Electronic Health Record Use and Interoperability: Post-Acute and Long-Term Care

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Overview

- Importance of PAC/LTC interoperability
- State of EHR adoption/interoperability in PAC/LTC
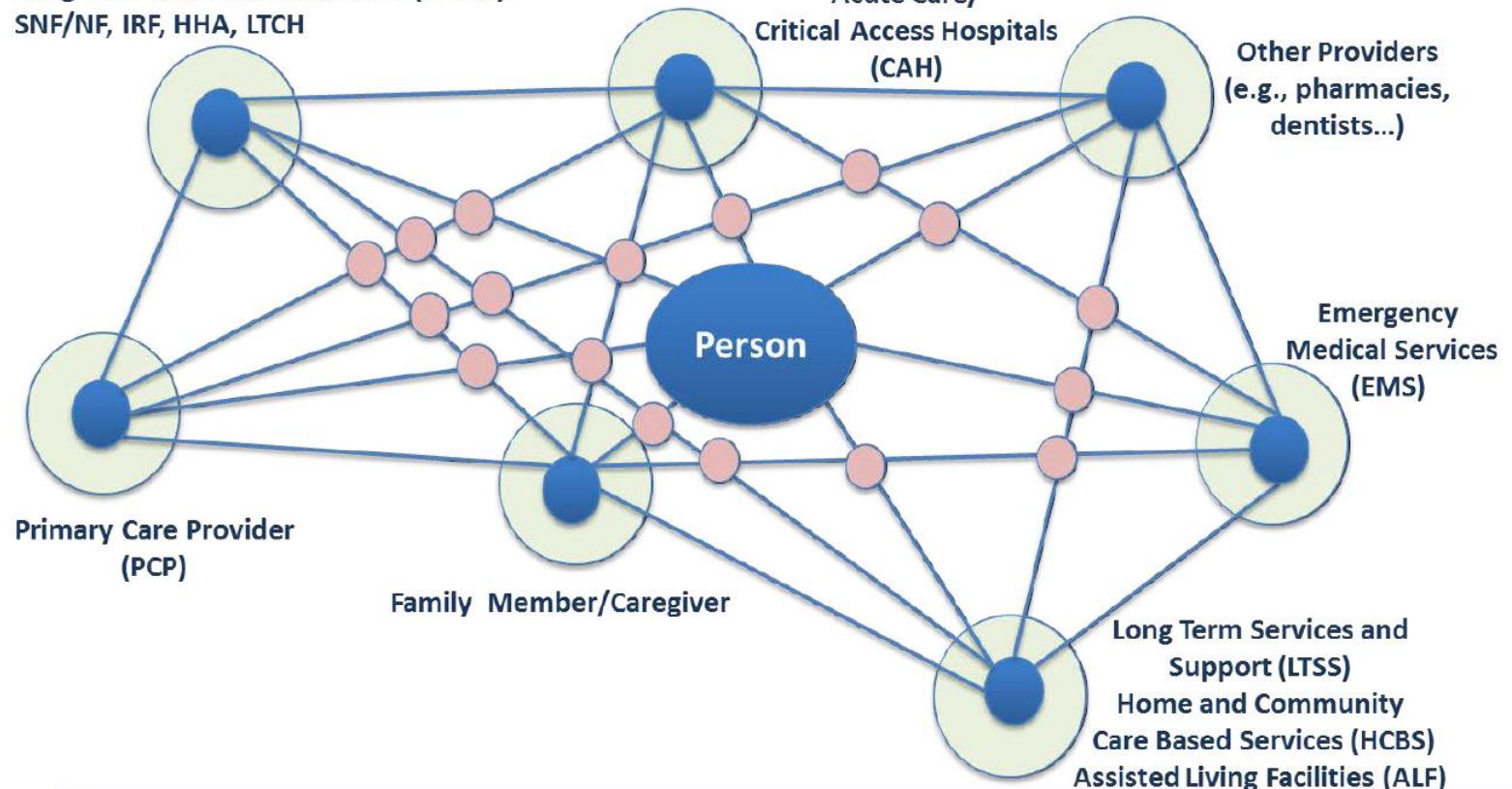- Example of interoperability barrier
- Policy options going forward

