure messaging
California Epic-using Organizations

**Northern:**
- Contra Costa County
- CVS Minute Clinics
- El Camino Hospital
- Hill Physicians (2017)
- John Muir Health
- Kaiser Northern California
- OCHIN-supported clinics
- Prime Healthcare (Shasta Regional Medical Center)
- Providence Health
- Santa Clara Valley Med
- Stanford Children's Health
- Stanford
- UC Davis
- UCSF Children's Oakland
- UCSF
- Washington Hospital

**Southern:**
- Cedars-Sinai
- Community Medical Centers
- Cottage Health (10/2016)
- Kaiser Southern California
- Loma Linda
- MemorialCare
- Rady Children’s Hospital
- Riverside Medical Clinic
- Sansum Clinic
- Scripps Health (04/2017)
- UCLA
- UCSD
Sutter Health Exchange Statistics

1,900,000 Sutter Health patients with chart linkages

- 22 million records exchanged since go-live in 2010
- 12 million records exchanged in 2015

We’ve exchanged patient records with more than 880 hospitals, 1,090 emergency departments and 24,560 clinics

We’ve exchanged patient records with organizations spanning 50 states

Top Patient Record Exchange Partners In 2016

- Stanford Hospital & Clinics and University HealthCare Alliance: Sent 1,309,570, Received 789,577
- UCSF Health: Sent 666,516, Received 666,516
- Kaiser Permanente Northern California
- El Camino Hospital
- Stanford Children’s Health
- UC Davis Health System
- John Muir Health
- OCHIN
- Contra Costa County Health Services Department
- Santa Clara Valley Medical Center
Patient Links Established

150K new patient chart linkages per month
Patient Records Sent & Received

>1M records received / month

>500K records sent / month

Spike due to records sent to internal data repository
eHealth Exchange Network

• A group of federal agencies and non-federal organizations that came together to improve patient care, streamline disability benefit claims, and improve public health reporting through secure, trusted, and interoperable health information exchange

• The eHealth Exchange connects:

  - All 50 states
  - Four federal agencies (DoD, VA, HHS including CMS, and SSA)
  - 13,000 medical groups
  - 3,400 dialysis centers
  - 8,300 pharmacies
  - 40% of U.S. hospitals
  - Supporting more than 100 million patients
California eHealth Exchange Participants

• Providers
  – CVS Minute Clinic
  – Dignity Health
  – John Muir Health
  – Kaiser Permanente
  – MemorialCare
  – OCHIN
  – Stanford
  – Sutter Health
  – UC Davis
  – UCSF
  – Walgreens in store clinics

• Regional HIEs
  – Inland Empire HIE
  – Redwood Mednet
  – Santa Cruz HIE
  – San Diego Health Connect

• Government Agencies
  – Veterans Administration
  – Department of Defense
  – Social Security Administration
Carequality Exchange Framework

• A standardized, national-level interoperability framework to link data sharing networks > “network of networks”
• Any network, vendor based or not, may participate

• Elements:
  - Rules of the road – provides a trust framework that ensures free and open exchange (non-discrimination requirement)
  - Standards for query-based document exchange – spelled out in an Implementation Guide
  - Participant Directory (in progress)
Current Carequality Implementers
Carequality Focus

- **Initial Use Case:**
  - Patient query & download summary document for Treatment purposes between participating organizations

- **Current Projects:**
  - Automating directory services
  - Sharing patient authorization status
    - E.g., behavioral health information
  - Sharing imaging content
Direct Secure Messaging

- A product of The Direct Project, a nationwide effort supporting secure, standards-based, health-related messaging for providers, laboratories, hospitals, pharmacies and patients

- Direct utilizes Health Information Service Providers (HISPs) to send messages and attachments between users with a Direct address

- Live at Sutter since May, 2014 to support Meaningful Use requirement to electronically send patient summary documents at the time of “Transitions of Care” including inpatient discharges and outpatient referrals

- Also allows providers to manually send patient-specific messages from an EHR or other application to support care coordination
Provider Directories

• 10,000 Sutter Health and Community Connect providers currently able to send and receive Direct messages

• 250,000 external providers and locations to which Sutter users can send Direct messages, including:
  – Epic-using organizations that have shared their directories
  – Other users of the Surescripts HISP
  – Manually downloaded directories from external organizations
Sutter Health Direct Message Volume

Increases reflect other organizations beginning to receive and send messages:
- Dignity Health
- Hill Physicians
- Safeway, CVS pharmacies
Drowning in Data

- **Outside Records**
  - Summaries from each linked org
  - Encounter Documents
  - Lab and Other Results

- **In Basket Notifications**
  - Outside Messages
  - Outside Events

- **Discrete Data**
  - Allergies
  - Problems
  - Medications
  - Immunizations
  - Labs, procedures, care gaps
Advancing Care Information

- Proposed **Stage Meaningful Use 3 HIE Objectives** included in the **Advancing Care Information (ACI)** score as part of the new **Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)** Quality Payment Program

- Health Information Exchange Measures:
  1. Exchange information with other physicians/clinicians
  2. Exchange information with Patients
  3. Clinical information reconciliation

- **ACI Base Score**: All or nothing – Numerator must be at least 1 for each measure

- **ACI Performance Score**: Scored on each measure for Transitions of Care:
  - Sending provider creates and electronically exchanges a summary of care record
  - Receiving provider seeing a new patient incorporates an electronic summary of care document into the patient's EHR
  - Receiving provider seeing a new patient performs clinical information reconciliation for Problems, Medications, and Allergies
Data Usage and Reconciliation Take Aways

• Sutter clinicians have the ability to exchange clinical data with many external providers and organizations

• The availability and usability of external data is dependent on system capabilities and decisions made at each organization

• Workflows and training need to evolve to engage clinicians to:
  – Access outside data at the point of care
  – Reconcile outside data with the data in the local EHR
  – Utilize Direct messaging to support care transitions and coordination

• Need more automated and efficient processes to retrieve, integrate, and utilize external data to:
  – Inform clinicians at the point of care
  – Succeed in new payment models requiring population management
  – Satisfy new MACRA Advancing Care Information objectives
Summary

• Sutter Health is at the forefront nationally in our adoption and use of technologies to support electronic health information sharing and interoperability.

• Clinicians using the Sutter EHR have extensive and increasing access to clinical data from a variety of sources and the ability to securely exchange clinical information with providers outside our organization.

• Current challenges include:
  – Educating clinicians regarding available data and tools
  – Streamlining the process of accessing and managing outside data from multiple sources
  – Extracting and deriving value from external data
  – Working with vendors and other provider organizations to increase the efficiency and value of information exchanged.