Beyond Interoperability: Leveraging Technology and Networks for Information on Demand

2017 OPEN MINDS Strategy and Innovation Institute
AJ Peterson, VP/GM Interoperability
What Post-Acute Healthcare Communities Have in Common

HIGH COMPLEXITY reimbursement level/models

Shift towards VALUE-BASED CARE

DIFFERENT MARGIN PROFILE than acute care

Care models tend to be LESS EPISODIC

Need to CONNECT to the rest of healthcare

Play a CARE COORDINATION role for the community

Highly MOBILE workforce
Working together to enable new models of care … supporting health at the community level and care at the individual level

- **Analytics**
  - Stratification
  - Registries
  - Cohorts
  - Analytics
  - Performance Measures Reporting

- **Care Coordination**
  - Aggregate Data
  - Case Management
  - Referrals
  - Assessments
  - Performance Measures Reporting

- **Evidence-based Practices**
  - MST
  - Reaching Recovery
  - First Episode
  - Schizophrenia
  - Motivational Interviewing

- **Consumer Engagement**
  - Text Messaging
  - Consumer Engagement
  - Provider Email
  - Appointment Reminders
  - Patient Education

- **Interoperability**
  - HIE Connectivity
  - Direct Messaging
  - Telehealth
  - Provider Referrals
  - Querying Networks
If the Market is Shifting… What is Required?

Tools designed to enable views of the population in new ways, with new capabilities on creating cohorts, and attributing lives to ALL models of care.

Agencies must ask new questions about clinical and financial data and be able to share and ACT on that information in real time.

Automated platforms that integrate data to drive new insights to the care TEAM assigned to manage and coordinate care for a population.
Human Services

Lags in Technology Adoption

Only 50% of Human Services uses a commercial EHR

Source: ONC Data Brief March 2013
Biggest Identified Technology Gaps
As providers prepare for value-based care

#1 Interoperability
#2 Reporting/Analytics

Source: KLAS Survey
Post-Acute as Care Coordinator

- Attributed to your ACO
- Attributed to your Bundle
- Attributed to another ACO
- Attributed to another hospital's Bundle

CCD Data | ED Alerts | ACO Patients | Bundle Payments | Care Plans | Referral Data

- Outpatient Clinic
- Care Coordination
- Primary Care Office
- Consumer's Home
- Population Health
- Skilled Nursing Facility
- Other Acute Care Facility
Connectivity and Health Information Exchange

Enabling the Community

- carequality
  - 2M+ TRANSACTIONS
  - 210,000 ORGANIZATIONS

- HIT Vendors (EHR)
- Health Systems

HIE
- Health Information Exchanges (HIE)
- Records exchange supports better transitions of care

INTERFACE CONNECTIONS

- Labs
- Public Health Registry Reporting
- Alerting

MILESTONE
- 15.6M+ CONSUMERS
- 945,658 INDIVIDUAL PROVIDERS
- 68,819 ORGANIZATIONS
- 2M+ TRANSACTIONS
- 1M+ TRANSACTIONS
- 833k+ TRANSACTIONS

Integrated, secure access for WHOLE person care

CareConnect Inbox Collaboration Tool
- Send and receive referrals
- Supports the exchange of clinical data, including (C-CDAs), clinical assessments and progress notes

- Internal and external communication
- CareRecord Integration
- Direct Messaging

CONNECTING TO THE LARGER ECOSYSTEM
CONNECTING OUTSIDE YOUR FOUR WALLS
Expanded Connectivity – CareConnect

68,819 ORGANIZATIONS

945,658 INDIVIDUAL PROVIDERS

IMMUNIZATION REGISTRIES

HIT PARTNERS

HEALTH INFORMATION EXCHANGES

LABORATORIES

NETSMART REFERRALS

OmniCare PharMerica FrameworkLTC QS/1
Integrated Care Network

- ED alerts support increased network care coordination
- Ability to send referrals to all providers
- Effectively manage transitions of care
- On demand retrieval of clinical data from community providers
- Reduction in medical errors and manual processes
The Situation

Communities of data sharing partners have formed, brought together by specific needs.

Some are geographically based, but many other types of data sharing communities also exist.
Carequality creates a standardized, national-level interoperability framework to link all data sharing networks.

Carequality is creating a web of interconnected communities.
How do you get nationwide connectivity? Clinic by clinic, hospital by hospital?

- Data sharing networks have already connected many participants
- The connections grow exponentially by connecting these networks

If you connect six clinics, you might reach a few dozen physicians.
If you connect six networks, you can reach thousands of physicians.
What’s the Difference Between an HIE and Carequality?

