

The logo for HIMSS 18, featuring the word "Himss" in a lowercase sans-serif font and the number "18" in a large, bold, blue sans-serif font.

The leading health information and technology conference

WHERE **THE WORLD** CONNECTS FOR HEALTH

Conference & Exhibition | March 5–9, 2018

Las Vegas | Venetian – Palazzo – Sands Expo Center

SUTTER HEALTH: A HEALTH DATA SHARING CASE STUDY

Session 58, March 6, 2018

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Privacy, Information Security & Interoperability, Sutter Health

Dave Cassel – Vice President of Carequality, The Sequoia Project

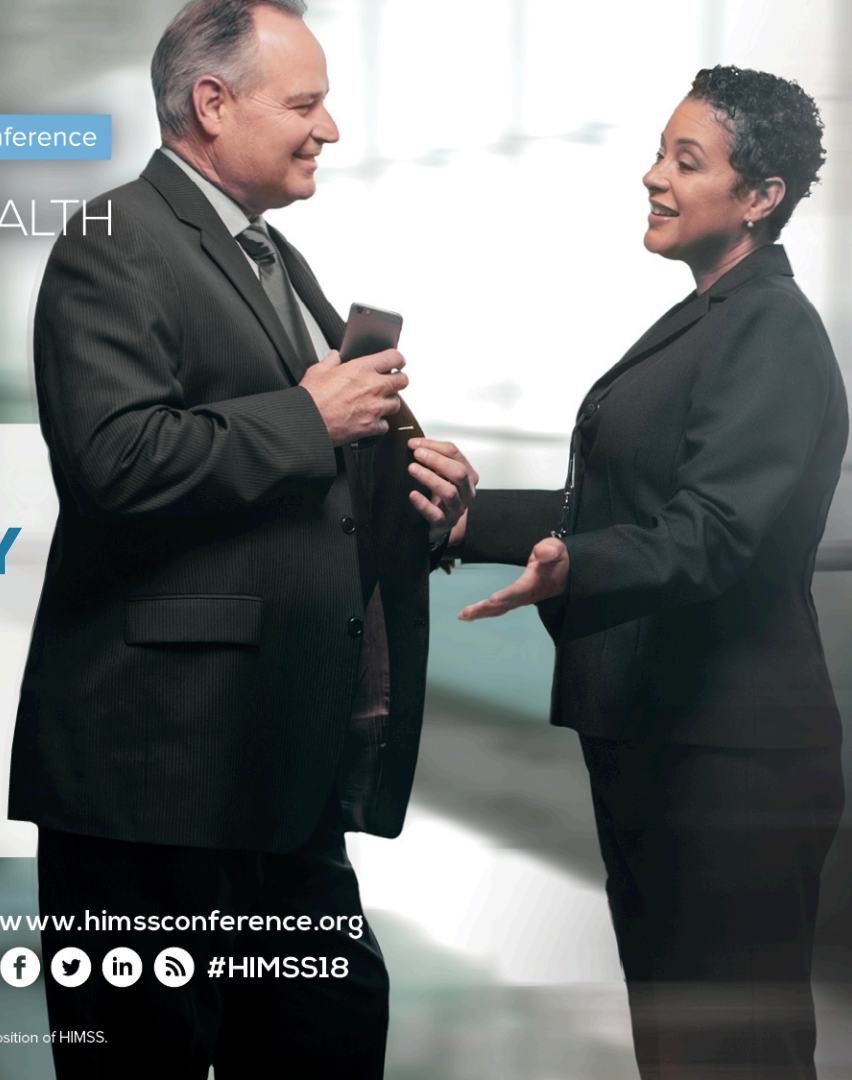
COMMITMENT

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DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.



Conflict of Interest

- Steven Lane serves as a member of the Azuba Advisory Board.
- Dave Cassel has no real or apparent conflicts of interest to report.