Interoperability
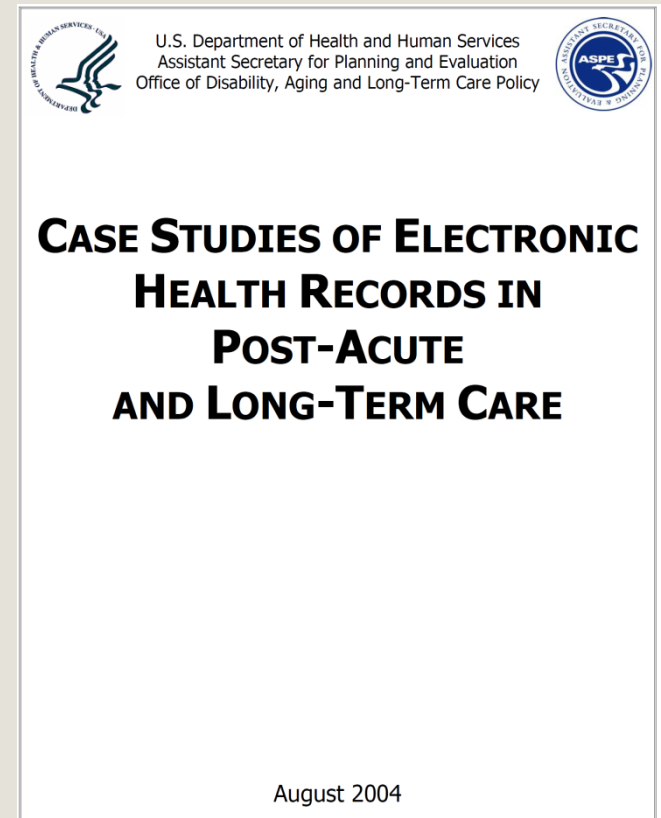

Data Follows the Person

Why is interoperability important?

- <u>Within PAC/LTC settings</u>: PAC/LTC recipients require significant health care

- <u>Across settings</u>: PAC/LTC recipients are frequently transitioned across settings

Benefits of Interoperable PAC/LTC Systems

- Care transition information from previous provider (hospital), and from pharmacists and MDs
- Medication management
- Real-time MD/NP orders and progress notes

U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

CASE STUDIES OF ELECTRONIC HEALTH RECORDS IN POST-ACUTE AND LONG-TERM CARE
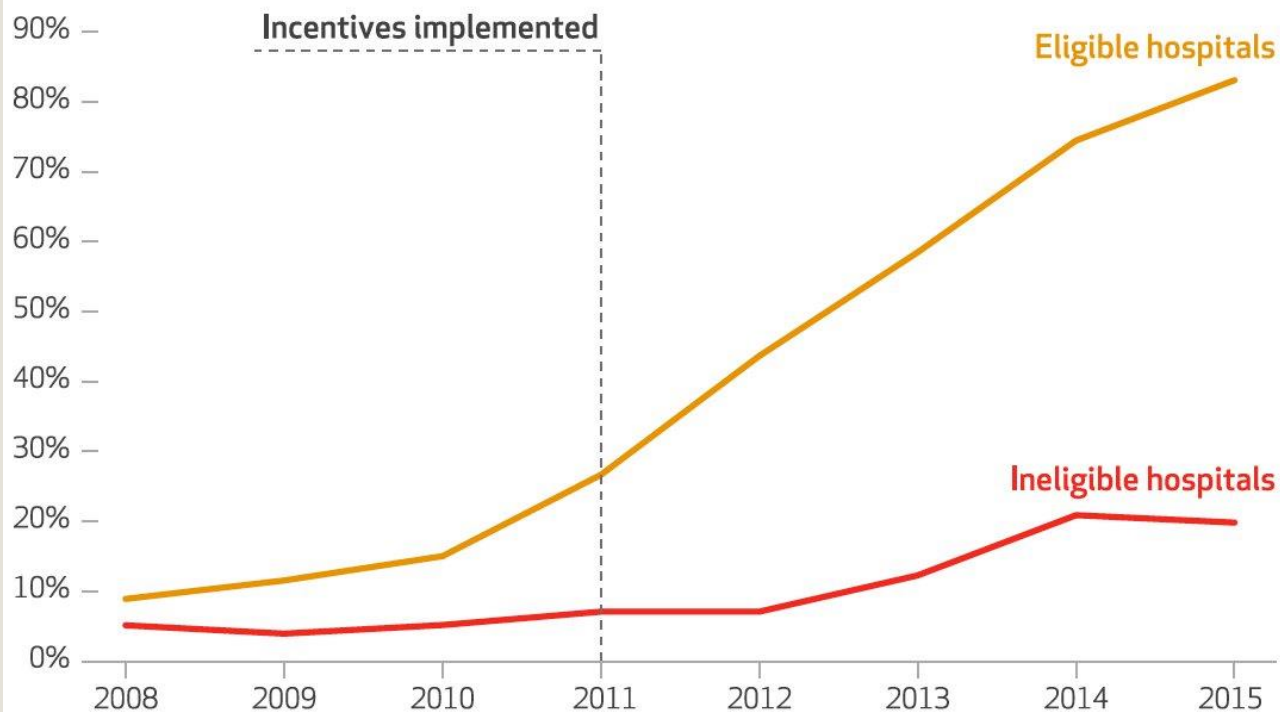
August 2004

