Interoperability: Real World Experience and Opportunities Going Forward

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Ascension Experience
About Ascension

- Ascension, one of the leading non-profit and Catholic health systems in the U.S., operates more than 2,700 sites of care in 21 states and the District of Columbia.
- In FY 2018, Ascension provided:
  - $1.98 billion in care of persons living in poverty and other community benefit programs
  - 25,164,604 outpatient visits (excluding ER visits)
  - 12,742,057 physician office visits
  - 3,160,538 emergency room visits
  - 1,302,024 clinic visits
  - 1,648,998 equivalent discharges
  - 785,255 discharges
  - 147,044 home health visits
  - 328,263 observation days
  - 82,991 births
  - 27,361 available beds
  - 156,000 associates**
  - 34,000 aligned providers**
  - 151 hospitals**
  - 50+ senior care facilities**

**As of Sept. 2018
Ascension Experience

**Ascension is a Microcosm of the U.S.**

- Given its size and scope, Ascension is a microcosm of the U.S. healthcare system.

- Ascension has come together as one health system over the course of 20 years.
  - Multiple different hospital systems and subsidiaries came together or were formed;
  - Often with different EHR vendors or multiple platforms.

- At the same time, Ascension is also on a path to transformation toward integrated, community-based, value-driven care.
  - A transformational, integrated health system demands implementation of high-functioning, interoperable electronic health systems.

- All of the issues related to interoperability that we face reflect what is happening at a national level.
Interoperability is Essential

• Interoperability is essential for accomplishing fundamental aspects of integrated, high-value care

Provider-to-provider Communications

• Coordinated care requires sharing accurate and complete information about a patient’s health status and care.

Standardization of Care

• How can we create efficiencies, improve quality, and increase value?

Measurement and Analysis of Data

• What are our benchmarks and are we improving?
Interoperability: Where We Are Today

• What it takes to achieve interoperability across a large, complex health system:
  • **Governance Committees**: Ascension Clinical Informatics and Analytics Committee (CIAC) Interoperability Subcommittee
  • **Resources**: Highly specific, complex modifications to each platform to achieve
    • Document Transfer
    • Patient Matching
    • Facility Identification
    • Reporting
    • Event Notifications
    • Data Monitoring
    • Data Mapping
  • **Data Management Infrastructure**: *Extraction* and *normalization* of data takes significant resources because of a lack of interoperability.
    • Population health requires being able to aggregate and analyze data for large groups of patients. Because this data is sitting in individual systems that lack interoperability, vast resources must be applied in order to *extract, normalize* and *manage* the data across myriad software systems inside the healthcare system.
# EHR Platform Diversity

## Ascension Experience

<table>
<thead>
<tr>
<th></th>
<th>EHRs</th>
<th>INSTANCES</th>
<th>FACILITIES/PROVIDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>8</td>
<td>26</td>
<td>112</td>
</tr>
<tr>
<td>Ambulatory</td>
<td>13</td>
<td>30</td>
<td>3750</td>
</tr>
</tbody>
</table>
Where We Go From Here
Recent Proposed Rules

Proceed – But With Caution

• Given the importance of achieving interoperability, we are eager to get there.

• Collaboration between providers, developers and government is essential.

• ONC and CMS proposed rules take some important steps forward, but also raise some concerns.

• Even as regulations are finalized, this issue deserves continued attention from Congress, with stakeholder engagement, to ensure complexities are appropriately navigated and unintended consequences recognized and avoided.
Interoperability

ONC Proposed Rule

- Adoption of USCDI
  - Allows for core data required for exchange to be defined, prioritized, scaled

- Information Blocking / Exceptions
  - Timely information exchange is important
  - Confusing and difficult to interpret
  - Possible unintended consequences resulting: comprised security, high costs to providers, unfair labeling of physicians or providers

- Conditions and Maintenance of Certification
  - Communications Restrictions/Gag Clauses
  - Real-World Testing

- Need to ensure existing standard functionalities are readily accessible, easy for consumers to use, and seamlessly available to providers.
  - Today, certain standards and required functionalities may be technically available through vendors’ platforms, but they often require additional steps or costs for providers to access.

- Importance of small and niche vendors
  - Extremely complicated and extensive requirements / regulations may unintentionally create a situation in which smaller, niche vendors become unwilling or incapable of bearing the costs of compliance.
  - Opportunities for greater compliance assistance through ONC.
Interoperability

CMS Proposed Rule

• Focused on patient access and control of data

• Application Programming Interfaces (APIs)
  • Proposes to adopt and implement an “openly published” API that permits third-party software applications to retrieve—at the direction of the patient—a significant amount of clinical and payment information.
  • Privacy and security concerns.