Agenda

- Sutter Health: A Case Study
- Carequality: A Case Study
- Developing A Strategy For Exchange

Learning Objectives

- Demonstrate the real world application of a national interoperability framework
- Design an onboarding plan that incorporates lessons learned during pilot use
- Adapt a health data sharing strategy that incorporates multiple national-level approaches

Sutter Health: A Case Study



- Not-for-profit health system with headquarters in Northern California
- Serving over 3 million patients across more than 100 communities
- Supports:
 - 5,500 physicians
 - 24 acute care hospitals
 - Regional home health, hospice and occupational health networks
 - Medical research, education and training

Why Exchange Matters To Sutter Health

- Northern California – Mobile, tech savvy population
- Early adopter of health IT
 - First EMR in California, 1999
 - First PHR in the US, 2001
- Competitive healthcare market – Patients regularly move between healthcare systems, physician practices
- Consolidating market – Providers joining larger systems with need to integrate historic medical record data

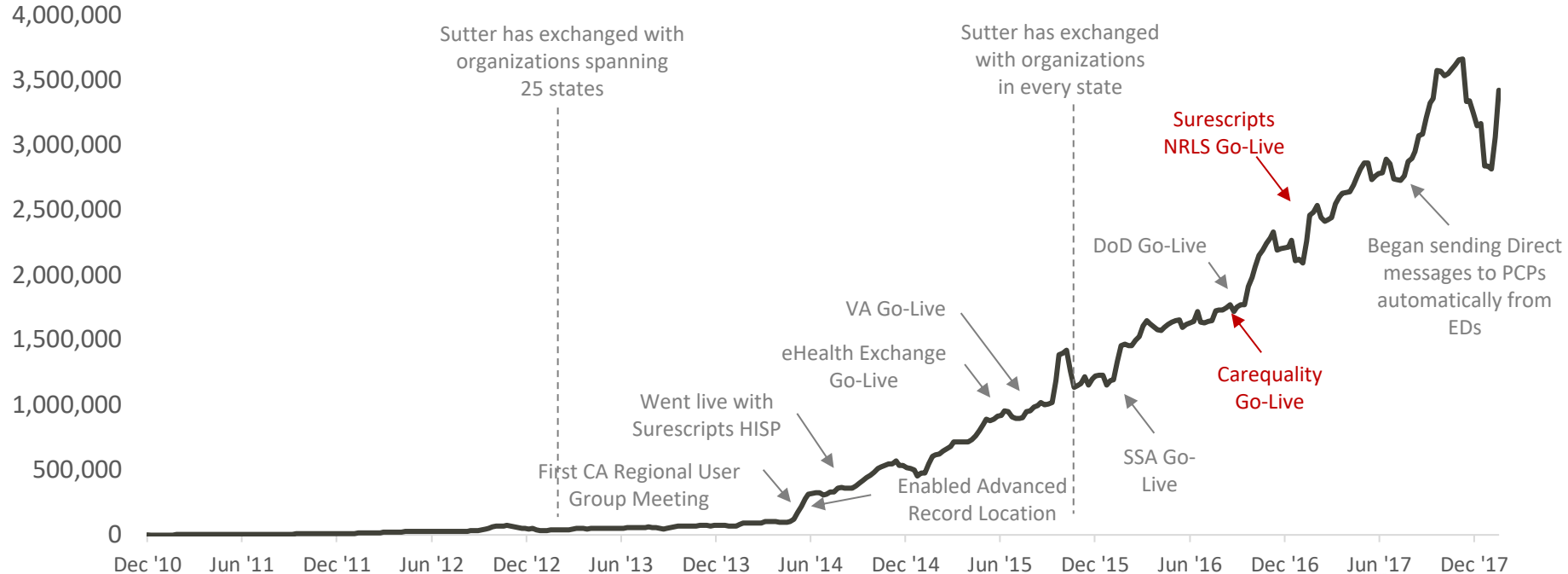
Multi-Platform Interoperability Approach

