Hospital Interoperability & Capabilities to Support Patient Engagement

2018 ONC Annual meeting
Today’s Discussion

• Approach to measuring progress related to interoperability and provider’s capabilities to support consumer-mediated exchange

• Results related to
  » Interoperability among hospitals
  » Hospitals capabilities that enable consumer-mediated exchange
Data Sources for today’s discussion

• **Nationally Representative AHA Health IT Supplement**

  » Ongoing collaboration with the AHA to conduct annual survey of hospitals on health IT

  » Response rate for 2017 survey: 64%

  » Total respondents 2,789

  » Survey questions capture key interoperability concepts and patient engagement functions

  » Analyses and results limited to non-federal acute care hospitals
### Concepts to Measure Movement of Interoperable Electronic Health Information

<table>
<thead>
<tr>
<th>Send</th>
<th>Receive</th>
<th>Find</th>
<th>Use</th>
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**Barriers to Interoperability**

### Availability

Electronic Health Information from outside sources routinely available

- Gaps in information exchange experienced by individuals

### Use

Electronic Health Information from outside sources routinely used for decision-making and managing care
Percent of U.S. non-federal acute care hospitals that routinely send or receive summary of care records with sources outside their hospital system by exchange method, 2017

<table>
<thead>
<tr>
<th>Method</th>
<th>Receive</th>
<th>Send</th>
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<tr>
<td>Standalone HISP or HISP provided by a third...</td>
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<td>State, regional, or local HIO</td>
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<td>Single EHR vendor network</td>
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<td>e-Health Exchange</td>
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<td>Multi-EHR vendor network (e.g. CommonWell)</td>
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<tr>
<td>Mail or fax</td>
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<tr>
<td>eFax using EHR</td>
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<td>Provider portal for view only access to EHR system</td>
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<td>Interface connection between EHR systems (e.g.,...)</td>
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<tr>
<td>Direct access to EHRs (via remote or terminal...)</td>
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Source: 2017 AHA Annual Survey Information Technology Supplement.
Notes: *Significantly lower than their counterparts (p<0.05).
Interoperability among acute care hospitals is improving.

Figure 1: Percent of U.S. non-federal acute care hospitals that electronically find patient health information, and send, receive, and integrate patient summary of care records from sources outside their health system, 2014-2017.


NOTES: *Significantly different from previous year (p<0.05).
Small, rural, and CAHs are significantly less likely to be engaged in the 4 domains of interoperability than their counterparts.

Source: 2017 AHA Annual Survey Information Technology Supplement.
Notes: *Significantly lower than their counterparts (p<0.05).
Supporting consumer-mediated exchange

- Exchange of health information can occur among individuals and providers.
- CMS EHR Incentive Program called for eligible professionals and hospitals to provide individuals with the capability to view, download and transmit their electronic health information.
- Important to monitor if the infrastructure is in place for individuals to access and share their electronic health information with their providers.
About 7 in 10 hospitals have the capability to support individuals’ ability to electronically view, download and transmit their health information.

Percent of non-federal acute care hospitals that provided patients with the ability to electronically view, download, and transmit their health information, 2013-2017.

NOTES: *Significantly different from previous two years (p<0.05).
In 2017, CAHs and small hospitals lag behind their counterparts in their VDT capabilities

Percent of non-federal acute care hospitals that provided their patients with ability to electronically view, download, and transmit their health information by hospital type, 2017.

SOURCE: 2017 AHA Annual Survey Information Technology Supplement. Notes: *Significantly different from its counterpart p<0.05).
Conclusions

• Provider-to-Provider Exchange and Interoperability
  » Hospitals’ interoperability is increasing
    – 9 in 10 hospitals are electronically sending summary of care records and about three-quarters are electronically receiving summary of care records but rates of integration lag behind.
  » CAHs, small and rural hospitals lag behind their counterparts in engaging in each domain of interoperability.

• Consumer-mediated exchange
  » Overall, a majority (7 in 10) of non-federal acute care hospitals possess the capability to support VDT
  » VDT capabilities varies by hospital type, with smaller and CAH hospitals lagging behind their counterparts
Addressing Gaps in Interoperability

2018 ONC Annual Meeting
November 29, 2018
Discussion Topics

• Drivers of information exchange
  ▪ Regulatory
  ▪ Non-regulatory

• Where we are making progress
  ▪ Provider-to-provider
  ▪ Provider-to-person

• Barriers to efficient and effective exchange
Regulatory Burden Overwhelming Providers, Diverting Clinicians from Patient Care

Regulations are essential to ensure safety and accountability. However, the rapid increase in the scope and volume of mandatory requirements diverts resources from the patient-centered mission of health systems, hospitals and post-acute care providers.