- Based on organizational priority
- Low funding
- Low Adoption
The Carequality Network
A Common Interoperability Framework to Share Health Data

- **Connect** to all community providers on the Carequality network
- **Aggregate documents** across the care continuum
- **Robust consent service** ensures the right access is granted
- **One connection** to the Carequality network means a connection to every provider who participates in Carequality
- Common rules of the road
  - Legal obligation and agreement to abide by the same rules
- Well-defined technical specifications
  - Shared rules are not enough; detailed guide for implementers required
- A participant directory
  - To connect using the common standards, systems must know the addresses and roles of each participant

Information is integrated within EHR workflows
The Sequoia Project Board of Directors

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Joyce Sensmeier, Health Information Management Systems Society (HIMSS)
Ryan Stewart, Dignity Health
Micky Tripathi, PhD, Massachusetts eHealth Collaborative (MAeHC)
Carequality Committee or Workgroup

- **Steering Committee**
  - The Steering Committee is responsible for Carequality’s strategic direction, and for the development and oversight of the Carequality Interoperability Framework

- **Advisory Council**
  - The Advisory Council is responsible for representing a broad spectrum of healthcare stakeholders to inform the Steering Committee’s decisions about the Carequality Interoperability Framework

- **Workgroups:**
  - Trust Workgroup
  - Query Workgroup
  - Patient Authorization Technical and Policy Workgroups
  - Document Content Workgroup
Steering Committee

**Member**
- Dr. Michael Hodgkins, American Medical Association (chair)
- Dr. Steven Lane, Sutter Health (vice chair)
- Hans Buitendijk, Cerner
- Kathy Lewis, Surescripts
- Andrew Kling, Geisinger
- Aaron Seib, National Association for Trusted Exchange (NATE)
- Kevin Isbell, Kaiser Permanente / Care Connectivity Consortium
- Mark Janiszewski, Greenway Health
- Leslie Kelly-Hall, Healthwise
- Rob Klootwyk, Epic
- Tushar Malhotra, eClinicalWorks
- Ryan Stewart, Dignity Health
- Kitt Winter, Social Security Administration
- Nancy Beavin, Humana

**Stakeholder Area**
- Physicians
- Provider Organization
- Vendor
- Network
- Provider Organization
- Network
- Provider Organization
- Vendor
- Consumer
- Vendor
- Vendor
- Provider Organization
- Government Agency
- Payer
Advisory Council

Member
Janine Akers, DataFile Technologies
Douglas Angove, Sutter Health
Janis Bartlett, Arkansas Office of Health Information Technology
Melynda Brown, Wellstar Health System
Dr. Sandy Chung, Fairfax Pediatric Associates
Jim Cook, Browsersoft
Robert Cothren, CAHIE (California Association of HIEs)
Peter Della Porta, The Progressions Companies
Peter DeVault, Epic
Dr. Margaret Donahue, Veterans Health Administration (VHA)
Dr. Matt Eisenberg, Stanford
Navi Gadhioik, eClinicalWorks
Jared Gurfein, OneRecord
David Kendrick, My Health Access Oklahoma
Anne Kimbol, Texas Health Services Authority/HiETexas
Dr. David Mendelson, IHE
Jeff Nadler, Teladoc
AJ Peterson, Netsmart
Richie Pfeiffer, lifeIMAGE
Derek Plansky, Palm Beach ACO
Mark Segal, GE Healthcare
Seth Selkow, Kaiser Permanente
Lauren Thompson, Department of Defense
Sidney Thornton, Intermountain Healthcare
John Voith, athenahealth
Brian Yeaman, Coordinated Care Oklahoma

Stakeholder Group Represented
Other Vendor
Provider Organization
Government Agency
Provider Organization
Physician
Vendor
Network
Behavioral Health
Vendor
Government Agency
Provider Organization
Vendor
PHR Provider
Network
Provider Organization
Provider Organization
Other Healthcare Setting
Vendor
Other Network
Vendor
EHR Vendor
Provider Organization
Government Agency
Provider Organization
Vendor
Network
The Carequality Process

1. Interoperability Need Identified
2. Use Case Proposed
3. Steering Committee
4. Use Case Adopted
5. Implementer
6. Workgroup Chartered
7. Use Case Workgroup
8. Implementation Guide Developed
9. Advisory Council
10. Adoption Recommended
# Carequality Implementers

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<th>HIEs</th>
<th>Technology Vendors</th>
<th>Service Providers</th>
<th>PHRs</th>
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<td>commonwell HEALTH ALLIANCE</td>
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CommonWell Health Alliance - Members
Scale is Important to Improving Interoperability

- CommonWell Health Alliance and Carequality are increasing nationwide health IT connectivity by providing additional health data sharing options to the more than 15,000 hospitals, clinics, and other healthcare organizations actively deployed under the Carequality framework or CommonWell network.