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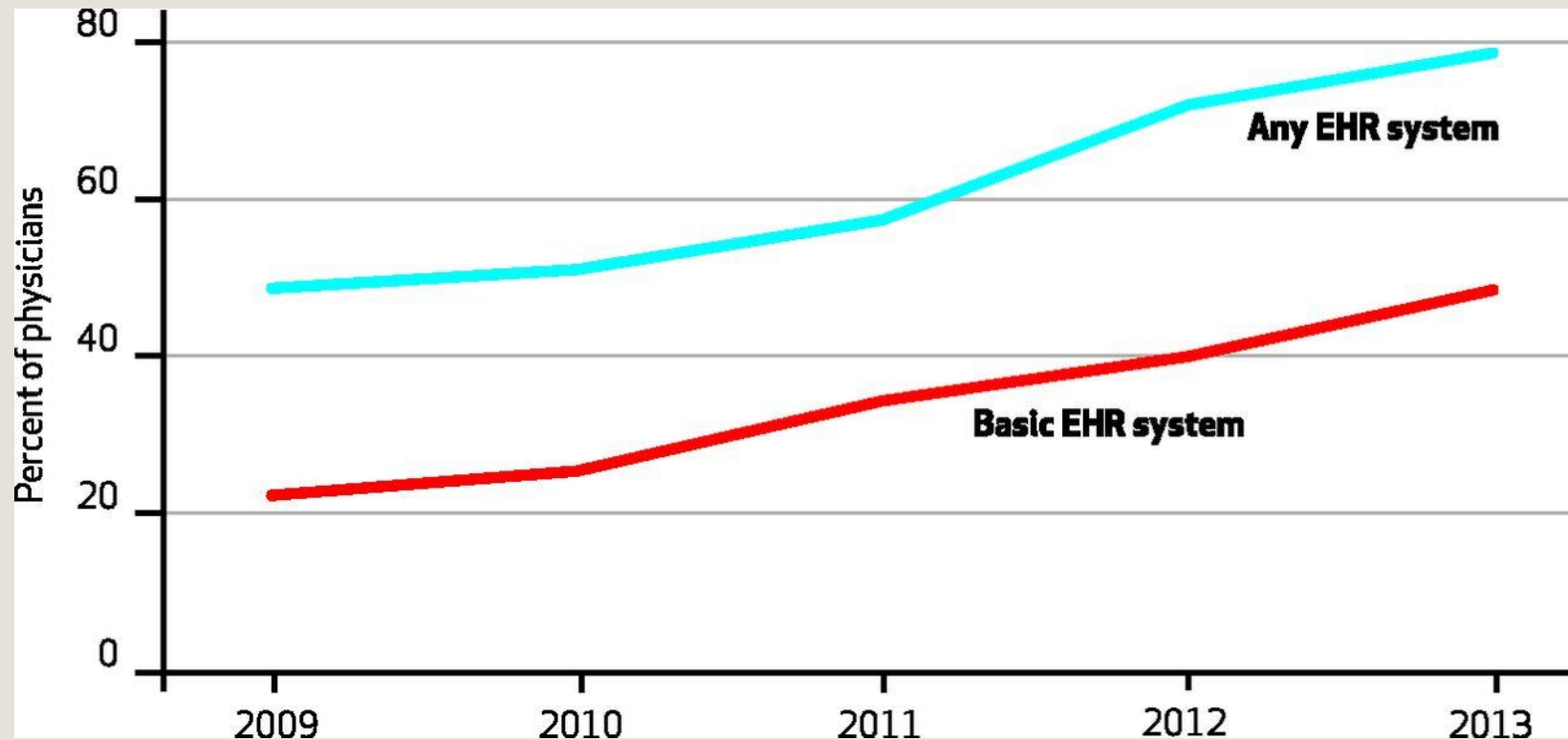
EHRs in Hospitals, 2008-2015