Sutter Health Leverages Many Types of Connectivity

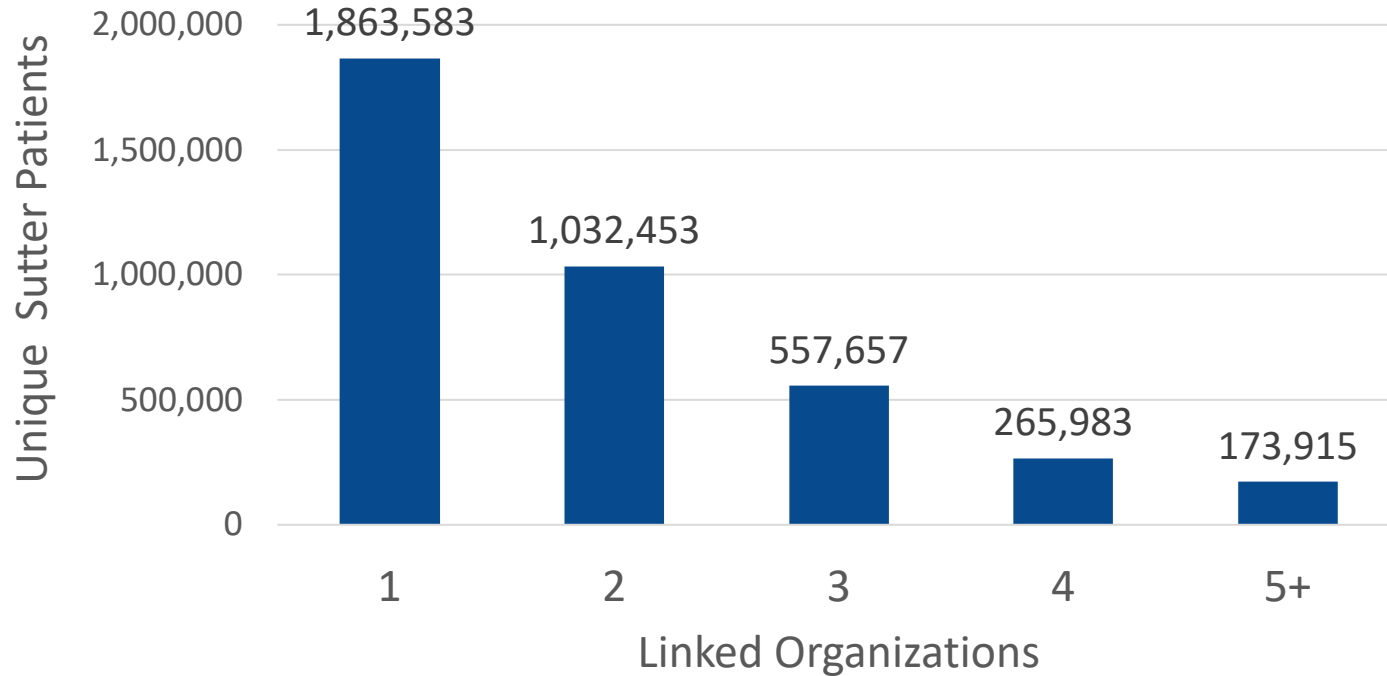
- Epic Care Everywhere
- eHealth Exchange
- Santa Cruz Health Information Exchange
- Direct messaging via Surescripts HISP
- Carequality
- Surescripts NRLS



