Knowledge Network
A New Look at Economic Barriers to Interoperability

26 January 2018
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- Monthly webinars
  - Presentations by Members or guest speakers
  - Discussion on topics of importance to Members
  - Member meetings
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Today’s Topic

A New Look at Economic Barriers to Interoperability

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How effective was HITECH for increasing EHR adoption, and what challenges remain? How will future efforts build on or address successes and barriers identified during implementations driven by HITECH? How will health information exchange, big data, interoperability and payment reform shape the future of actionable, shareable health information?
A New Look at Economic Barriers to Interoperability

JULIA ADLER-MILSTEIN, PHD
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JANUARY 26, 2018
Policy Context

❖ Health information exchange is critical to a well-functioning health care system.

❖ Electronic sharing of data between providers can lead to better care coordination, greater efficiency

❖ However, little consensus on how to achieve these benefits: what approach(es) to HIE should be pursued?

❖ HITECH provided funding as well as non-financial incentives to increase HIE, largely allowing different approaches to HIE to exist in the market

❖ Frustration with slow pace of progress
**HIE-related MU criteria most challenging, but also see big increase 2013-2014**

### Exhibit 4

<table>
<thead>
<tr>
<th>Objective</th>
<th>Able to meet (%)</th>
<th>2013-14 percentage-point increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient ability to view, download, and transmit</td>
<td>10.4</td>
<td>64.3</td>
</tr>
<tr>
<td>Summary care record for each transition</td>
<td>42.2</td>
<td>74.4</td>
</tr>
<tr>
<td>Electronic syndromic surveillance data</td>
<td>63.6</td>
<td>79.2</td>
</tr>
<tr>
<td>Electronic reportable lab results</td>
<td>63.9</td>
<td>82.4</td>
</tr>
<tr>
<td>Clinical decision support</td>
<td>72.8</td>
<td>90.2</td>
</tr>
<tr>
<td>Electronic data to immunization registries</td>
<td>73.5</td>
<td>87.9</td>
</tr>
<tr>
<td>CPOE for medication, lab, and radiology orders</td>
<td>84.3</td>
<td>93.1</td>
</tr>
<tr>
<td>Perform medication reconciliation</td>
<td>89.5</td>
<td>91.6</td>
</tr>
<tr>
<td>All stage 2 core objectives</td>
<td>5.8</td>
<td>40.5</td>
</tr>
</tbody>
</table>

Adler-Milstein et al. Health Affairs 2015
Stage 2 Transition of Care Threshold Achievement

N=1,822 hospitals; data through April 2016
My Diagnosis

❖ Slow progress is the confluence of THREE factors

• Little clarity or agreement on end-point

• Numerous, difficult barriers that span domains and require coordination across many stakeholders

• Insufficiently strong financial incentives to overcome barriers

❖ In particular, providers and vendors do not need to engage in (or support) robust HIE to be competitive in the market.
Issue 1

- Slow progress is the confluence of THREE factors
  - Little clarity or agreement on end-point
  - Well-defined HIE use cases *versus* all key stakeholders share all relevant clinical data “in an interoperable manner”
  - *Key challenge is how to pursue the former in the near-term, while ensuring that we are not making decisions that interfere with our ability to do the latter in the long-term*
Issue 2

- Slow progress is the confluence of THREE factors
  - Little clarity or agreement on end-point
  - Numerous, difficult barriers that span domains and require coordination across many stakeholders
Key Result from National HIO Survey (2014)
Key Result from National HIO Survey (2014)

Related to business case & aligned incentives
Key Result from National HIO Survey (2014)

