Implementing an Integrated PDMP & HIE in Maryland

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Background:
HIE in Maryland
Chesapeake Regional Information System for our Patients (CRISP)

**CRISP** is MD’s statewide health information exchange (HIE) and Regional Extension Center (REC)

- **Health Information Exchange** allows clinical information to move electronically among disparate health information systems. The goal of HIE is to deliver the right health information to the right place at the right time—providing safer, more timely, efficient, effective, equitable, patient-centered care.

- **Regional Extension Center** is a program created by the ONC that is funded through the stimulus bill. RECs will offer technical, implementation, and educational assistance to facilitate providers’ adoption and meaningful use of electronic medical records (EMRs).
CRISP Background

• 2007: designated statewide HIE by MD Health Care Commission

• 501(c)3 nonprofit corporation

• Consortium of MD’s prominent health systems (Johns Hopkins, UMD, MedStar, Erickson) with gov./community representation on boards

• Received $20+ million in state and federal funding to implement HIE & REC
CRISP Health Information Exchange

**CRISP Web-Based Portal**
- Patient demographics
- Lab results
- Radiology reports
- Electronic Reports (discharge summaries, history and physicals, operative notes, consults)
- Medication fill history
- Prescription Drug Monitoring Program Data

**Encounter Notification Service**
- Real-time notification to provider of patient hospital admission
- Increases coordination of care and improves follow-up care
- Reduces hospital re-admissions

**Encounter Reporting Service**
- Inter- and intra-hospital readmission reports

**Public Health Reporting**
- Stage 2 ongoing reporting of Public Health Meaningful Use measures to the State
## Connectivity Progress to Date

<table>
<thead>
<tr>
<th>Progress Metric</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizations Live</strong></td>
<td></td>
</tr>
<tr>
<td>Hospitals (Total 48)</td>
<td>47 (1 non-acute)</td>
</tr>
<tr>
<td>Hospital Clinical Data Feeds (Total 134 - Lab, Radiology, Clinical Docs)</td>
<td>100</td>
</tr>
<tr>
<td>National Labs</td>
<td>2</td>
</tr>
<tr>
<td>Radiology Centers (Non-Hospital)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Identities and Queries</strong></td>
<td></td>
</tr>
<tr>
<td>Master Patient Index (MPI) Identities</td>
<td>~5.4M</td>
</tr>
<tr>
<td>Notification</td>
<td>~34,000/month</td>
</tr>
<tr>
<td>Queries (Past 30 Days)</td>
<td>~14,700/month</td>
</tr>
<tr>
<td><strong>Individual Records Available</strong></td>
<td></td>
</tr>
<tr>
<td>Lab Results</td>
<td>~29M</td>
</tr>
<tr>
<td>Radiology Reports</td>
<td>~8M</td>
</tr>
<tr>
<td>Clinical Documents</td>
<td>~4M</td>
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</tbody>
</table>
Background: PDMP in Maryland
Early Legislative Attempts

Opposed by MedChi, MD’s largest medical society:

- PDMP = law enforcement program
- Chilling effect on legitimate Rx
- Costly and ineffective
- “Stand alone” programs not integrated with existing systems, won’t be used by providers
Maryland’s 1\textsuperscript{st} PDMP bill

Governor’s Veto Statement:

“HB1287 could have a chilling effect on providers prescribing pain management. Prescribers are already fearful of inappropriate or unfounded scrutiny of their prescribing practices. The provisions of this bill may exacerbate untreated or inadequately treated pain management. Unfortunately, this bill focuses on law enforcement, not treatment.”
“The statewide HIE (health information exchange) provides an efficient approach to implementing a secure system that prevents abuse, trafficking and diversion of controlled substances, and is an invaluable information source for providers and the public on trends in the use and abuse of prescription drugs.”
Maryland’s PDMP enabling legislation

- Legislative intent: public health focus; PDMP as clinical tool
- Barriers to investigative use (subpoena, Technical Advisory Committee review)

DHMH required to consult with Maryland Health Care Commission on PDMP IT

- Discussions w/ MHCC, CRISP, ONC & others begin autumn, 2011
- Identify potential benefits & barriers to PDMP/HIE integration
PDMP/HIE Integration
Potential Benefits

1. Increase provider utilization of PDMP data:
   - CRISP’s focus on provider needs/ease-of-use
   - Access to CDS Rx & other clinical info thru 1 portal
   - Unified user registration, authentication & credentialing
   - Combine resources for promotion & education

2. Improve accuracy/usefulness of PDMP data:
   - Use CRISP Master Patient Index (MPI) for unique patient ID

3. Reduce cost and achieve sustainability:
   - Leverage existing HIE infrastructure
   - Pursue collaborative funding strategies
Potential Barriers

1. Perception of PDMP as law enforcement program – would the HIE manage investigative requests?

2. HIE opt-out policy

3. IT approach: systems integration vs. procurement

4. Unknown costs
CRISP policy: patient may opt-out clinical data query

No legal opt-out from authorized access to PDMP data

Original HIE vendor: opt-out implemented at front end of query = limited flexibility to display PDMP data on opt-out patients in unified view

New HIE vendor (Mirth): consolidated/seamless view
IT Implementation/Procurement

**Issues/Considerations:**

- CRISP: no existing capability/resources for managing data collection from 1600+ pharmacies
- Integration with “switch” networks not practical in required timeframe
- DHMH procurement for data collection? State would be middle man between contractor & CRISP

**Approach Adopted:**

- State funds CRISP for all PDMP IT services
- CRISP contracts with vendor for data collection & other PDMP-specific services (2012 RFP => Health Information Designs)
- HID: dispenser reporting
Investigative vs. Clinical Use

Clinical Users (prescribers, dispensers, practitioner delegates)

- CRISP registers, authenticates & credentials
- Access data through CRISP HIE web portal
- CRISP provides user support, training & outreach
- Pharmacists access PDMP data only

Investigative Users (LE, licensing boards, DHMH agencies)

- HID registers, authenticates & credentials
- Submit requests & retrieve reports through RxSentry
The Challenge:

- Accurately and consistently link identities across multiple facilities to create a single view of a patient.
- A near-zero tolerance of a false positive match rate with a low tolerance of a false negative match rate.
- Accurate cross-entity / cross-source patient identity management is a critical for an HIE to function with the trust of its participants.

To Date:
CRISP has approximately 5.4 million unique patient identities
Return patient PDMP & clinical data using same unique patient ID logic

HID/CRISP integration must allow for linking/un-linking of records based on CRISP ID

Possible public health secondary data use: link patients identified by PDMP data analysis with hospitalizations and other healthcare system contacts through common CRISP ID #
Implementation Timeline

- May 29: notification letter sent to dispensers
- July 29: dispenser registration opens; retro reporting to 1/1/2013 requested
- August 20: periodic dispenser reporting begins
- September 26: disclosure to pilot HIE clinical users begins
- Late October: open registration for clinical users
- November: investigative queries
- 2014: interstate data sharing
Year 1 (Implementation period): estimated <$500k
QUESTIONS?

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