EXHIBIT 2

Percentages of hospitals that adopted at least a basic electronic health record system in 2008–15, by eligibility for meaningful-use incentives

SOURCE Authors' analysis of data for 2008–15 from the American Hospital Association's Annual Health Information Technology Supplemental Survey.
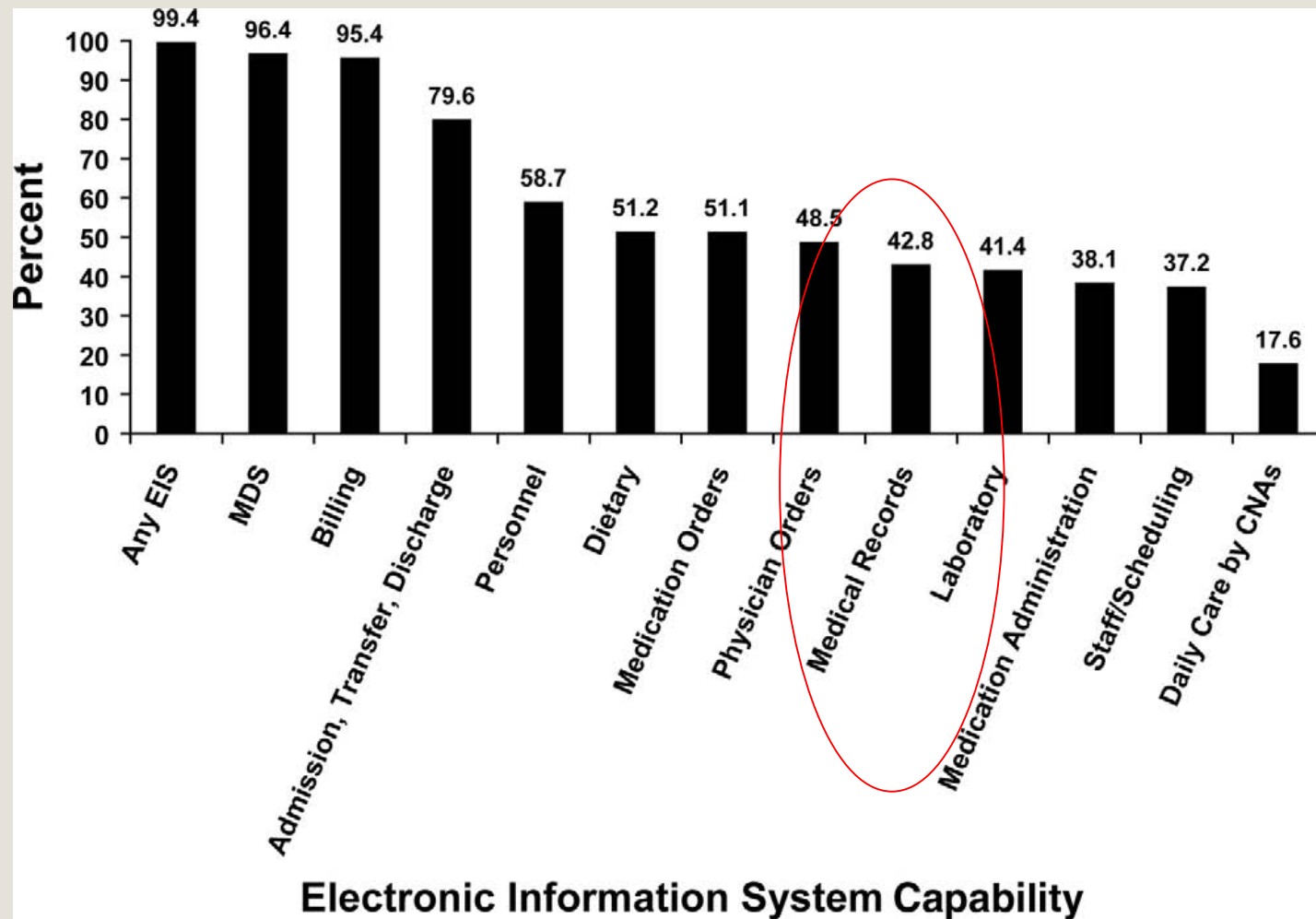
Adler-Milstein et al., 2017 Health Affairs

