

Features and status of interoperability in U.S. healthcare

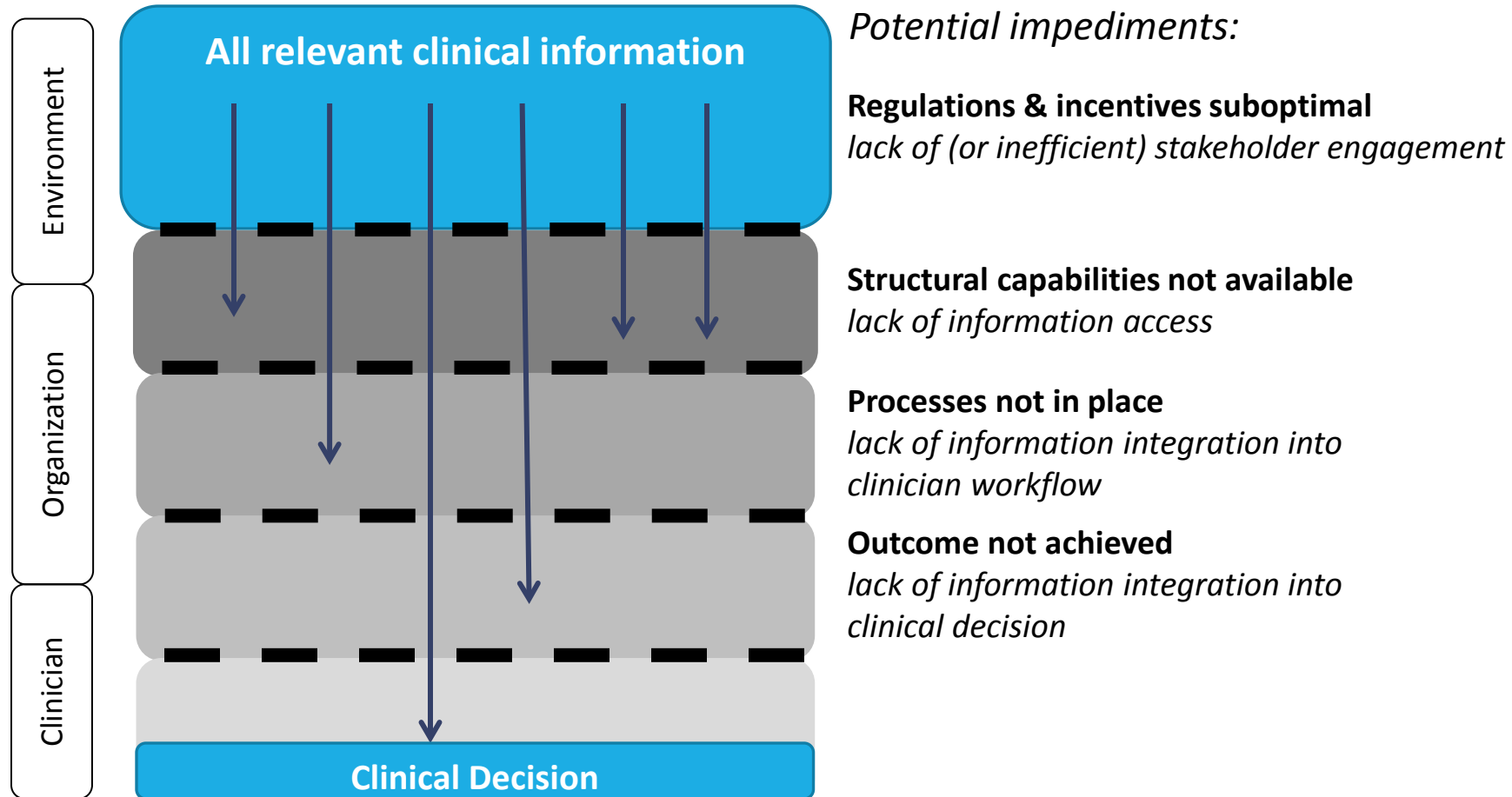