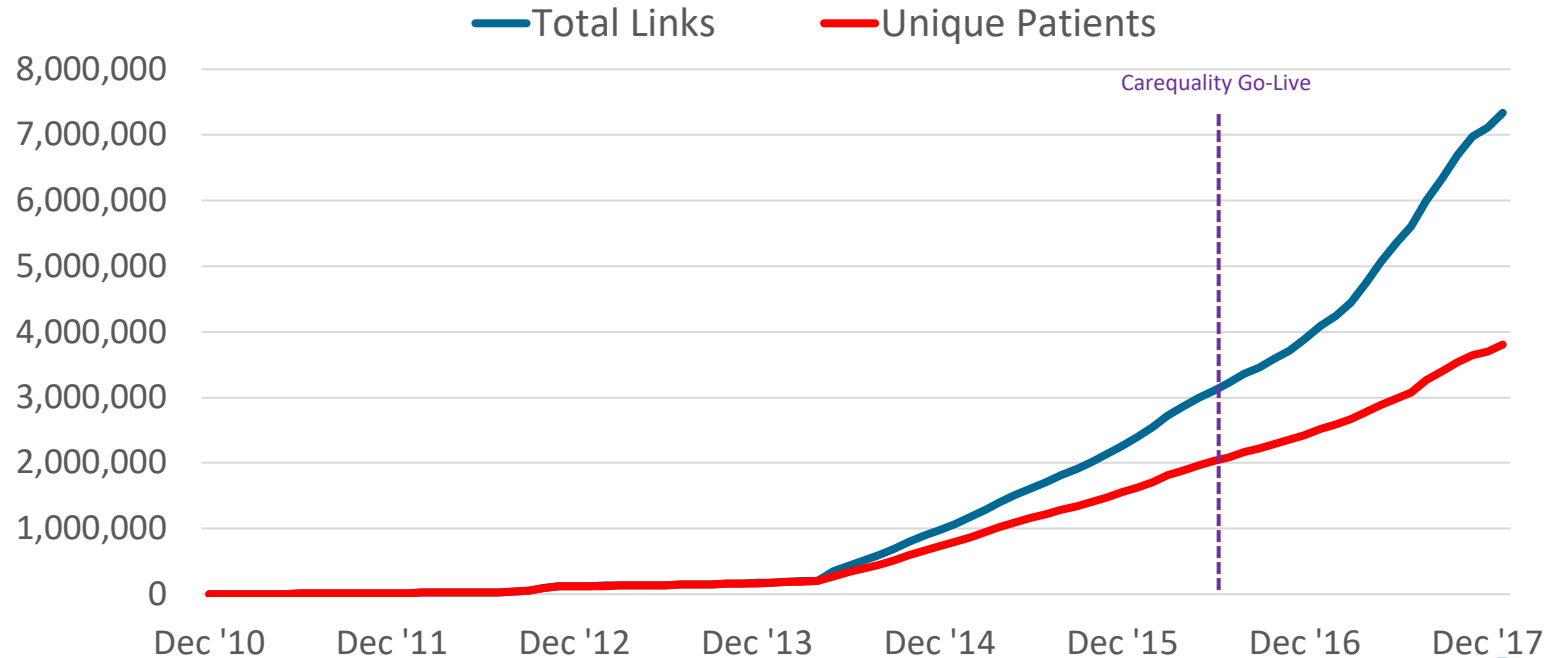
Monthly Patient Records Exchanged



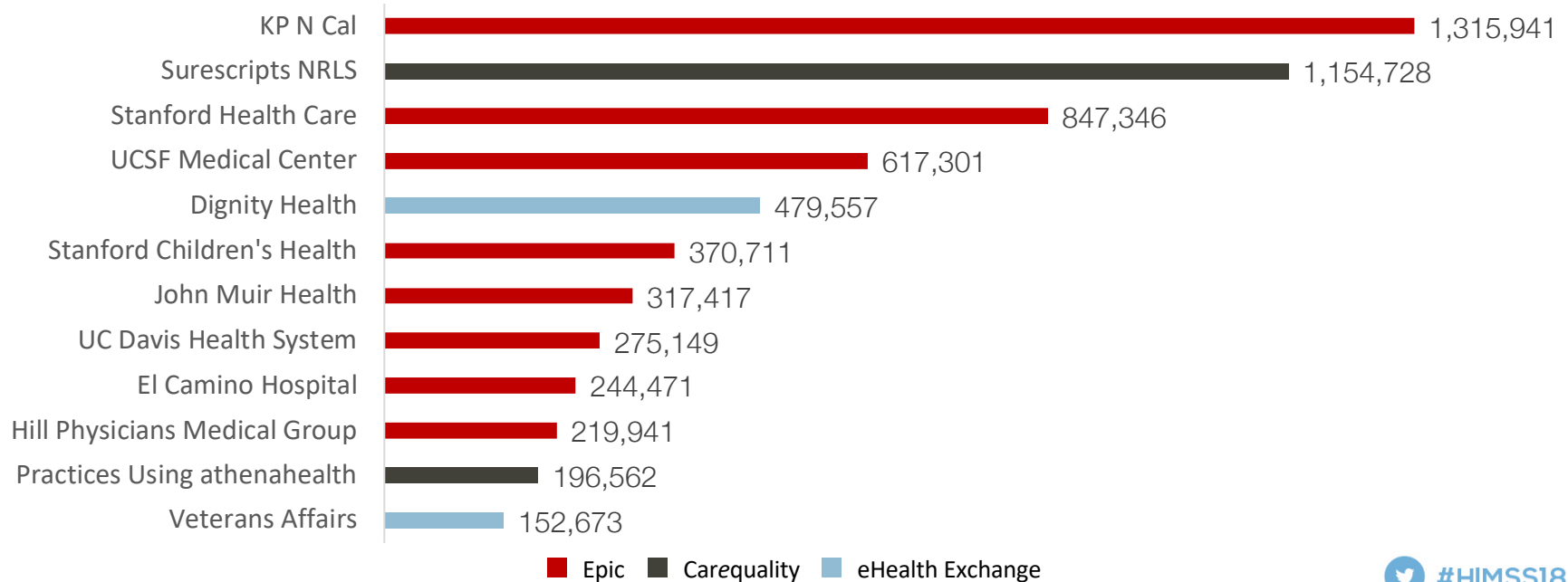