Office-Based MDs' Adoption of EHRs, 2009-2013

Furukawa et al., 2014 Health Affairs

EHRs in Nursing Homes: 2004

Resnick et al., 2009, JAMIA

Nursing Home Interoperability…

Table 3. Data Exchange Partners Among Nursing Homes With HIE in 2013 (n = 256)

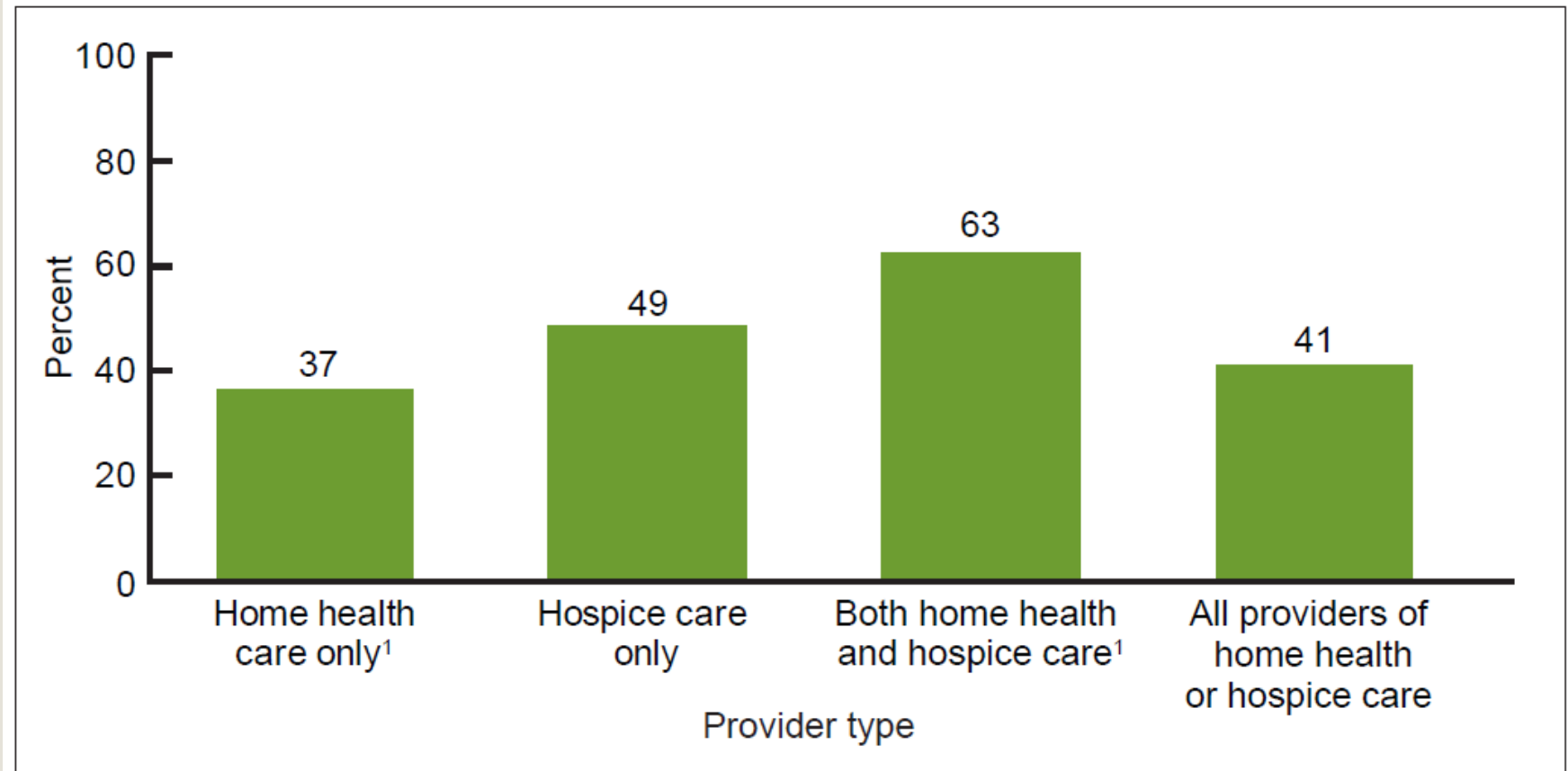| Data Exchange Partner	Receive Information N (%)	Send Information N (%)	Both Receive and Send Information N (%)
RHIO	15 (5.9)	10 (3.9)	20 (7.8)
Primary care physicians	12 (4.7)	16 (6.3)	55 (21.5)
Specialty care physicians	12 (4.7)	13 (5.1)	47 (18.4)
Hospitals	76 (29.7)	7 (2.7)	78 (30.5)
Pharmacies	27 (10.5)	19 (7.4)	131 (51.2)
Laboratories	56 (21.9)	11 (4.3)	84 (32.8)
Other nursing homes	7 (2.7)	4 (1.6)	34 (13.3)
Home healthcare organizations	4 (1.6)	12 (4.7)	29 (11.3)
Assisted living facilities	3 (1.2)	7 (2.7)	26 (10.2)
Hospice	8 (3.1)	9 (3.5)	29 (11.3)