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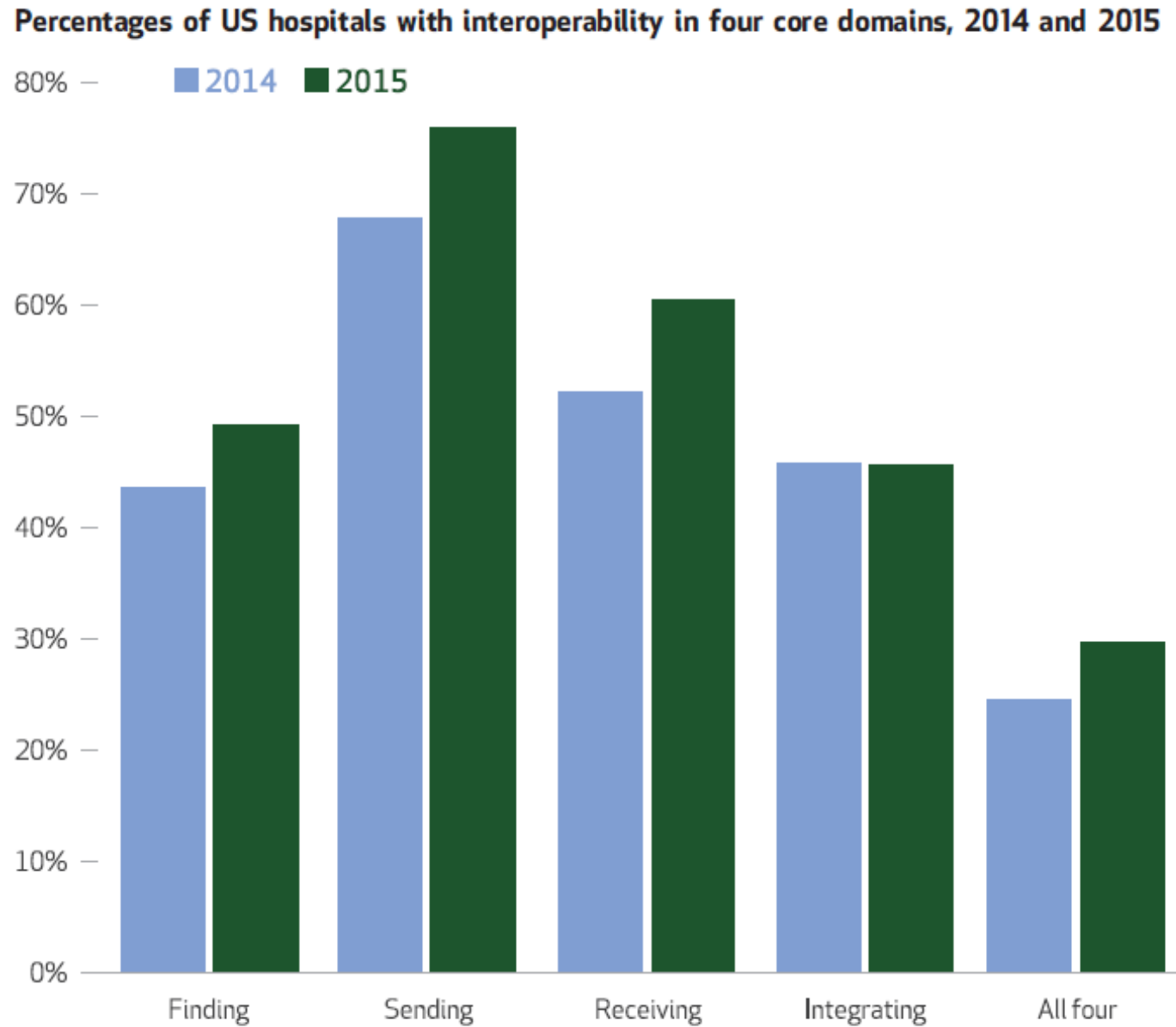
Why interoperability is complex (in one picture)



