HIE READY
Health information exchange from any system
What is the problem?

- Physicians are not IT professionals.
  - Focused on seeing patients and meeting meaningful use requirements.

- Meaningful Use does not promote interoperability.
  - Focused on capturing structured data.

- EHR vendors find interfaces a distraction.
  - Interoperability does not sell EHRs to EPs.
What is the result?

- No “single standard” for data.
  - Every interface is different.
- Interface data variability is high.
  - Every interface requires analysis.
  - Ever installation has its own interoperability specifications.
- Causes labor-intensive analysis and design that slows down access to interoperability.
  - Backlog for EHR interfaces can be months long.
  - Custom interfaces increase cost of “simple” interoperability.
  - Creates a data divide – large organizations get interoperability first, smaller organizations have to wait.

Ultimately, providers don’t know how to buy interoperability, and EHR vendors don’t know how to sell it.
What is the result?

The unintended consequence of Stage 1 Meaningful Use is EHRs are creating data silos.

*Data goes in, but it doesn’t go out.*
How about Stage 2?

- Stage 2 adds critical requirements for interoperability.
- Stage 2 further constrains some standards.
- Stage 2 comes too late for many providers.
  - Many will already have spent their EHR incentives and cannot afford the time or cost of an upgrade.

But it’s not happening in 2011!
How do we address the problem?

Create “HIE Ready”

A common set of interface and interoperability capabilities agreed upon by vendors and stakeholders and deliverable today.
What was our approach?

- Start with what is available today.
- Clarify options in existing standards.
- Allow HIE to take responsibility for content mapping, not the EHR vendor.
- Let the market drive things forward.
What is HIE Ready?

- Set of capabilities that define interoperability.
  - Starts with Stage 1 MU.
  - Adds specificity where there are options or ambiguities.
  - Paves the way for Stage 2.

- Statement that capabilities are supported.
  - Built upon common standards.
  - Must be available in a shipping product.

- Commitment to offer interoperability…
  …as a single, orderable “part number”
  …with a quoted price.

- Agreement that interoperability is everyone’s responsibility…
  …but that creating interfaces is HIE’s job.
What is HIE Ready NOT?

- Not a set of requirements.
  - Not asking vendors to support every capability, just be transparent in what they support.

- Not a requirement to support emerging standards.
  - California is committed to emerging standards.
  - HIE Ready is not an alternative, but compliments these efforts.

- Not even preferred pricing.
  - Interoperability need not be free, but you must disclose how much it costs.
What does it do?

- Creates transparency.
  - You know what a product supports, today.
  - You know what interoperability will cost.

- Makes it easier to buy interoperability.
  - Providers need not educate themselves on every standard.
  - Creates language that might be used for a contract with a vendor.

- Reduces costs.
  - Reduces the need for analysis and custom interfaces.

- Creates uniformity.
  - Everyone supports the same thing.

- Allows EHR vendors to concentrate on functionality.
What does it include?

- “Set of capabilities that define interoperability…”
  - A matrix of 57 capabilities that cover:
    - ADT messages and patient demographics.
    - Lab results, radiology reports, and encounter notes.
    - Lab and radiology orders.
    - Referrals and appointments.
    - Care summary exchange using CCDs.
    - Reporting of immunizations and lab results for reportable conditions.
  - Versions (so far) for ambulatory EHR vendors, in-patient EHR vendors, and HIOs.

- Pricing for everything supported.
What does it look like?

Appendix B: Ambulatory EHR

The preferred version of HL7 that California is focused on supporting is version 2.5.1. We recognize that not all vendors currently support this version, so we are also accepting, at this time, interfaces which conform to the HL7 version 2.3.1 specification. In the right-hand column we are asking the vendor to list:

- YES, as Shown (Give Version)
- Message, Version, & Trigger?
- If not now, when?

If you produce or consume the message with the trigger shown, please indicate which HL7 version.

Section 1: HL7 Messages Inbound to EHR

The EHR receives and consumes from the HIS (or others) properly formatted HL7 ADT, MDM, ORU, REF, RRL and SPM messages of version 2.3.1, 2.5.1, or 3.1 as noted. Messages may be consumed in different ways depending on the EHR’s operation and workflows. It is not the intention of this specification to be prescriptive on how these messages will be consumed, only that they be received and used in a manner that fits with the EHR’s intended workflows.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Preferred Message &amp; Trigger</th>
<th>Do You Consume this Message?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>Receive ADT Messages</td>
<td></td>
</tr>
<tr>
<td>A.1.1</td>
<td>ADT* AD01 Hospital Admission</td>
<td></td>
</tr>
<tr>
<td>A.1.2</td>
<td>ADT* AD01 Hospital Discharge</td>
<td></td>
</tr>
<tr>
<td>A.1.3</td>
<td>ADT* AD01 Emergency Registration</td>
<td></td>
</tr>
<tr>
<td>A.1.4</td>
<td>ADT* AD01 Demographic Update</td>
<td></td>
</tr>
<tr>
<td>A.1.5</td>
<td>ADT* AD01 Patient Merge</td>
<td></td>
</tr>
<tr>
<td>A.2</td>
<td>Receive HL7 Lab Results as Structured Data</td>
<td></td>
</tr>
<tr>
<td>A.2.1</td>
<td>ORU* R01 Store discrete value and text fields</td>
<td></td>
</tr>
<tr>
<td>A.2.2</td>
<td>Can consume LOINC test and analyze codes (required for Public Health NV reporting)</td>
<td></td>
</tr>
</tbody>
</table>
**What does it look like?**

<table>
<thead>
<tr>
<th>Vendor or Organization (Product name in italics)</th>
<th>HIE READY Capabilities</th>
<th>Relative Cost</th>
<th>California Connects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulatory EHRs [1]</td>
<td>ADT/ Demographics</td>
<td>Lab &amp; Rad Results, Notes</td>
<td>Lab &amp; Rad Orders</td>
</tr>
<tr>
<td>Vendor 1 Product version X</td>
<td>●●</td>
<td>●●</td>
<td>●●</td>
</tr>
<tr>
<td>Vendor 2 Product version X</td>
<td>●●●</td>
<td>○</td>
<td>●●</td>
</tr>
<tr>
<td>Vendor 3 Product version X</td>
<td>?</td>
<td>○</td>
<td>●●</td>
</tr>
<tr>
<td>Vendor 4 Product version X</td>
<td>○</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Vendor 5 Product version X</td>
<td>●●●</td>
<td>●</td>
<td>●●</td>
</tr>
</tbody>
</table>

HIO 1

| HIO 2 | ●●● | ●●● | ●●● | ●●● | ●●● | ●●● | ●●● | ? | ● |
| HIO 3 | ●●● | ●● | ○ | ● | ● | ● | ● | ? | ● |
| HIO 4 | ●● | ●● | ●● | ●● | ●● | ● | ● | ● | $ | ● |

HIE Ready: ○ No capability
 ● to ●●●● HIE capability, from least capable, one ●, to most capable, four ●●●●

Costs: $0
$ to $$$$$
?

Some organizations offer HIE Ready at no additional cost.
Relative cost, from lowest cost, one $, to highest cost, four $$$$$.
Did not provide a cost for HIE Ready.

California Connects: ● Demonstrated that the product was HIE READY at 2012 California Connects.

Notes: 1. All ambulatory EHR vendors have ONC-ATCB certified products for stage 1 meaningful use.
Questions?

See our web site at:
http://www.ucdmc.ucdavis.edu/iphi/Programs/cheq/HIEReady.html

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