Related to technical challenges

Exhibit 15: **Barriers to Development**

- Hire/retain staff: 89%
- Agreement on what HIE includes: 89%
- Privacy and confidentiality concerns: 86%
- Governance issues: 85%
- Competition from other HIE efforts: 84%
- Stakeholder concerns about competitive position: 83%
- Linking patient data/patient matching: 82%
- Managing complexity of consent models: 81%
- Addressing technical barriers: 79%
- Lack of stakeholder interest: 78%
- Government policy and mandates: 75%
- Competition from HIT vendors offering HIE solutions: 72%
- Lack of funding: 69%
- Lack of resources to implement interface standards: 69%
- Limitations of current interface standards: 68%
- Developing a sustainable business model: 62%
- Integration of HIE into health professional workflow: 58%

Source: [http://www.rwjf.org/content/dam/farm/reports/reports/2015/rwjf423440](http://www.rwjf.org/content/dam/farm/reports/reports/2015/rwjf423440)
Key Result from National HIO Survey (2014)

Related to policy & governance challenges
Key Result from National HIO Survey (2014)

Related to operational challenges
Issue 3

- Slow progress is the confluence of THREE factors
  - Little clarity or agreement on end-point
  - Numerous, difficult barriers that span domains and require coordination across many stakeholders
  - Insufficiently strong financial incentives to overcome barriers
What do we know about financial and business barriers?

Anecdotally:
- Hospitals perceive patient data “as a key strategic asset, tying physicians and patients to their organization.” (Grossman et al. 2008)
- Complaints to ONC about information blocking

Empirically, but indirectly:
- For profit hospitals and those in more competitive markets substantially less likely to share data (Adler-Milstein et al. AJMC 2011)
What do we know about financial and business barriers? *New Findings*

(1) STUDY ONE:
Examines the relationship between hospital characteristics and the extent of hospital engagement in SCR transmission for Stage 2 MU

*In Press*

(2) STUDY TWO:
Assesses current experiences with information blocking by those leading HIE efforts

*Published earlier this year*
Study One: What explains variation in Stage 2 MU SCR Criterion?

N=1,822 hospitals; data through April 2016
Study One: Results – Technology

**Associated with Higher Levels**

- Using a third party HIE vendor (2.6)
- Using EHR vendor as HIE vendor (2.9)
- Sending alerts to PCPs (2.9)
- Specific EHR vendor
  - Epic (6.9)
  - Siemens (6.6)

**Associated with Lower Levels**

- Specific EHR vendor
  - Cerner (-4.0)

**Not Associated**

- HIO participation
- Basic or Comprehensive EHR
- Number of available exchange partners in market
Study One: Results – *Incentives*

Associated with Higher Levels

- Ownership
  - Government (7.8)
  - Non-profit (5.3)
- System Membership (3.5)

Not Associated

- Market competition
- Hospital marketshare
- Network membership
- % of revenue in capitated contracts
- % of revenue in shared risk contracts

Associated with Lower Levels
Study One: Results – *Other Characteristics*

**Associated with Higher Levels**
- Rural location (4.7)

**Associated with Lower Levels**
- Size and teaching status
  - Large, minor teaching (-5.8)
  - Large, major teaching (-15.8)

**Not Associated**
- All other size and teaching combinations
- % Medicaid inpatient days
- % Medicare inpatient days
- Micropolitan location
- Hospital-ambulatory integration
- Market population
- Hospital beds per 1000 residents
But how do you know it’s specifically about “exchange”?

- Meeting the criterion also requires ability to generate an SCR, know where to send it, etc.
- What is related to higher % of all SCRs *sent* that are transmitted electronically?
  - Epic (vs. “other” vendor)
  - Government or non-profit ownership (vs. for profit)
  - System membership
Discussion

- Overall low levels of HIE under Stage 2 MU
- Related to both technical capabilities and incentives (and complexity)
- No clear target for actions to increase exchange
  - Limited insights into nature of incentive-related issues
Study 2: Information Blocking

❖ Key is to determine if EHR vendors and/or providers are *making decisions* that slow or impede interoperability

❖ And determine whether incentives are perverse or just insufficiently strong.

- *If perverse*, information blocking is “real” and needs to be targeted.