  - CommonWell will become a Carequality implementer on behalf of its members and their clients, enabling CommonWell subscribers to engage in health information exchange through directed queries with any Carequality participant. This includes the ability to share with all Epic EHR based systems.

- Carequality and CommonWell participants represent more than **90% of the acute-care** EHR market and nearly **60% of the ambulatory-care** EHR market.


Accelerating Health Data Sharing in America

18,000+ Clinics
800+ Hospitals
250K+ Providers
100% Growth in Records Exchanged Each Month

6 Implementers are in production to date, with 3 more expected Q2
Displaying the Outside Data Where it’s Most Useful

• The goal is to present a complete picture of the patient using both internal and external data, directly within the EHR and not require the clinician to toggle to external systems.

• For patients with schedule appointments the Clinical Summaries should be pulled from all sources of care (Hospital, Clinic, VA, CVS, Surescripts, etc.) and presented directly to the provider at the point of care.
Oregon Providers Already Live 4/11/17

- Advantage Orthopedic & Sports Medic
- Bend Spine and Pain Specialists, LLC
- Broadway Medical Clinic LLP
- Calcagno Pediatrics, P.C.
- Cardinal Clinics
- Central Oregon ENT
- Central Oregon Family Medicine, PC
- CHARLES S. GRAHAM, D.O., P.C. dba C
- Columbia Gorge Neurology
- COLUMBIA MEDICAL CLINIC, P.C.
- Comprehensive Pain Consultants, LLC
- David Panossian, M.D., P.C.
- Elderhealth & Living Corporation
- Family Walk-In Medical Center, PC
- Grapevine Women’s Health and GYN
- Grassroots Gynecology LLC.
- Health First Family Medicine LLC
- HIGH DESERT THERAPY ASSOCIATES, INC
- James J. Biemer Jr., M.D., P.C.
- Jennifer Tuttle
- Justin T. Johnson Inc.
- Karoline Woitke, PA
- Kent R Walker DO
- Kirk Weller MD
- Klamath Women’s Center, LLC
- Laurelhurst PT Clinic
- Mark R. Hollemon, D.O., LLC
- Multnomah Orthopedic Clinic
- Neurology Associates NW
- Northwest Lifestyle Medicine, Inc.
- Northwest Pediatric Gastroenterology
- Northwest Urology
- Oregon City Medical
- Oregon Coast Podiatry
- Pain Care Specialists of Oregon, LLC
- Phoebe Rich, MD, LLC
- River Road Medical Group
- Walter Hunter, MD
- Sahali Health Clinic
- Sellwood Podiatry
- Sherwood Family Medicine PC
- Shine Integrative Physical Therapy
- Song Bird Healing Arts, LLC
- Springfield Family Physicians
- Synergy Women’s Health Care
- Therapeutic Associates Inc.
- United Urgent Care & Family Medicine
- Valerie A. Hoveley Blatz, GNP
- Valley Women’s Health, P.C.
- Van Amburg Surgery Care
- Western Psychological & Counseling Services
- WHITE CITY MEDICAL CLINIC, LLC
Larger Oregon Providers Already Live 4/11/17

- Asante
- Bend Memorial Clinic
- Kaiser Permanente – Northwest
- Legacy Health
- Oregon Health & Science University
- Providence Health and Services Oregon and California
- Salem Health
- The Portland Clinic
  - *Tuality
    - Will be migrating to Epic July’17 through Dec’18
  - *St. Charles Health System
    - Announced migration to Epic, May 2018

- OCHIN – Oregon Members
  - Asher Community Health Center
  - Benton Health Services
  - Clackamas County Public Health Dept.
  - Clatsop County
  - Crook County Health Dept.
  - Deschutes County Health Dept.
  - Dunes Family Health
  - Grant County Health Department
  - Jefferson County Health Dept.
  - La Clinica Del Valle Family Care Centers
  - La Pine Community Health Center
  - Lincoln Community Health Center
  - Linn County Department of Health Services
  - Mosaic Medical
  - Mt Hood Women’s Health
  - Multnomah County Health Dept.
  - Oregon Health and Science University
  - Oregon Youth Authority
  - Outside In
  - Pacific University
  - Rinehart Clinic
  - Rogue Community Health
  - Tillamook County
  - The Public Health Foundation of Columbia County
  - University of Western States
  - Virginia Garcia Memorial Health Center
  - Wallace Medical Concern
  - Waterfall Community Health Center
  - Winding Waters Clinic PC
Netsmart and OCHIN (Enabling Carequality)

- **Netsmart CEO Mike Valentine.** “Accelerating the Carequality Interoperability Framework makes it possible to supply health data for the ‘whole person’ and improve the health of these high-risk populations.