• Hospital Conditions of Participation (CoPs)
  • Would require participating hospitals to send electronic patient event notifications upon a patient’s transition to another provider or care setting.
  • Requirement as a CoP would create significant resource burden and risk for hospitals.

• Patient Matching
  • Support – but complex.

• Incentivizing EHR Use by Long Term Post-Acute Care Facilities (RFI)
  • Best approach would: (1) facilitate efforts by standards development organizations to develop health IT standards for LTPAC use cases; and (2) reward LTPAC clinicians and facilities who adopt these health IT standards.
Cerner Interoperability

Vision: Demonstrate industry leadership and showcase how Cerner platforms enable scalable interoperability for better patient care within the workflow at low cost

Kashif Rathore
Vice President, Cerner
## Driving innovation and advancing development

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Began using HL7® standards.</td>
</tr>
<tr>
<td>1991</td>
<td>Co-founded RAND study to help address need for national patient identification system.</td>
</tr>
<tr>
<td>1998</td>
<td>Worked with clients to develop an employer driven HIE.</td>
</tr>
<tr>
<td>1999</td>
<td>Co-funded RAND study to help address need for national patient identification system.</td>
</tr>
<tr>
<td>2000</td>
<td>Deployed workflow-driven Direct capabilities to all US clients.</td>
</tr>
<tr>
<td>2002</td>
<td>Co-funded RAND study to help address need for national patient identification system.</td>
</tr>
<tr>
<td>2007</td>
<td>Worked with clients to create SharedHealth, a Medicaid driven HIE.</td>
</tr>
<tr>
<td>2008</td>
<td>Co-funded RAND study to help address need for national patient identification system.</td>
</tr>
<tr>
<td>2009</td>
<td>Since their inception, participated in the ONC Health IT Policy and Standards Committee.</td>
</tr>
<tr>
<td>2010</td>
<td>Joined NCPDP to address e-prescribing standards.</td>
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<tr>
<td>2011</td>
<td>Developed Interoperability Certification program.</td>
</tr>
<tr>
<td>2012</td>
<td>Donated 200,000+ lines of Java code since 2009 to the Direct Project.</td>
</tr>
<tr>
<td>2013</td>
<td>Co-founded CommonWell Health Alliance.</td>
</tr>
<tr>
<td>2014</td>
<td>Demonstrated the use of FHIR standards with Boston Children’s Hospital at HIMSS14.</td>
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<tr>
<td>2015</td>
<td>Co-founded Argonaut Project.</td>
</tr>
<tr>
<td>2016</td>
<td>Founded RAND study to help address need for national patient identification system.</td>
</tr>
<tr>
<td>2017</td>
<td>Since their inception, participated in the ONC Health IT Policy and Standards Committee.</td>
</tr>
<tr>
<td>2018</td>
<td>Co-founded Da Vinci Project, applying the Argonaut approach to payer-provider space.</td>
</tr>
<tr>
<td>2019</td>
<td>First consumer FHIR app goes live.</td>
</tr>
</tbody>
</table>
Enabling data to flow freely

Nationwide connectivity

Cerner client

Open ecosystem

Providers

Consumers

HIE

CommonWell Health Alliance

athenahealth

carequality

eClinicalWorks

Greenway Health

Epic

Post-acute care

Tissue Analytics

Visualdx

Meducation

ePreop
Industry Challenges

Patient & Privacy Consent Variances
- Varying policies per organization
- Disparate State level consent strategies

Unmatched Patient Identity
- No national patient identifier
- Security and privacy concerns

Lack of Standards
- Varying standards and interpretations
- Customized implementations
- Clinical data set/ontologies differences

Limited scalability and adoption of APIs
- Maturing standards
- Lacking and slow adoption
Showcasing Cerner’s Interoperability

Q3 2018 to Q2 2019

- **8,709,329** Provider to provider Secure Messaging
- **17,096,998** Patients enrolled for nationwide exchange
- **1,881,489,956** Electronic prescriptions sent
- **332,883** Providers able to prescribe electronically
- **236,151,889** Patient Summaries exchanged
BETTER ACTIONABLE INTELLIGENCE MEANS BETTER HEALTHCARE FOR ALL
Why does my prescription cost so much?
IN EVERY PROBLEM THERE IS AN OPPORTUNITY

40% of patients abandon treatment when a prior authorization is required.  

10% of prescriptions require a manual intervention.  

10% of people who abandon medication do so because of cost.  

87% of healthcare professionals say understanding prescription costs is a significant or moderate challenge.  

64% of clinicians report waiting at least one day for prior authorization processing.