Linked Organizations per Patient



Cumulative Sutter Health Patient Links

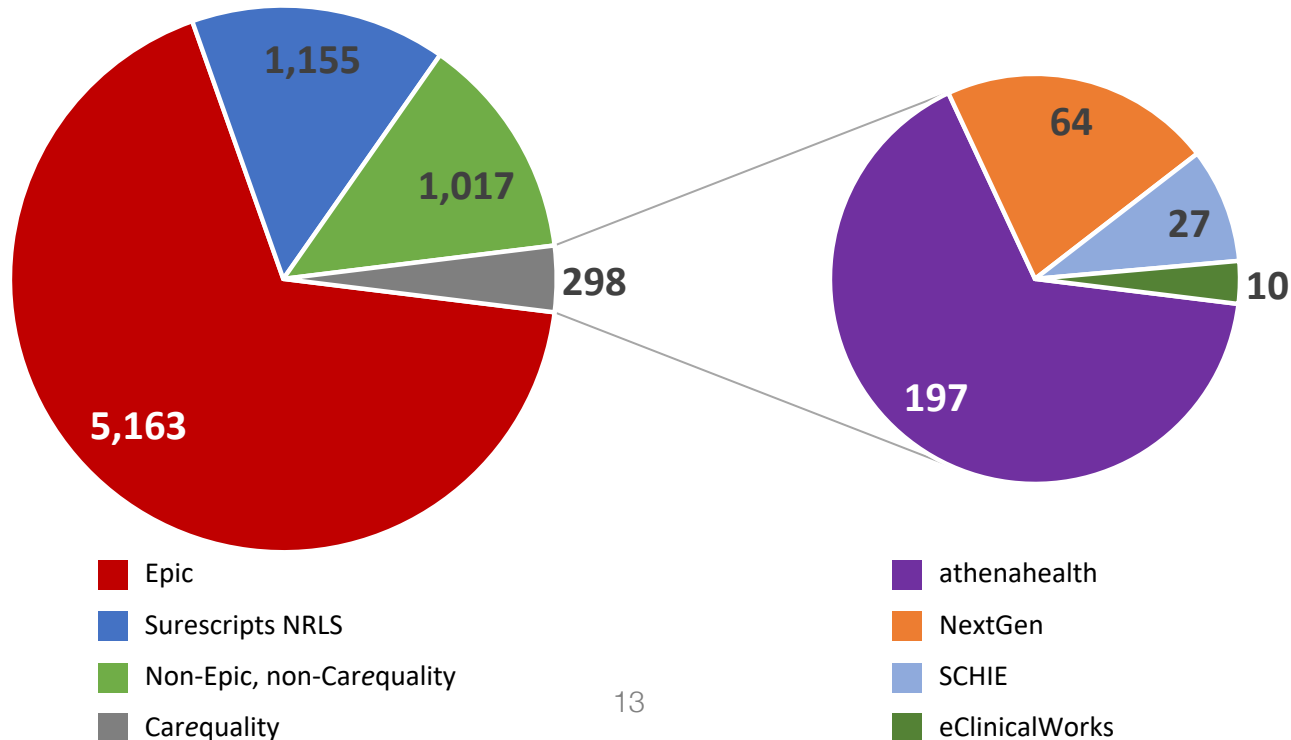


