Health Information Exchange

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What is a Health Information Exchange?

- The technology infrastructure for moving healthcare information electronically based on national standards:
  - Across Organizations
  - Within a Region (city, county, state, nation, global)
  - Within a Community
  - Hospital Systems
Designed to:
- Move clinical information among disparate health care information systems
- Facilitate access to and retrieval of clinical data to provide safer, more timely, efficient, equitable, patient/client centered-care.
- Not an EHR
Key Drivers

- Health Care Reform / Patient Affordable Care Act (ACA)
- Health Information Technology for Economic & Clinical Health (HITECH) Act
- Meaningful Use of Certified Electronic Health Records (EHR) – Stage 2 coming soon
- Integration between physical and behavioral health
Key Drivers

* Clinical models like Stanford disease management and WHAM
* Collaborative Care
* Development of Health Home Concept
* Performance Contracting
* Maricopa County ADHS/DBHS RFP
The Vision

- Patient
- Hospital/Health Systems
- Behavioral Health
- Pharmacy
- Laboratory
- PCP/Specialist

Health Information Network of Arizona

BHINAZ Private and Confidential
Public Versus Private HIE

**Public**
- Availability and efficient distribution of a large volume of patient data
- Efficient exchange of standards-based data (CCD, IHE, etc.)
- Gateway to the National Health Information Network
- Arizona’s HINAZ

**Private**
- Coordination of care among the providers in a community – workflow improvement
- Connecting systems and users with different technical capabilities and workflow needs
- Access to the community patient chart
- Business intelligence service to optimize pay-for-performance and quality improvement
- Support for emerging integrated delivery networks
Value of a Community-Owned Health Information Exchange

- Offers additional services
  - EHR Light – This value add would give providers the ability to document within the HIE at an additional cost.
  - Additional costs for expanded EHR light services:
    - Portal Lab Ordering - eLabs
    - SureScripts/RxHub - ePrescribing
    - Basic Individual Referral Management
  - Closed Loop Referral Management
Offers additional services (continued)

- Special Report/Data Analytics
- Annual Dashboard Service
- Population Management
- Patient Portal
- Secure Messaging (Direct)
HIE Data that can be shared

* demographics (Name, date of birth, address, social security number, marital status, sex, and age)
* diagnosis
* allergies
* prescribed medications
* lab results
* documents (including progress notes, treatment plans, patient summary, discharge report, crisis plans, etc.)
Structured Data to Exchange

Demographics

Labs

Medications

Diagnosis

Allergies
Documents to Exchange

Individual Service (Recovery) Plans

- Safety Plans
- Crisis Plans

Discharge & Transition Plans

- Comprehensive Assessments
- Psychiatric Progress Notes
- Psychiatric Evaluations
Patient Data Notification

- Hospital System
- Lab
- Nursing Home
- Home Care
- Ambulance Service
- BH Provider
- Crisis System
- Primary Care Provider
- Outside HIE

Client admitted into hospital

Discharge Report

Chart Summary

Discharge Report

Discharge Report

Discharge Report
**HIE Benefits**

<table>
<thead>
<tr>
<th>Improve patient safety by reducing medication and medical errors</th>
<th>Increase efficiency by eliminating unnecessary paperwork and handling</th>
<th>Provide caregivers with clinical decision support tools for more effective care and treatment</th>
<th>Eliminate redundant or unnecessary testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve public health reporting and monitoring</td>
<td>Engage healthcare consumers regarding their own personal health information</td>
<td>Improve healthcare quality and outcomes</td>
<td>Reduce health related costs</td>
</tr>
</tbody>
</table>

HIE Cost Savings

- Reduced staff time spent on handling lab and radiology results (90%)
- Reduced staff time spent on clerical administration and filing (40%)
- Payers Reduced duplicative procedures (50%)
- Reduced hospitalizations for chronic disease patients (10%)
- Reduced avoidable Adverse Drug Events (ADEs) 10%
The Network

