

Role of interoperability as a solution to the issues confronting the US healthcare

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Topics

- Top issues confronting the US Healthcare
- Federal Regulations
- Interoperability - A concept
- Comparison of EHRs
- Recommendations

Introduction

- Ownership of the US healthcare system is majorly in
 1. private,
 2. federal,
 3. state and country facilities.
- The Centers for Medicare & Medicaid Services (CMS), earlier known as the Health Care Financing Administration (HCFA), is a federal agency helmed by the United States Department of Health and Human Services (HHS)
- CMS administers the Medicare program in partnership with state governments to maintain Medicaid, the State Children's Health Insurance Program (SCHIP), and health insurance portability standards.
- Medicare and Medicaid were created in 1965.
- Medicare is a national social insurance program, administered by the federal government since 1966, which guarantees access to health insurance for
 1. citizens aged 65 and older those who have worked and paid into the system,
 2. younger people with disabilities
 3. few other groups.
- It consists of four parts, A, B, C and D, that pay for hospital stays and nursing home care, preventive healthcare and screenings, doctor visits, durable medical equipment, home healthcare, outpatient services, hospice care and prescription drugs,
- Medicaid is a federal and state program that helps with medical expenses for low-income patients. Senior citizens with limited financial resources are deemed eligible for both Medicare and Medicaid.

Research Questions

- What are the major issues confronting the healthcare facilities in the United States?
- What are the major healthcare legislations generated to address the issues confronting the US healthcare facilities?
- What is the role of interoperability in the US healthcare system?
- Whether adoption of interoperability, act as solution to the issues in the US healthcare facilities?

Objectives of the study

- To identify and analyse the pressing issues faced by the healthcare facilities in the United States.
- To study the emerging healthcare reforms/legislations released with respect to the issues.
- To understand and estimate the benefits of interoperability towards achieving the actual potential of Health IT.
- To conduct a SWOT analysis of interoperability.
- To conduct a comparison of various EHRs on basis of their respective interoperability quotient.

Methodology

- STUDY DESIGN: Secondary data review and analysis.

Over 50 articles were screened and 30 were selected for full review. The articles/papers/reports selected for full review were analysed to extract relevant information about interoperability. Other than the articles that were screened, resources with Deloitte copyright were also utilised, which however can not be mentioned here due to the organization's compliance and confidentiality issues. Most of the reviewed papers lacked a detailed description of the concept of interoperability. However, this secondary data review confirms that most information led to a similar view of role of interoperability. In order to perform a secondary review of the existing literature, reporting items fulfilling the following eligibility criteria (i.e. the characteristics to be taken into account to perform the search) were chosen:

- Papers with the terms “Interoperability”, “EHR”, “Federal Regulations” or “US healthcare” in their title or abstract.
- Papers/Reports published between January 2010 till date.

Study Material	
Published papers	9
Annual survey reports	14
Website links	7

Methodology

- STUDY SETTING: US Healthcare System
- DURATION OF STUDY: 3 month (6 February 2017 to 6 May 2017)
- LIMITATION OF STUDY :

Issues confronting the US healthcare facilities

Issue	2016
Financial challenges	40%
Governmental mandates	31%
Patient safety and quality	29%

Source: Survey on Healthcare Finance, Safety and Quality Cited by CEOs as Top Issues Confronting Hospitals in 2016, *American College of Health Executives*, January, 2017

List of top financial challenges faced by healthcare facilities

Financial challenges (n = 383)	
Medicaid reimbursement (including adequacy and timeliness of payment, etc.)	63%
Increasing costs for staff, supplies, etc.	60%
Reducing operating costs	55%
Bad debt (including uncollectable Emergency Department and other charges)	54%
Transition from volume to value	54%

Source: Survey on Healthcare Finance, Safety and Quality Cited by CEOs as Top Issues Confronting Hospitals in 2016, *American College of Health Executives*, January, 2017

List of top issues faced by the healthcare facilities with respect to governmental mandates

Governmental mandates (n = 383)	
CMS regulations	67%
CMS audits (RAC, MAC, CERT)	57%
Cost of demonstrating compliance	51%
Regulatory/legislative uncertainty affecting strategic planning	46%
State and local regulations or mandates	40%

Source: Survey on Healthcare Finance, Safety and Quality Cited by CEOs as Top Issues Confronting Hospitals in 2016, *American College of Health Executives*, January, 2017

List of top issues faced by the healthcare facilities with respect to patient safety and quality

Patient safety and quality (n = 383)	
Engaging physicians in improving the culture of quality/safety	59%
Engaging physicians in reducing clinically unnecessary tests and procedures	57%

Source: Survey on Healthcare Finance, Safety and Quality Cited by CEOs as Top Issues Confronting Hospitals in 2016, *American College of Health Executives*, January, 2017

Federal Regulations

Stage 3 of MU

- Centers for Medicare and Medicaid (CMS) final rule on **Stage 3 of the Meaningful Use** Requirements for the Electronic Health Record emphasizing on implementation and “meaningful use” of interoperable electronic health records (EHR) systems.

