NIST Health IT Symposium Series
Status, Challenges, and Progress to Date

September 27th, 2012
CRISP Mission and Vision

**Mission**
To advance the health and wellness of Marylanders by deploying health information technology solutions adopted through cooperation and collaboration.

**Vision**
We will enable and support the Maryland healthcare community to appropriately and securely share data in order to facilitate care, reduce costs, and improve health outcomes.
Early national HIE strategy shaped by David Brailer (first US HIT Coordinator appointed in 2004 by President Bush) and Santa Barbara HIE experience

Early strategy was supportive of state and regional efforts setting up federated HIE networks, however, ONC remained a poorly funded office within HHS

Over subsequent Coordinators (including Robert Kolodner) national strategy shifted to focus on development of a network of networks linked together relying on National Health Information Network standards and policies (NHIN itself is not actual infrastructure)

Under David Blumenthal’s ONC, this strategy led to the development of an open source instantiation of the NHIN standards called CONNECT. These models largely focused on the concept of query-based HIE - collecting encounter records into repositories clinicians could later access.

Then HITECH happened…..
About $700M of the HITECH funds went directly to statewide HIEs such as CRISP, jumpstarting the efforts.

After HITECH, HIE’s positioned themselves as a tool to achieve “Meaningful Use”; the business model was to charge providers a fee as you help them earn a piece of the new incentives.
Government Mandates

THANKS TO A NEW LAW, EVERY CUSTOMER IN MY SALES TERRITORY NEEDED TO UPGRADE.

NOW I WEAR A HAT MADE OF MONEY. THE FUNNY THING IS THAT I'M NOT EVEN A GOOD SALESMAN.

NEXT WEEK, THE DONUTS ARE ON ME.

DIE! DIE! DIE!
Meaningful Use and Where HIE Fits Today

- Some HIE effort suffered from the “dog caught-up to the mailman” syndrome.

- Across the country, progress of HIE as a reliable infrastructure was uneven. Some north-eastern states made good progress, but many states were getting nowhere.

- As ONC and CMS evaluated where HIE should fit within larger MU strategy, they decided to focus on Directed exchange of clinical information, analogous to existing workflows … HIE wouldn’t be required.

- The central theme of this decision was avoidance of the technical, legal, and relationship complexities of query-based HIE and focus on a simple standard (basically secure email) which could be ubiquitously adopted. When paired with MU CDA documents, much could happen…

- Supporting transitions in care (relying on CDA templates) through Directed exchange is currently the heart of an evolving national strategy.
CRISP funding to date has largely been grant based

CRISP is currently collecting hospital participation fees

The CRISP sustainability plan calls for operating expenses to be distributed across 3 customer-bases; hospitals, payers, and public sources
Without mandate, CRISP has found most levels of inbound and outbound integration with ambulatory EMRs a difficult target to achieve.

1. Transport Interoperability (e.g. VPN, SFTP)

1. Message Interoperability (e.g. CDA, HL7)

1. Semantic (Vocabulary) Interoperability (e.g. LOINC, SNOMED, ICD)

2. Process Interoperability (workflow)

The enemy of interoperability is optionality and lack of specificity….what we are doing today is largely widespread connectivity, not interoperability….
The Challenge: accurately and consistently linking identities across multiple facilities to create a single view of a patient.

A zero or near-zero tolerance of a "false positive" match with a low tolerance of a "false negative" match.

Accurate cross-entity patient identity management is a critical function for an HIE to serve multi-organizational reform initiatives.
Connectivity Progress to Date
Updated Sept 18th, 2012

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<th>Progress Metric</th>
<th>Result</th>
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<tr>
<td><strong>Organizations Live</strong></td>
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<tr>
<td>Hospitals (Total 48)</td>
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<tr>
<td>Hospital Clinical Data Feeds (Total 143 - Lab, Radiology, Clinical Docs)</td>
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<td>Radiology Centers (Non-Hospital)</td>
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<td>Opt-Outs</td>
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<td>Queries (Past 30 Days)</td>
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<td>Lab Results</td>
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<td>Radiology Reports</td>
<td>~5M</td>
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<tr>
<td>Clinical Documents</td>
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Current Focus Areas

1. Query Portal Growth
2. Direct Secure Messaging
3. Encounter Notification System (ENS)
4. Encounter Reporting System (ERS)
5. Health Benefits Exchange integration
The CRISP Query Portal can make clinical information available

- Access must be part of a treatment encounter or approved use case
- Web-based application with credentials issued by CRISP
- The current workflows are difficult

Key Challenge / Lesson Learned: The depth of data, the breadth of data, and the geographic diversity of data must be significant to reach the “tipping point” in query

Types of Data Available

- Patient demographics
- Lab results
- Radiology reports
- Medication fill history
- Discharge summaries
- History and physicals
- Operative notes
- Consults
CRISP Infrastructure Overview
DHMH and the PDMP team have been actively interested in partnering with CRISP on Maryland’s PDMP technology solution.

CRISP can play an important role in ensuring controlled dangerous substance (CDS) data is incorporated into a single source of external clinical data for providers (rather than a stand-alone PDMP portal).

- If Maryland does push ahead with PDMP, we are eager to use the CRISP query portal to provide access to physicians, believing a two-portal solution would be bad for everyone.

We will be working closely over the coming weeks with our partners, including Optum, to evaluate capabilities to support the program.
Direct Secure Messaging Usages:

• To communicate referrals and visit summaries between Ambulatory practices

• To send relevant patient clinical information between ambulatory practices and hospitals

• To make formal medical records requests from Ambulatory practices to the hospital

• To receive encounter alerts from CRISP’s Encounter Notification System when a patient is hospitalized
ENS went live on August 3rd with practices at three hospital partners
- Harbor Hospitals, St. Josephs, GBMC, and JHCP

Roughly 6000 messages per month are current triggered

Subscribers submit a patient panel to CRISP and identify which types of alerts they would like to receive

Phase 1 notifications only include demographic information and the event types; including chief complaint and discharge diagnosis could increase the value of the service significantly.
Inter-hospital readmission reports have been distributed to half of Maryland hospitals.

CRISP is working with hospital to address variation admission data produced by financial data versus that which we receive from registration systems – THIS IS A MAJOR CHALLENGE.

CRISP has generated a series of proof-of-concept GIS maps to visualize utilization as hot-spots.

This capability could be valuable to public health officials as well as to hospitals.
CRISP was included in the HBE Level 2 funding request to support 3 specific services:

1. Provider Information Management
   - Partnering with Optum, CRISP will offer a verified provider demographics source (fed by the HBE Qualified Health Plans) to enable HBE customers to search for plans by providers in the network.

2. Master Patient Indexing Services for the All Payer Claims Database
   - Relying on the Initiate MPI, CRISP can enable insights into member churn between QHPs and Medicaid plans as member eligibility status changes over time.

3. Clinical Summary Care Coordination Service
   - Based on a triggering event, CRISP will compile a time-banded summary of data (starting with just encounter data) to forward to care coordinators.
Questions