HIE indicates health information exchange; RHIO, regional health information organization.
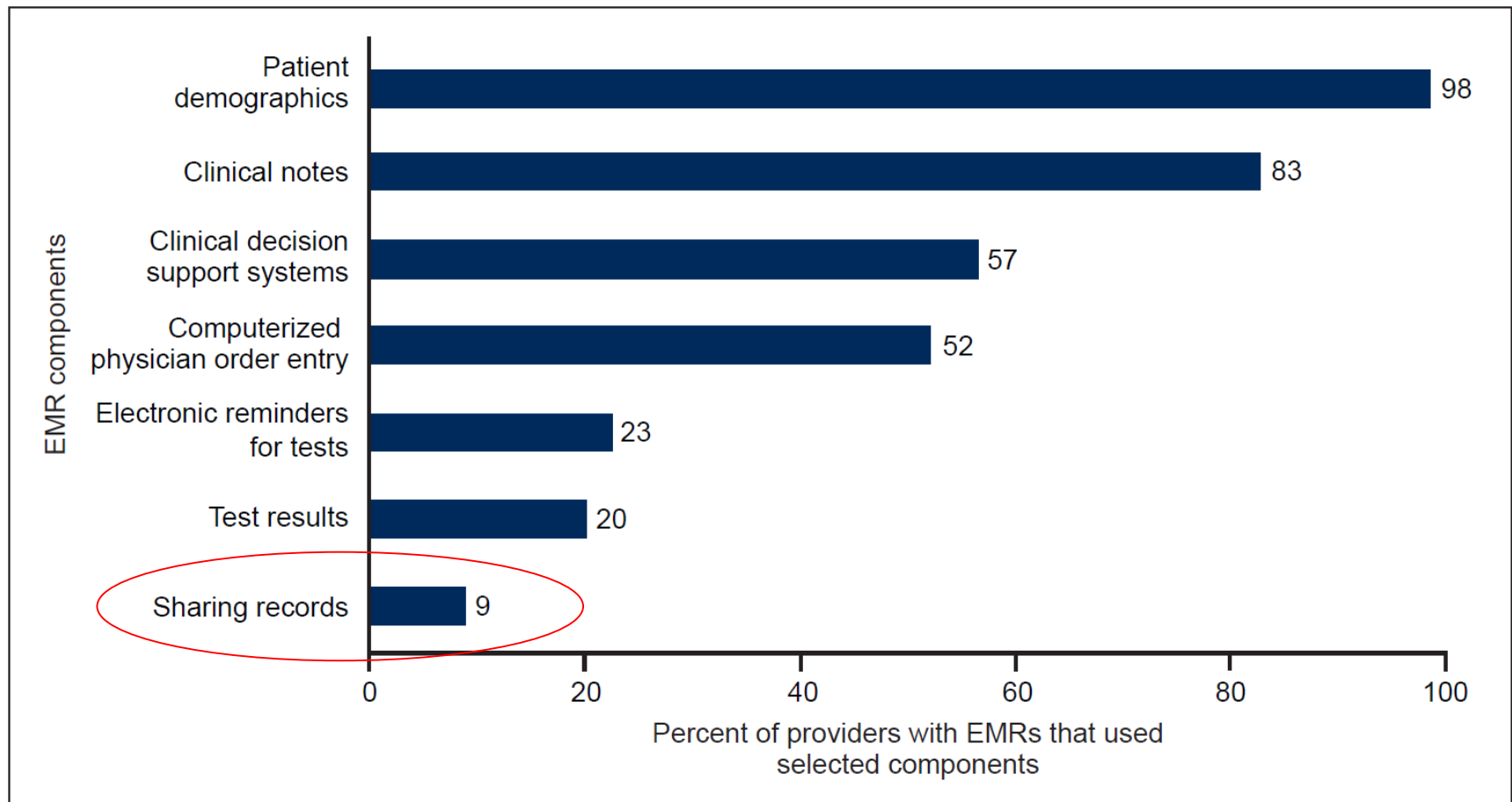
Abramson et al., 2014, AJMC