2. Frost & Sullivan, “The impact of the prior authorization process on branded medications.”  
4. Yang, Y et al. Quality and Variability of Patient Directions in Electronic Prescriptions in the Ambulatory Care Setting. Submitted to JAMIA, October 2017  
5. NPR-Truven Health Analytics Health Poll  
6. Engine Group and Surescripts, survey of 502 U.S. healthcare professionals conducted in October/November 2018  
How do we solve this problem before the patient arrives at the pharmacy counter and take advantage of the opportunity to increase medication adherence?
REAL-TIME PRESCRIPTION BENEFIT ALLOWS PRESCRIBERS TO CHOOSE THE BEST MEDICATIONS FOR PATIENTS, THE FIRST TIME

What is presented with Real-Time Prescription Benefit?

<table>
<thead>
<tr>
<th>Coverage Alerts</th>
<th>Age and quantity limits, prior authorization and step therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Options</td>
<td>Retail, mail order and specialty</td>
</tr>
<tr>
<td>Patient Pay Details</td>
<td>Patient cost details</td>
</tr>
<tr>
<td>Alternative Drugs</td>
<td>Preferred formulary/lower cost options</td>
</tr>
</tbody>
</table>

All information presented to the prescriber is patient specific and delivered to the prescriber within their e-prescribing workflow in under 2 seconds.
TRANSFORM HOW CLINICIANS, PHARMACISTS & PATIENTS INTERACT

ACCURATE DATA UPDATED IN REAL TIME
Real-Time Prescription Benefit shows up to five alternatives based on patient information pulled directly from PBMs into clinicians’ EHR workflows.
Coverage alert: Prior authorization required

EHR INTEGRATED & FORMULARY BASED
The e-prescribing process begins while the patient is still in the clinic.

AUTOMATED ELECTRONIC PRIOR AUTHORIZATION
Clinician is shown if prior authorization is required. If so, Electronic Prior Authorization is initiated, reducing administrative work and speeding time to therapy.

PROTECT PATIENT & PROVIDER CHOICE
Surescripts ensures network neutrality. This means no steerage to just one pharma-sponsored drug. With therapeutic alternatives displayed on-screen, the clinician selects the ideal medication option for the patient.

THE RESULT: NO STICKER SHOCK AT PHARMACY
Together, the clinician and patient are able to make the best choice of therapy. Price transparency decreases prescription abandonment and increases medication adherence.
HERE’S WHAT SURESCRIPTS REAL-TIME PRESCRIPTION BENEFIT LOOKS LIKE:
SOME RESULTS FROM THE FIELD:

In a recent survey of Allscripts’ users who had adopted Surescripts Real-Time Prescription Benefit:

- 93% of the time prescribers reported that patients realized out-of-pocket savings
- 85% of prescribers reported that real-time benefit information improved patient satisfaction
- Over 50% of prescribers reported that having real-time benefit information reduces the need for follow on pharmacy communication

In a recent case study with Aurora Health Care, Surescripts Prior Authorization had the following benefits:

- Reduced clinic staff overtime by 51%
- Cut 10 minutes of active work time from the average prior authorization
- Reduced prior authorization wait time by more than two days
- Improved medication pickup rates at integrated pharmacies by 6 percentage points
To serve the nation with the single most trusted and capable health information network, built to increase patient safety, lower costs and ensure quality care.
2001: THE INDUSTRY SEES AN URGENT NEED TO REPLACE PAPER PRESCRIPTIONS.
Pharmacy associations form SureScript Systems to enable e-prescribing. The three largest PBMs form RXHub to connect payers and prescribers.

2008: THESE COMPETING ORGANIZATIONS FORM A HISTORIC ALLIANCE AS SURESCRIPTS.
The goal: build a national network to deliver comprehensive patient information to the point of care, turning data into actionable intelligence.

TODAY: SURESCRIPTS IS THE NATION’S LARGEST HEALTH INFORMATION NETWORK.
And the Surescripts Network Alliance is tackling the industry’s biggest challenges as they evolve.
ENHANCE PRESCRIBING

E-Prescribing

Specialty Medications

Prior Authorization

Benefit Optimization

INFORM CARE DECISIONS

Medication History

Clinical History

Clinical Direct Messaging

Insights & Alerts

ACTIONABLE INTELLIGENCE
AT CRITICAL POINTS IN CARE
### REACHING ACROSS THE HEALTHCARE SYSTEM

| 258 MILLION | 1.61 MILLION |
| Patients¹ | Healthcare Professionals¹ |

### DELIVERING ACTIONABLE INTELLIGENCE AT SCALE

| 17.7 BILLION | 5.24 MILLION |
| Transactions¹ | E-Prescriptions Each Day¹ |

### MAKING AN IMPACT ON PATIENTS

| 64% Improvement | Up to $8,032 |
| In Accuracy of Prescription Transactions From 2016–2018² | In Savings on a Single Prescription¹ |

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