Top Trading Partners by Patient Links

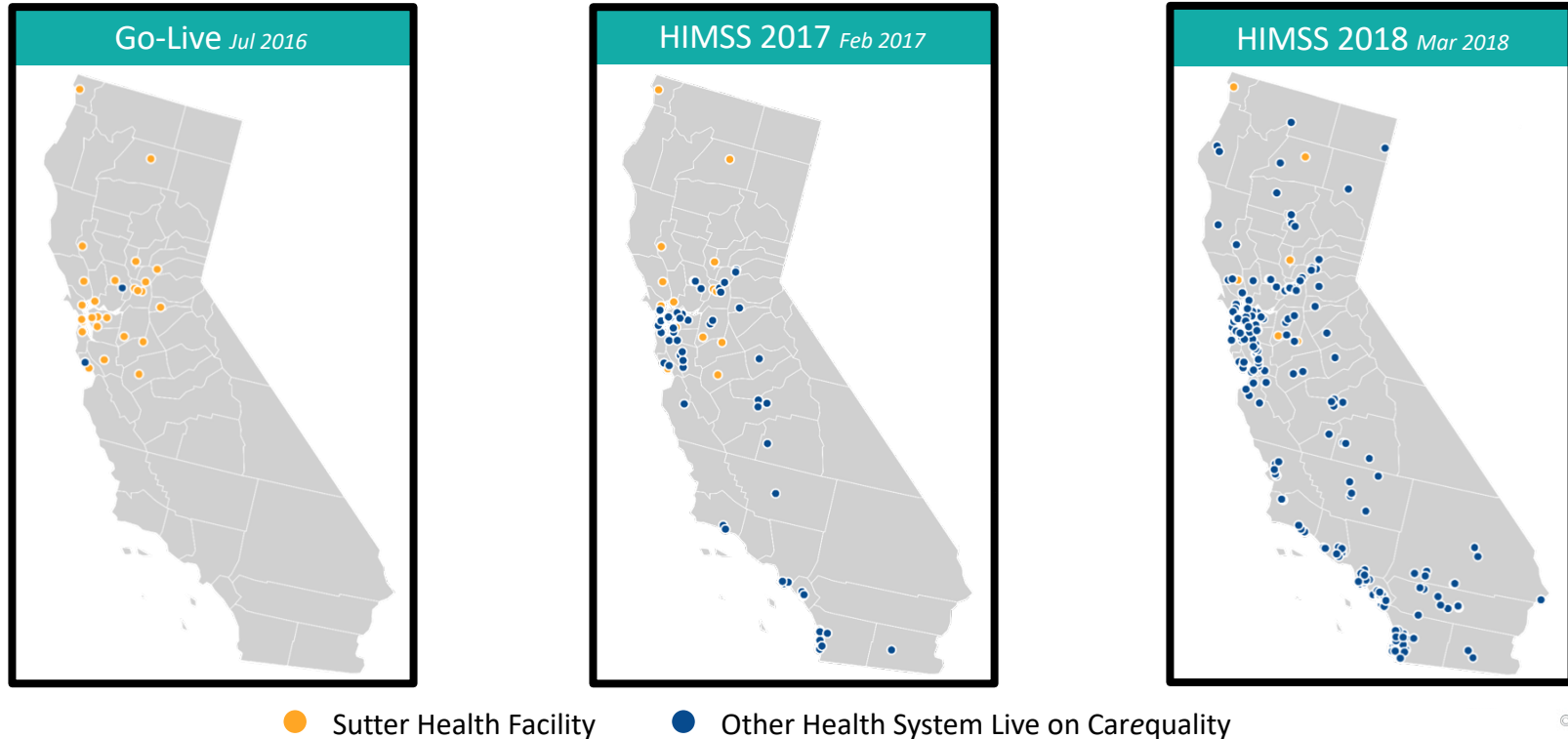


Patient Link Sources

(in thousands of patients)