EHRs in Home Health/Hospice, 2007

Figure 1. Percentage of providers of home health or hospice care with EMRs: United States, 2007

Bercovitz et al., 2010, NCHS Data Brief

Home Health/Hospice Interoperability

Figure 2. Percentage of providers of home health or hospice care with EMRs that used selected EMR components: United States, 2007

Bercovitz et al., 2010, NCHS Data Brief

EHRs in Assisted Living, 2010

EXHIBIT 3

Percentages Of Residential Care Facilities Offering Services To Support Care Integration, 2010

Service	Percent
Electronic health information	
Electronic health record (other than for accounting or billing)	17.4
Electronic health data exchange with physicians	7.4
Electronic health data exchange with hospitals	5.4
Basic health monitoring (blood pressure and weight checks)	96.1
Transportation	80.6
Case management services	57.0
Therapy	
Occupational	40.0
Physical	43.9
Medications	
Assistance with medications (opening bottles, ensuring correct doses)	82.2
Administration of intravenous medications	8.5
Physician or pharmacist review of medications	67.5

Grabowski et al., 2015, Health Affairs

Prior literature suggests…

- EHR use in PAC/LTC settings lag behind hospitals/MDs

- Interoperability a major concern…

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Example of Barrier to Interoperability

- High rate of avoidable hospitalizations among nursing home residents
- Many hospitalizations occur during weekends/evenings
- If a medical issue arises during these times, the on-call physician can either come to the facility or recommend a transfer to the hospital
  - All too often, the on-call physician sends the patient to the ER

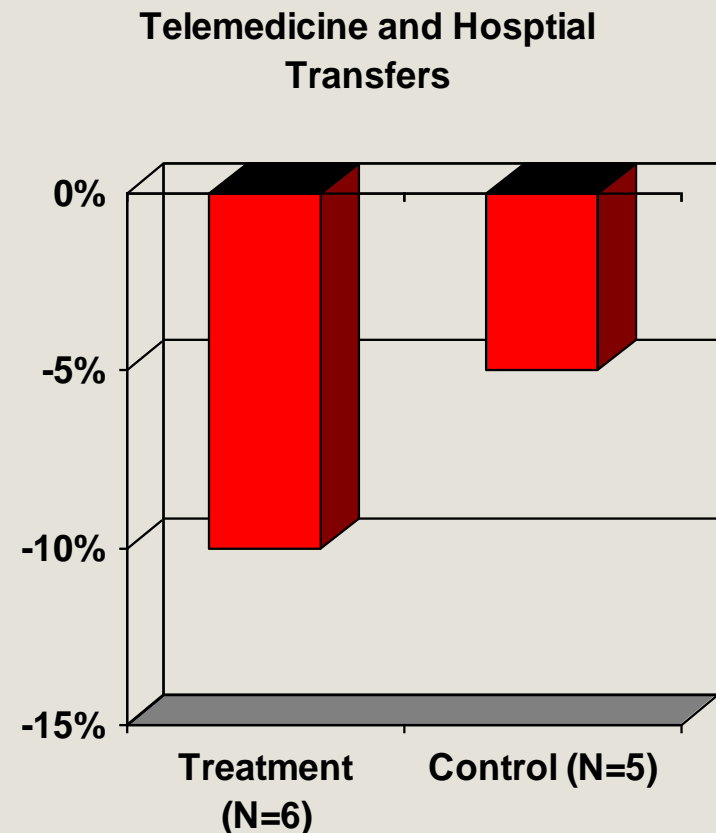# Off-Hour Telemedicine Coverage

- Telemedicine provides real-time physician consultation directly to patients and their families via two-way video conferencing
- May prevent costly hospital transfers

Telemedicine

- We conducted a pre/post randomized study of telemedicine in a Mass. nursing home chain
- Treatment nursing homes generated $100,000/NH annually in Medicare savings from prevented transfers
- Telemedicine service cost $30,000/NH annually

Telemedicine and Hosptial Transfers

Grabowski & O'Malley, Health Affairs 2014

Interoperability?