IMPACT Act 2014

- **Improving Medicare Post-Acute Care Transformation Act of 2014** (the IMPACT Act) requires the submission of standardized and interoperable data by Long-Term Care Hospitals (LTCHs), Skilled Nursing Facilities (SNFs), Home Health Agencies (HHAs) and Inpatient Rehabilitation Facilities.

ONC 10-Year Vision

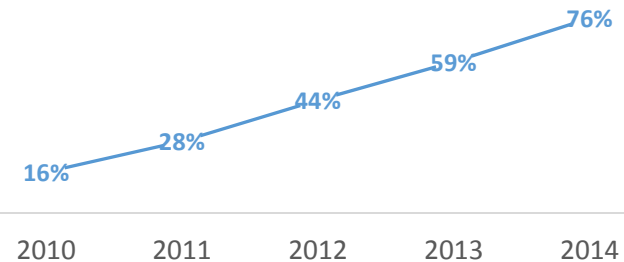
- Office of the National Coordinator Connecting for Health Information Technologies Health and Care for the Nation: **A 10-Year Vision to Achieve an Interoperable Health IT Infrastructure.**

Interoperability

- Is the ability of a system or a product to work with other systems or products.
- From the perspective of health information exchange, interoperability is all about whether data can be moved from one location to another and that the end user can use that information in a meaningful way.
- Is the extent to which numerous medical devices and technologies can exchange, interpret and display health data in a user friendly way wherever a patient receives care.
- Major activities involved in interoperability are:-
 - Find
 - Send
 - Receive
 - Use

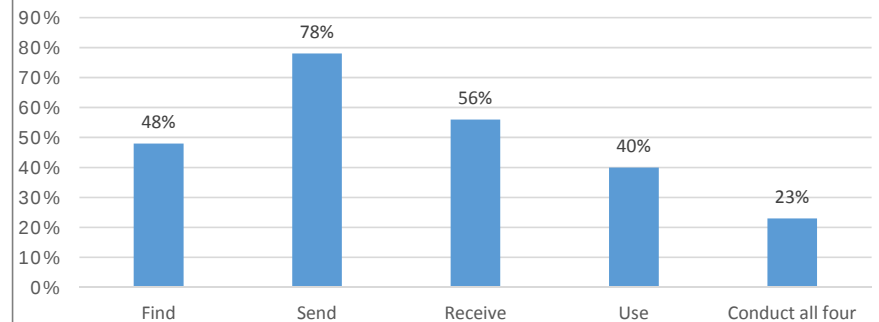
While many hospitals are able to use their current EHR for some activities that promote interoperability, only few are able to do all necessary functions

Percent of hospitals with basic EHR system, 2010-2014



Source: AHA Annual Survey, Health Information Technology Supplement, FY 2010-2014 N=350

Percent of Hospitals Reporting Information Exchange Capabilities, 2014

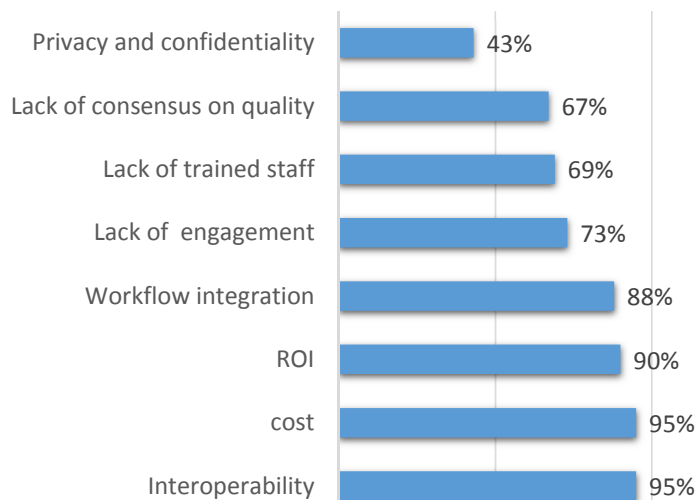


Source: AHA Annual Survey, Health Information Technology Supplement, FY 2014. N=350