$39 BILLION
Spent by health systems, hospitals, and post-acute care providers each year on non-clinical regulatory requirements

629 mandatory regulatory requirements

- Hospitals have to comply with 341 mandatory regulatory requirements.
- Post-acute care providers have an additional 288 requirements.

$7.6 MILLION per community hospital spent annually to comply

- This figure rises to $9 million for those hospitals with post-acute care.
- For the largest hospitals, costs can exceed $19 million annually.
- The average hospital also spends almost $760,000 annually on the information technology investments needed for compliance.

Patients are affected by excessive regulatory burden through:

- Less time with their caregivers
- Unnecessary hurdles to receiving care
- Higher health care costs
Medicare conditions of participation, billing, and coverage determinations are the most costly areas:

- The Medicare COPs are important to ensure that care is provided safely and meets standards.
- However, these requirements need to be evaluated carefully to ensure they actually improve safety.
- Existing guidance to simplify billing and coverage determinations should be adopted universally by payers and others to achieve savings.

Regulatory burden costs **$1,200** every time a patient is admitted to a hospital.

FTEs Dedicated to Regulatory Burden per Hospital:

- Legal: 1.3
- Physician (MD, DO): 1.9
- Compliance: 3.3
- Management: 4.7
- Nursing (Allied Health): 5.3
- Health IT Professional: 8.0
- Other Staff: 13.4
- Other Administrative: 21.2

15 doctors & nurses per hospital for compliance:

- 59 full-time equivalent staff are required in each hospital to meet the demands of regulations.
- Over one-quarter of these FTEs are doctors and nurses, who could otherwise be caring for patients.

Source: Data from the American Hospital Association Report: Regulatory Overload - Accessing Regulatory Burden on Health Systems, Hospitals and Post-acute Care Providers.

Reducing regulatory requirements will allow providers to focus on patients, not paperwork.
Non-regulatory drivers of information sharing

- Clinical Care
- Patient Engagement
- Research
- Private Payer Relationships
- New Partnerships
- Addressing Social Determinants
Information exchange is increasing

- Provider-to-provider
  - Multiple mechanisms
  - Send, receive, find, integrate
- Provider-to-person
  - Access health information
  - Additional functions

Interoperability among acute care hospitals is improving


Notes: *Significantly different from previous year (p<0.05).
Over 90 percent of hospitals provide individuals online access to health information

Share of hospitals that provided their patients with ability to electronically view, download, and transmit their health information, 2012-2017.

Notes: Data are unweighted, and include responses from non-federal, general and other special hospitals. Data from the 2017 survey were collected through April 2018. The question about hospitals providing the ability to patients to designate a caregiver was added in 2015.
Additional online functions, 2012-2017

Share of hospitals that provided their patients with ability to access electronic functions, 2012-2017.

Notes: Data are unweighted, and include responses from non-federal, general and other special hospitals. Data from the 2017 survey were collected through April 2018.
Sharing health information is hard, Part 1…

Barriers experienced by hospitals/health systems when trying to electronically send, receive, or find patient health information, 2014 - 2017

Notes: Data are unweighted, and include responses from non-federal, general and other special hospitals. Data from the 2017 survey were collected through April 2018.
Sharing health information is hard, Part 2…

Barriers experienced by hospitals/health systems when trying to electronically send, receive, or find patient health information, 2017

- Providers we would like to electronically send patient health information to either do not have EHR or lack capability to receive information: 63%
- Difficult to find providers’ addresses: 55%
- We have to pay additional costs to send/receive data with care settings/organizations outside our system: 35%
- We had to develop customized interfaces in order to electronically exchange health information: 28%

Source: AHA analysis of American Hospital Association Annual Survey Information Technology Supplement data, 2017
Notes: Data are unweighted, and include responses from non-federal, general and other special hospitals. Data from the 2017 survey were collected through April 2018.
….And the information received can be hard to use

Reasons for rarely or never using patient health information received electronically from providers or sources outside their health system when treating patients, 2017

- Difficult to integrate information in EHR: 55%
- Information not always available when needed: 47%
- Information not presented in a useful format: 31%
- Information that is specific and relevant is hard to find: 20%
- Information available and integrated into EHR but not in workflow: 15%
- Do not trust accuracy of information: 9%
- Vocabulary and/or semantic representation differences limit use: 7%

Source: Variation in interoperability among U.S. Non-federal acute care hospitals in 2017. ONC Data Brief No. 42.
Looking forward

- Address infrastructure issues
- Continue to optimize solutions
Contact

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