Today’s Presentation

• How does interoperability vary across hospitals?
  » Rural hospitals, small hospitals and critical access hospitals (CAHs)

• Who are hospitals’ exchange partners?

• How are hospitals exchanging data?
  » Means of exchange
  » Entities used to enable exchange

• Results in this presentation are based upon the 2015 American Hospital Association IT Supplement Survey and have been published on Health IT dashboard
  » Data briefs #35, #36 and #37
How does progress related to interoperability vary across hospitals?
Rural hospitals, small hospitals and CAHs are closing the gap in EHR adoption

*Significantly different from all hospitals.

Nationwide, the percent of hospitals electronically sending, receiving, and finding key clinical information grew significantly between 2014 and 2015.

NOTES: *Significantly different from previous year (p < 0.05).
Small hospitals, rural hospitals, and CAHs had lower rates of electronically sending, receiving, finding and integrating information

<table>
<thead>
<tr>
<th></th>
<th>Send</th>
<th>Receive</th>
<th>Find</th>
<th>Integrate</th>
<th>All 4 domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small hospitals</td>
<td>80%*</td>
<td>58%*</td>
<td>43%*</td>
<td>31%*</td>
<td>18%*</td>
</tr>
<tr>
<td>Medium and Large hospitals</td>
<td>90%</td>
<td>71%</td>
<td>62%</td>
<td>45%</td>
<td>34%</td>
</tr>
<tr>
<td>Critical Access Hospitals (CAHs)</td>
<td>78%*</td>
<td>56%*</td>
<td>40%*</td>
<td>31%*</td>
<td>17%*</td>
</tr>
<tr>
<td>Non-Critical Access Hospitals</td>
<td>88%</td>
<td>68%</td>
<td>58%</td>
<td>41%</td>
<td>30%</td>
</tr>
<tr>
<td>Rural hospitals</td>
<td>79%*</td>
<td>57%*</td>
<td>38%*</td>
<td>32%*</td>
<td>15%*</td>
</tr>
<tr>
<td>Suburban and Urban Hospitals</td>
<td>90%</td>
<td>70%</td>
<td>63%</td>
<td>43%</td>
<td>34%</td>
</tr>
</tbody>
</table>

SOURCE: ONC/American Hospital Association (AHA), 2015 AHA Annual Survey Information Technology Supplement. All values across row significantly different from values in hospital category listed below (p<0.05).
Electronic availability of outside information at the point of care, and usage of that information for clinical decisions was lower among rural, small and CAHs.

Notes: *Significantly different from all hospitals not within respective hospital type category (p<0.05).
Who are hospitals’ exchange partners?
Lack of exchange partners’ capabilities to receive data was the most frequently identified barrier to interoperability in 2015; this declined since 2014.

- Exchange partners' EHR system lacks capability to receive data
  - 55%
- Exchange partners' lack EHR or other system to receive data
  - 53%
- Difficult to find providers' addresses
  - 49%
- Experience greater challenges exchanging across different vendor platforms.
  - 46%
- Difficult to match or identify patients
  - 33%
- Cumbersome workflow to send from EHR system
  - 32%
- Many recipients of care summaries report that the information is not useful
  - 31%
- Additional costs to exchange with outside providers or settings
  - 25%
- Lack capability to electronically receive data from outside sources
  - 14%
- Lack capability to electronically send data to outside sources
  - 8%
- Don’t typically share patient data with outside providers
  - 6%

Rates of sending and receiving summary of care records between hospitals and other types of providers significantly increased between 2014 and 2015.

**Electronically receive summary of care records from...**

<table>
<thead>
<tr>
<th>Provider Type</th>
<th>2014</th>
<th>2015</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Health Care Providers</td>
<td>16</td>
<td>23*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Long-term Care Providers</td>
<td>17</td>
<td>23*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Outside Ambulatory Care Providers</td>
<td>29</td>
<td>37*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Outside Hospitals</td>
<td>31</td>
<td>40*</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

**Electronically send summary of care records to...**

<table>
<thead>
<tr>
<th>Provider Type</th>
<th>2014</th>
<th>2015</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Health Care Providers</td>
<td>28</td>
<td>35*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Long-term Care Providers</td>
<td>42</td>
<td>49*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Outside Ambulatory Care Providers</td>
<td>50</td>
<td>60*</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Outside Hospitals</td>
<td>49</td>
<td>59*</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

*Significantly different from prior year (p<0.05).

Exchange with long-term care providers and behavioral health providers includes both those inside and outside the hospital’s health system. Non-electronic methods include Mail, Fax, or eFax. Electronic includes secure messaging using an EHR, provider portals, or HIO.

How are hospitals exchanging data?
Hospitals using only non-electronic means of exchanging summary of care records with outside sources significantly declined.

Methods for Receiving Summary of Care Records


Methods for Sending Summary of Care Records


NOTES: * Significantly different from prior year (p<0.05).
Non-electronic methods include Mail, Fax, or eFax. Electronic includes secure messaging using an EHR, provider portals, or HIO.
Secure messaging using EHRs was the most common means to send and receive summary of care records electronically.

Notes: Does not include “eFax.” Summary of care records are in a structured format (e.g., CCDA).
Six out of 10 hospitals nationwide participated in a state, regional or local health information exchange organization (HIO) and used a HIE vendor to enable exchange.

- **Use HIE vendor and participate in HIO**: 61%
- **Use HIE vendor and do not participate in HIO**: 31%
- **Participate in HIO and do not use HIE vendor**: 2%
- **Neither participate in HIO nor use HIE vendor**: 5%

**SOURCE**: 2015 AHA Annual Survey Information Technology Supplement.

Notes: Does not include “eFax.” Summary of care records are in a structured format (e.g., CCDA).
Key-Takeaways

• Interoperable exchange, electronic availability of information, and subsequent use of information that is exchanged were lower among small hospitals, rural hospitals and CAHs.

• Hospitals’ rates of electronically sending and receiving information to and from a variety of types of providers across the care continuum significantly increased between 2014 and 2015.

• However, hospitals’ rates of exchanging data were lower with behavioral health and long-term care providers compared to other hospitals and ambulatory care providers.

• Exclusively using non-electronic means of exchange declined significantly, with hospitals transitioning to using a mix of paper-based and electronic means of exchange.

• A majority of hospitals used both HIOs and HIE vendors to enable electronic exchange of information.
• Rural hospitals, small hospitals and critical access hospitals have nearly closed the gap in EHR adoption but lag behind with regards to interoperability.

• Hospitals rates of electronic exchange across a variety of providers increased; this indicates progress related to exchange partners’ HIE capabilities, a commonly cited barrier to interoperability.

• However, gaps remain with providers not eligible for Meaningful Use Incentives.
  » Future provisions of MACRA and Medicaid funding for HIE among non-MU eligible providers may help accelerate this improvement

• As more exchange partners engage in interoperability, there will be an increasing shift from paper-based to electronic means of exchange; until then using both electronic and non-electronic means of exchange will likely continue.

• A majority of hospitals are using more than one entity to enable interoperability, which has implications for costs and complexity.
Questions/comments?


Vaishali Patel, vaishali.patel@hhs.gov