* Behavioral Health Providers
* State HIE
* RBHA HIE
* Patients and Consumers
* Advocacy Groups
* Public Agencies
* Primary Care
* Laboratory Companies (LabCorp, Sonora Quest, etc.)
* SureScripts/RxHub
* Specialists
* Hospital Systems
BHINAZ Subscription Services

* **Basic HIE Web-Portal Access** - Basic access to online patient community health record

* **Enhanced HIE Web-Portal Access** – Access to online patient community health record with additional enhanced reporting features, and ordering and viewing lab result data

* **Integrated EHR Interface Access** – Bi-Directional interface between certified electronic health record (EHR) and BHINAZ HIE

* **Provider Closed-Loop Referral Management**

* **Public and Private HIE Integration**
Value Add Services

- Group Closed-Loop Referral Management
- Lab Ordering and Results Module
- Data Analytics and Reporting
- Real-Time Dashboard Reporting
- Tools for Population and Disease Management
- Advanced Care Coordination & Clinical Decision Support
- IDN Contracting
- Payer Source Connections
Technology & Infrastructure

NextGen Health Information Exchange Solution

- Clinical Data Repository (CCD/CCR/HL7)
- Master Patient Index
- Consent Management
- Provider & Resource Directory
- Data Analytics & Reporting
- Interface Consolidation & Simplification
- Orders & Medication Reconciliation
- Secure, Web-Based Portal Access
- Security, Auditing & Network Management
- Population Management (In Development)
- Support Core Integrated Healthcare Enterprise (IHE) Profiles
- Individual Referral Management
HIE Demo

Behavioral Health
Information Network of Arizona
Consent Management
Opt In vs. Opt Out

**Opt Out**
- Patient must OPT OUT
- Otherwise, they are Opted IN by default

**Opt In**
- Patient must OPT IN
- Otherwise, they are Opted OUT by default
The HIE will have a robust consent management platform that will protect the patient’s information in an electronic format.

### Consent Manager

**Client: John Doe**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Receive Opt In all</th>
<th>Publish Opt In all</th>
<th>Emergency Access Opt In all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice A</td>
<td>☐ Yes</td>
<td>☐ Yes</td>
<td>☑ Yes</td>
</tr>
<tr>
<td>Practice B</td>
<td>☐ Yes</td>
<td>☐ Yes</td>
<td>☑ Yes</td>
</tr>
<tr>
<td>Practice C</td>
<td>☐ Yes</td>
<td>☐ Yes</td>
<td>☑ Yes</td>
</tr>
<tr>
<td>Practice D</td>
<td>☐ Yes</td>
<td>☐ Yes</td>
<td>☐ Yes</td>
</tr>
</tbody>
</table>

Authorized by: ____________________________________________
Client Data

NextGen to HIE

A. Client Data
   I. Patient Name
   II. Address
   III. Phone Number
   IV. Email Address
   V. Gender
   VI. SSN
   VII. DOB
   VIII. Marital Status
   IX. Race
   X. PCP

B. Medications
C. Allergies
D. Diagnosis
E. Encounters (as a part of the exchanged data)
F. Labs
G. Templates (Referral Only)
H. Patient Images (Referral Only)
I. ICS Images (Referral Only)
J. Documents (Referral Only)

Information that will cross in the Data Import and Referral processes.
If data has been added to a patient chart that exists in your practice, there are two ways that data will flow into the chart from HIE:

1. Searching for a patient and opening an encounter or;
Clinical Data Import

A task notification that will show in the EHR “Inbox”
The patient chart is open and the “HIE Clinical Data Import” template will display by default.
Clinical Data Import

HIE documents from participating entities will show in the chart.
Clinical Data Import

Documents from other organizations will have the organization ID in front of the document name and the documents will be formatted with agencies logo.
Medications will also download. Notice that the Provider is showing as “CHS” in all of data elements downloaded from the HIE.
Clinical Data Import

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Onset/Sympt</th>
<th>Resolved</th>
<th>Type</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/26/2013 02:58 PM</td>
<td>BANANA</td>
<td>06/26/2013</td>
<td>00:00:00.000</td>
<td>Base Ingre...</td>
<td></td>
</tr>
<tr>
<td>06/26/2013 02:20 PM</td>
<td>TALC</td>
<td>06/20/2013</td>
<td>00:00:00.000</td>
<td>Base Ingre...</td>
<td></td>
</tr>
</tbody>
</table>