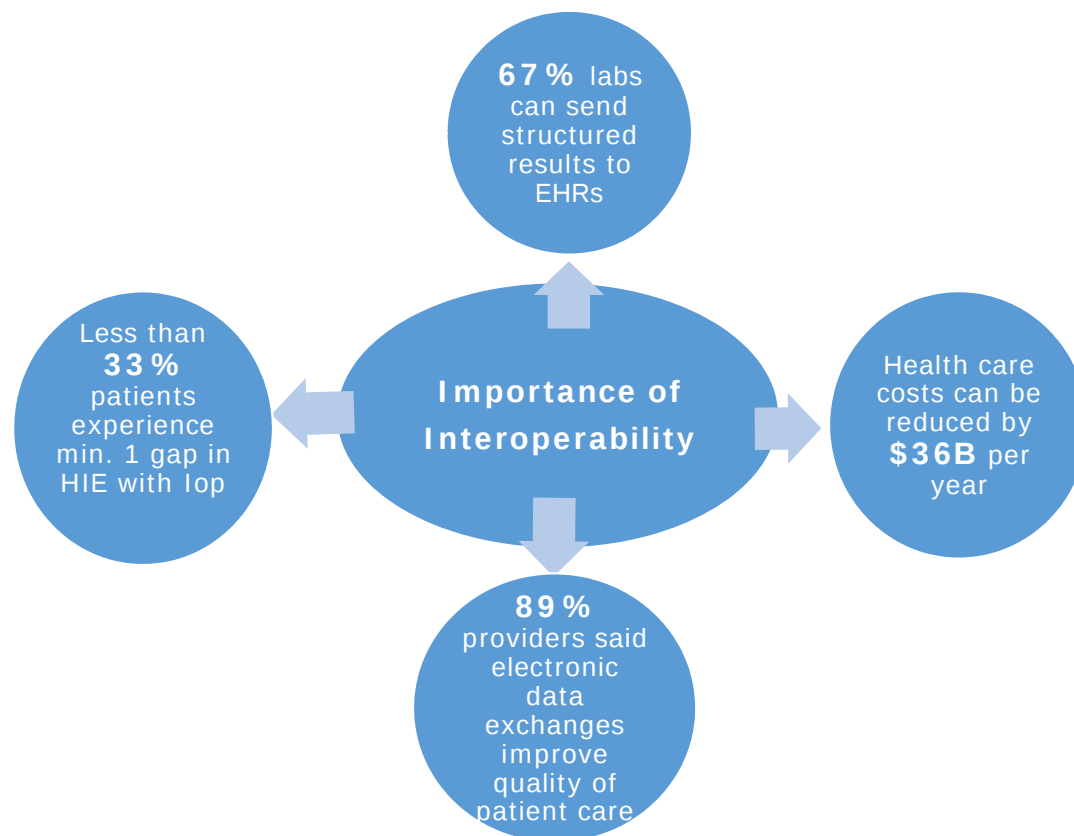
Why Interoperability?

Interoperability is almost universally seen as a major obstacle to effectively using and meeting the potential of health IT.