- *If insufficiently strong*, information blocking is concentrated within a small number of bad actors, and the real issue is that we need to strengthen incentives for pursuing HIE.
Information blocking occurs when persons or entities knowingly and unreasonably interfere with the exchange or use of electronic health information.

**Interference.** Information blocking requires some act or course of conduct that interferes with the ability of authorized persons or entities to access, exchange, or use electronic health information.

This interference can take many forms, from express policies that prohibit sharing information to more subtle business, technical, or organizational practices that make doing so more costly or difficult.

**Knowledge.** The decision to engage in information blocking must be made knowingly.

**No Reasonable Justification.** Accusations of information blocking are serious and should be reserved for conduct that is objectively unreasonable in light of public policy.

Public policy must be balanced to advance important interests, including furthering the availability of electronic health information for authorized and important purposes.
Information Blocking Survey

❖ As currently defined, information blocking is only observed through provider and vendor business practices

❖ HIE efforts are those who most directly encounter such business practices

❖ We are therefore surveying leaders of HIE efforts to ask about:
  o Extent to which they observe info blocking behaviors
  o Viability of policy solutions to combat info blocking
# Information Blocking Survey: Frequency

<table>
<thead>
<tr>
<th>Frequency of Engaging in Information Blocking: EHR VENDORS</th>
<th>Frequency of Engaging in Information Blocking: HOSPITALS &amp; HEALTH SYSTEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine</td>
<td>Occasional</td>
</tr>
<tr>
<td>55%</td>
<td>30%</td>
</tr>
</tbody>
</table>
Frequency of Information Blocking Behaviors: EHR Vendors

- High fees for HIE unrelated to cost
- Making 3rd party access to standardized data difficult
- Refusing to support HIE with specific vendors or HIEs
- Making data export difficult
- Changing HIE contract terms post-implementation
- Unfavorable contract terms for HIE

Often/Routinely | Sometimes | Never/Rarely
Frequency of Information Blocking Behaviors: Hospitals/Health Systems

Coersing providers to adopt particular EHR or HIE technology
- Often/ Routinely
- Sometimes
- Never/ Rarely

Controlling patient flow by selectively sharing patient information
- Often/ Routinely
- Sometimes
- Never/ Rarely

Using HIPAA as a barrier to PHI sharing when it is not
- Often/ Routinely
- Sometimes
- Never/ Rarely
Policy Strategies to Combat Information Blocking: EHR Vendors

- Demonstration of product interoperability
- Prohibiting gag clauses
- Stronger government HIE infrastructure
- Make information blocking illegal
- Stronger financial incentives
- Tougher Certification
- Voluntary code of conduct

- Very effective
- Moderately effective
Policy Strategies to Combat Information Blocking: Hospitals/Health Systems

- **Stronger incentives from CMS**
- **Increase transparency in business practice**
- **Make information blocking illegal**
- **Guidance from ONC**
- **Train providers to identify information blocking**
- **Creation of provider code of conduct**

**Very effective**

**Moderately effective**
Discussion

❖ Based on survey results, information blocking appears to be real and harmful, but not routine among all vendors and providers

❖ Agreement on policy actions to combat it, which focus on:
  o Strengthening incentives
  o Increasing transparency (on pricing, contracting, and product performance)
    • Part of 21st Century Cures TRUST provisions
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Summary

Increase Provider Incentives for HIE-sensitive Outcomes

Lower Barriers to Interoperability, particularly targeting vendors/technology
Summary

Opportunities:
- Higher threshold for SCR HIE in Stage 3 MU
- New NQF effort to develop HIE-sensitive outcomes
- Incorporate measures into new payment models (e.g., MIPS)
- Shift to bundled payment

Opportunities:
- Stage 3 MU API requirements & associated technical standards
- TRUST provisions in 21st Century Cures
- Federal efforts related to removing policy barriers related to consent, new patient matching approaches

Is this enough?
Questions?
Next Month

Topic TBD
Send any suggestions to info@ca-hie.org