Allergies will also download. “CHS” is listed as the provider.
Clinical Data Import

Diagnosis will download showing “CHS” as provider.
This information may also be viewed by opening the “HIE Clinical Data Import” Template and clicking “Refresh”. This shows the information imported in one location.
HIE Referrals

HIE Referrals between Community Providers
A completed “CHS Referral Item” Template with the pertinent information needed for the referral.
The “HIE Multi-Referral Plan” Template with the entity that the referral is going to be sent to and the time the referral was sent added by the system automatically.

<table>
<thead>
<tr>
<th>Specialist Site</th>
<th>SpecialtyName</th>
<th>Specialist Last</th>
<th>Specialist First</th>
<th>Referring Physician First</th>
<th>Referring Physician Last</th>
<th>ReferralNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Care Network</td>
<td>CHILDREN'S PNO</td>
<td>QCN</td>
<td>Children's PNO</td>
<td>Children's PNO</td>
<td>JFCS</td>
<td>157</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referral steps</th>
<th>Description</th>
<th>Date Performed</th>
<th>Time Performed</th>
<th>ReferralNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Order Reviewed</td>
<td></td>
<td></td>
<td>157</td>
</tr>
<tr>
<td>2</td>
<td>Authorization Required</td>
<td></td>
<td></td>
<td>157</td>
</tr>
<tr>
<td>3</td>
<td>Patient Notified</td>
<td></td>
<td></td>
<td>157</td>
</tr>
<tr>
<td>4</td>
<td>Sent to Portal</td>
<td>06/28/2013</td>
<td>03:10:35 PM</td>
<td>157</td>
</tr>
<tr>
<td>5</td>
<td>Recipient Notified</td>
<td></td>
<td></td>
<td>157</td>
</tr>
<tr>
<td>6</td>
<td>Recipient Imported</td>
<td></td>
<td></td>
<td>157</td>
</tr>
<tr>
<td>7</td>
<td>Appointment Scheduled</td>
<td></td>
<td></td>
<td>157</td>
</tr>
<tr>
<td>8</td>
<td>Patient Treated</td>
<td></td>
<td></td>
<td>157</td>
</tr>
<tr>
<td>9</td>
<td>Referral Completed</td>
<td></td>
<td></td>
<td>157</td>
</tr>
</tbody>
</table>
At the “Referred To” clinic, the inbox will have a task with the referral. Click on the referral, select “Accept” and open the chart.
The “HIE Referral Plan Follow Up” template opens in a new chart with client information sent in the referral.
Referral Workflow – Referred To Site

The encounter created from the referral.
A quick glance at all the information that came over in the referral.
### Referral Workflow – Referred To Site

To close the loop on the referral, go back to the “CHS Referral Response” template, click “Close Referral”. The “Referral Completed” line will fill in the date and time this was completed.

<table>
<thead>
<tr>
<th>ReferralNumber</th>
<th>Description</th>
<th>DatePerformed</th>
<th>TimePerformed</th>
<th>StepNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>157</td>
<td>Order Reviewed</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>157</td>
<td>Authorization Required</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>157</td>
<td>Patient Notified</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>157</td>
<td>Sent to Portal</td>
<td>06/28/2013</td>
<td>03:10:35 PM</td>
<td>4</td>
</tr>
<tr>
<td>157</td>
<td>Recipient Imported</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>157</td>
<td>Appointment Scheduled</td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>157</td>
<td>Patient Treated</td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>157</td>
<td>Referral Completed</td>
<td>06/28/2013</td>
<td>03:30:51 PM</td>
<td>9</td>
</tr>
<tr>
<td>157</td>
<td>PCP Notified</td>
<td></td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>
Also, on the “Referring” side, the “Sent to Portal,” “Referral Completed” and “PCP Notified” fields are automatically completed in the referral process. That completes the Referral Process.
Questions?