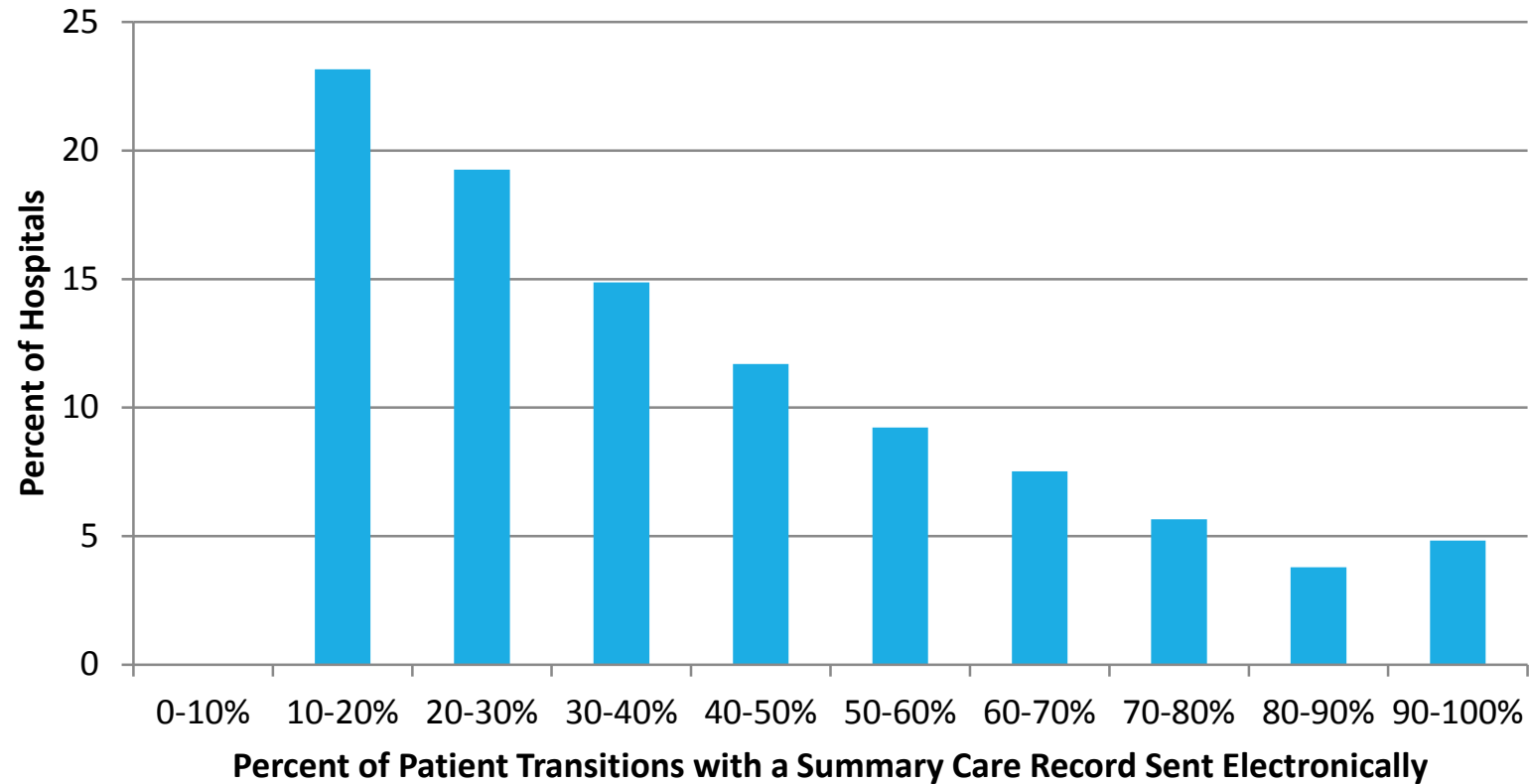
Overview of comments

- ❖ ***Current state*** of interoperability
- ❖ ***Impact*** of interoperability
- ❖ ***Market barriers*** to interoperability

Example 1: Four interoperability domains



Example 2: Stage 2 Meaningful Use Criterion



N=1,822 hospitals; data through April 2016

Example 3:

Are hospitals with largest shared patient volume exchanging *with each other*?

To what degree is your EHR “fully interoperable” with the EHR from hospital X?

- **63% Not or a little bit interoperable**
- **15% Somewhat interoperable**
- **21% Largely or fully interoperable**

When you think about how you share health information with hospital X, how would you compare it to how you share health information with other hospitals with which you share patients?

- **23% Worse**
- **48% Same**
- **17% Better**
- **13% Other**

“I took the survey **but you referenced our direct competitor across town with whom we rarely interact due to competing regional partnerships.** This may be a point in your study as it could reflect communication, or lack thereof, between competing institutions. We have significantly better interaction with our local regional hospitals [...]”

“Very competitive relationship”

“**They are our chief competitor** and their corporate structure has not made interoperability a priority in this market.”

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Today's interoperability is not realizing its potential impact

- ✓ Despite a large number of studies, **limited evidence that interoperability is improving expected outcomes**
- ✓ Most consistent evidence is for **reduced utilization in emergency department setting** (Rahukar et al. Health Affairs. 2016)
- ✓ Primarily due to faster delivery of outside records (Everson et al. Journal of the American Medical Informatics Association. 2017)
- ✓ Where interoperability capabilities exist, **usage is low (<10%)** (Rudin et al. Annals of Internal Medicine. 2016)

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Market Barrier: Weak Incentives

- Hospitals perceive patient data “as a key strategic asset, tying physicians and patients to their organization.” (Grossman et al. Center for Studying Health System Change Issue Brief. 2008)
- For-profit hospitals and those in more competitive markets substantially less likely to share data electronically at all (Adler-Milstein et al. American Journal of Managed Care. 2011)
- For-profit hospitals engaging in lower levels of federal requirement to share data electronically during care transitions (Lin, Everson, Adler-Milstein. Health Services Research. In Press)
- Complaints to federal regulators about information blocking (ONC. Information Blocking Report. 2015)

Information Blocking Survey

Frequency of Engaging in Information Blocking: EHR VENDORS (% of survey respondents)			Frequency of Engaging in Information Blocking: HOSPITALS & HEALTH SYSTEMS (% of survey respondents)		
Routine	Occasional	Rare	Routine	Occasional	Rare
55%	30%	15%	25%	35%	37%

Future