Telemedicine company and NH had different EHRs. Thus…

– NH staff faxed paper medical record for new patients to telemedicine company, which they scanned for next time

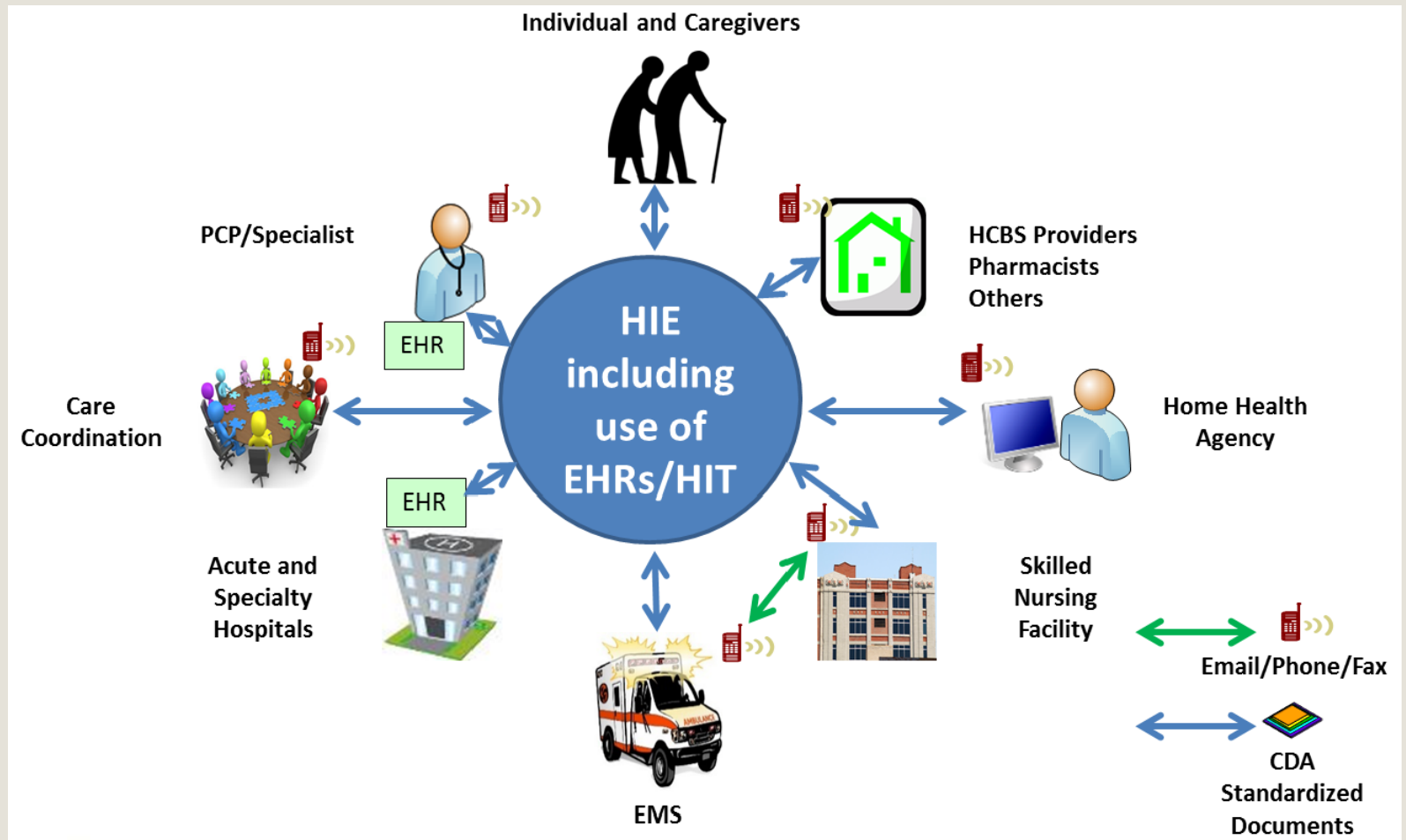– Telemedicine company faxed info back to NH for entry into medical record

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Policy Options for Addressing PAC/LTC Interoperability

- IMPACT Act of 2014
  - Requires standardized & interoperable assessment data by PAC settings
- Payment Incentives (e.g., VBP)
- Alternative Payment Models
  - BPCI
  - ACOs

The Future Accountable Care Community

Thank You

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