- OCHIN has been working with Netsmart and for 18 months to accelerate exchange with:
  - Lifeworks
  - Multnomah County Mental Health and Addiction Services
  - Cascadia Behavioral Healthcare

- For over 12 months Direct message exchange has been available between OCHIN, Lifeworks and Multnomah. Carequality is expected to go-live in early June 2017.

Serving over 500,000 users in more than 24,000 organizations across all 50 states in these communities:

- Behavioral health
- Intellectual and developmental disabilities
- Child and family services
- Addiction treatment
- Autism
- Home health, hospice, private duty and palliative care
- Public health
- Vital records
- Continuing Care Retirement Community, Skilled Nursing, Assisted & Independent Living
A Public-Private Health Data Sharing Network

- Participating organizations mutually agree to support a common set of standards and specifications that enable the establishment of a secure, trusted, and interoperable connection among all participating Exchange organizations for the standardized flow of information.

  “Through the Carequality Framework, Surescripts is breaking down legacy barriers and collaborating with other industry leaders to make nationwide healthcare interoperability a reality,” said Tom Skelton, CEO of Surescripts. “We are excited to increase the reach of our network and unleash the power of our National Record Locator Service to enable nationwide data sharing to improve patient care.”

  “Providers using our network-enabled services expect us to constantly improve their connection to each other and those they share patients with because we don’t succeed unless they can effectively coordinate care,” said John Voith, Director of Interoperability at athenahealth. “Carequality is helping us to advance this work with our providers.”

  “Sutter Health is excited to be one of the first large healthcare organizations to take advantage of the Carequality framework to support broad clinical information exchange for improved care coordination,” said Dr. Steven Lane, Clinical Informatics Director of Privacy & Interoperability for Sutter Health. “Many of our patients also receive care from community providers utilizing a variety of EHRs. Carequality promises to remove historic barriers to sharing information between different vendors’ EHRs allowing patients’ information to follow them wherever they choose to receive care. We sincerely hope that all EHR vendors and existing HIE networks commit to implement Carequality’s straightforward framework to finally make interoperability a part of the standard way that we provide the safest most cost-effective care to all of our patients.”
2017 Projects

• Advancing Queries for Patient Access
  – Identify, and provide recommendation on addressing, barriers to routine acceptance of Patient Request queries
• Document Content Requirements
  – Propose document content requirements for future application within the Carequality Framework
• Data element access (aka FHIR APIs) – June
  – Developing a project proposal for Carequality’s role
• Patient-based notifications – August
  – Proposal for tech architecture and Carequality’s role
• Image exchange – October
  – Sharing simple images through QBDE structure
Population-based CASE MANAGEMENT

- Risk Stratification
- Gaps in Care Monitoring

Risk Stratification
- Dashboard view of Gaps in Care, high-risk individuals
- Longitudinal view of clinical information over a period of time
- Alerts and Notifications – notifying the right people at the right time to engage and support the individual where they need help the most

REFERRAL MANAGEMENT

- Internal Referrals
  - Coordinating agency
  - Team assignment
- External Referrals
  - Social supports
  - Professional network
  - Provider referrals

Value-based Care BILLING COMPLEXITY Configuration

Connectivity and Collaboration Tool
- Send and receive referrals
- Supports the exchange of clinical data, including (C-CDAs), clinical assessments and progress notes
- Internal and external communication
- CareRecord Integration
- Direct Messaging

Knowing your data ENABLES you to
- MITIGATE RISK
- INCREASE ROI
- IDENTIFY FOCUS AREAS
- IMPROVE CLIENT OUTCOMES

MEASURES REPORTING
- Supports Meaningful Use
- Alerts and decision support
- Organizational comparative analysis
- Consumer intervention and risk mitigation

DATA REPORTING MODULES
- Population Health Management
- Clinical Quality Measures (CQMs)
- MHSIP Consumer Survey

IMPROVE CLIENT OUTCOMES
IDENTIFY FOCUS AREAS
INCREASE ROI
MITIGATE RISK

VALUE - BASED CARE

Population - based

CASE MANAGEMENT

Dashboard view of Gaps in Care, high-risk individuals
Longitudinal view of clinical information over a period of time
Alerts and Notifications – notifying the right people at the right time to engage and support the individual where they need help the most

Value-based Care BILLING COMPLEXITY Configuration
Integrated Network

ACUTE CARE
• Parkland Hospital
• Baylor Scott & White Health

BEHAVIORAL HEALTH
• Mental Health Services
• I/DD Services
• Social Services
• Child and Family Services
• Veteran Services

Referrals, Transitions of Care, Alerts, Clinical Integration

State Hospitals (Netsmart)
Cohens Veterans Network
Local Mental Health Authorities