Percent of ACOs Reporting Largest Barriers to Using Health IT Effectively, 2014

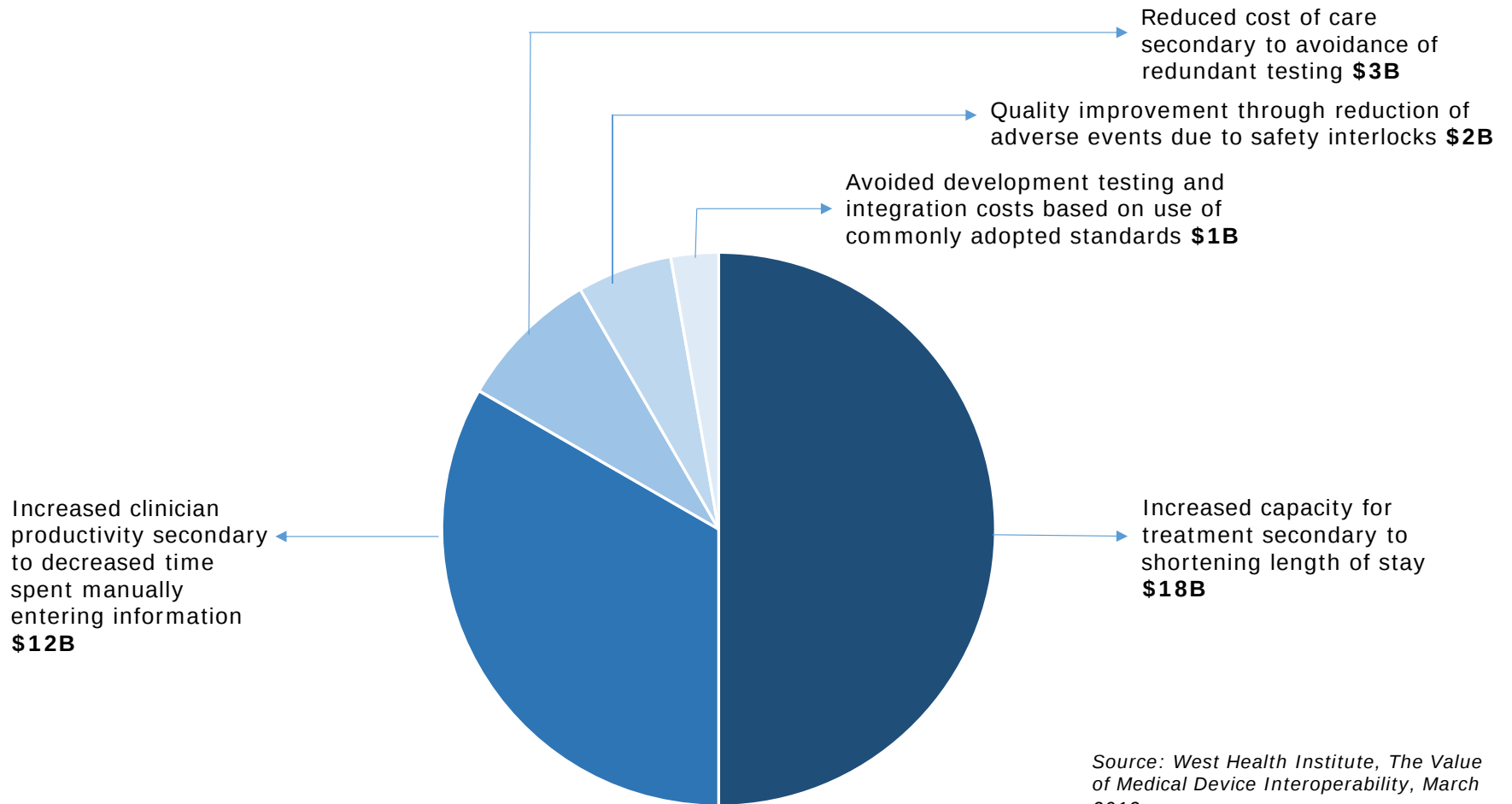


Source: Premier, Inc. and eHealth Initiative survey of Accountable Care Organizations, July – August 2014. 62 organizations responded to the survey.



Source: West Health Institute, *The Value of Medical Device Interoperability*, March 2013.

Fiscal Benefits of Interoperability



SWOT Analysis of Interoperability

Strengths

- Improved patient safety, security and well-being
- Reducing costs associated with legacy non- integrated healthcare system
- Rising employee productivity
- Increased patient engagement
- Care coordination ensured as part of continuity of care

SWOT Analysis of Interoperability

Weakness

- Concerns about disturbance in data transfer
- Inconsistent communication standards
- Data privacy and security breach issues
- Sharing breakdowns

SWOT Analysis of Interoperability

Opportunities

- Significant investments have been made in health IT across the care delivery system
- Need for more solutions for implementation purpose
- Requirement for a range of capabilities among information sources and information users

SWOT Analysis of Interoperability

Threats

- Resistance to change among providers
- Standardization problems in healthcare
- Complexity of the healthcare domain.
- Use of incompatible clinical ontologies/terminologies
- Non uniform privacy laws

Comparison of interoperability quotient of various EHRs

Vendors	Score	Strengths	Weaknesses
E***	3.8+	Savvy IO team respected by competitors and providers Ubiquitous, valuable sharing among E*** customers Lower cost, broad range of connections	E***'s approach tagged as inflexible by some Industry perception of closed technology
Athenahealth	3.8+	High-value/low-cost integration Proactive, easy to connect to Supports simple/complex integration	athena-to-athena sharing ability could be stronger
Cerner	3.3	Strong tools (CEP) for building complex connections Leads out with standards and collaborations	Eclectic mix of connection costs an irritant to clients Resonance (sharing between Cerner customers) not taking off

Vendors	Score	Strengths	Weaknesses
MEDITECH	3.0	Customers appreciate MEDITECH's transparent efforts Generally meets customers' tempered expectations	Weaker tools result in lower level of sharing overall Customers see MEDITECH as harder to connect to
Greenway	2.8	Optimism with new one-to-many connection for sharing	Smaller practices lack connections, missing proactive help Some report frustration with communication around connections
Allscripts	2.7	High volume of records shared within connections High value in current connections	Significant challenges sharing data between Allscripts solutions Stronger integration comes with a perceived high price tag

Vendors	Score	Strengths	Weaknesses
GE Healthcare	2.5	Long-standing connections bring value	Frustratingly inattentive at times with interoperability projects Less than 20% of customers consuming
McKesson	2.5	RelayHealth offers some strong sharing options and HIE foundation Early signs of easy sharing model for Paragon clients	Shared data stays in RelayHealth—not consumed into EMR Seen as disjointed; clients say McKesson is difficult to work with Costs more likely to be a barrier—low sharing overall

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