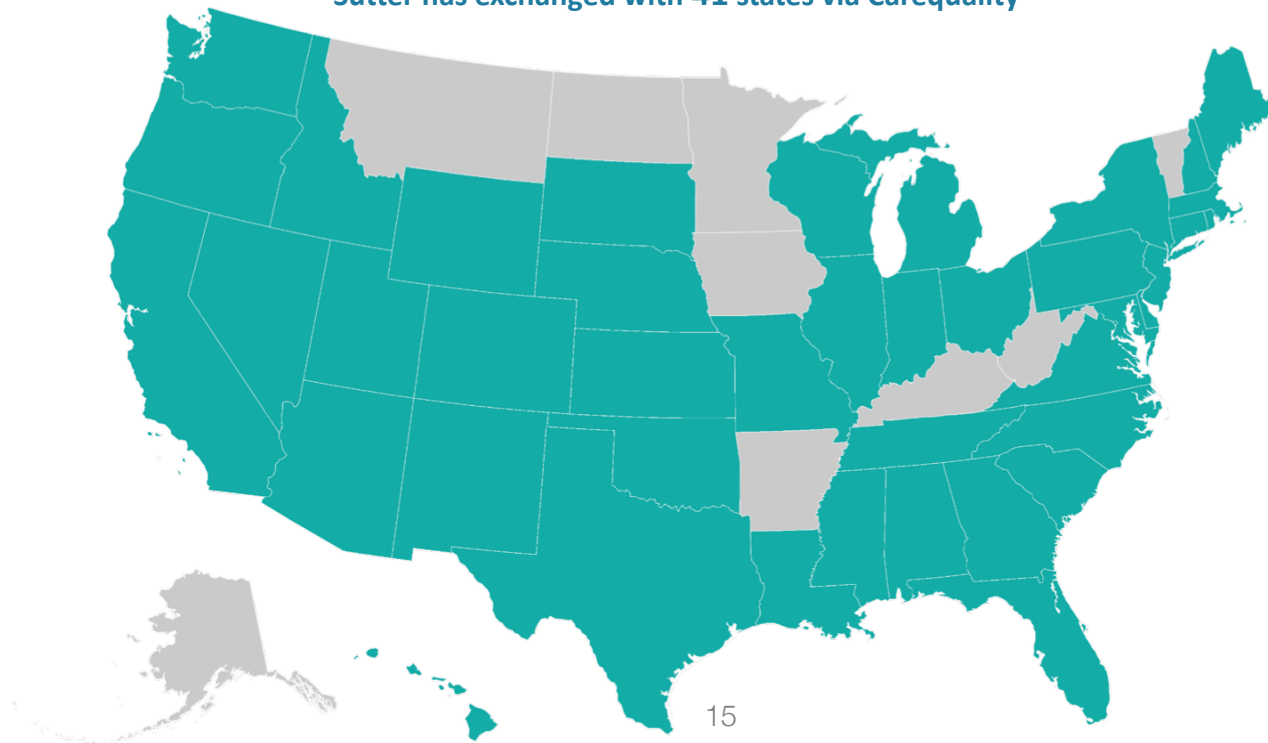


Carequality in California

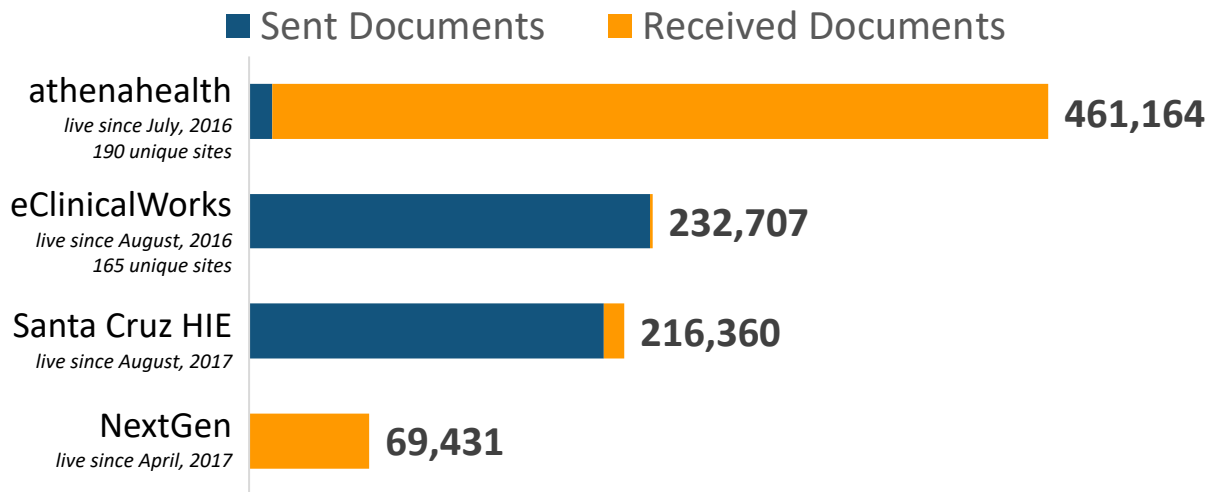


Nationwide Exchange

Sutter has exchanged with 41 states via Carequality



Top Carequality Trading Partners by Implementer



Factors Leading to Imbalanced Exchange

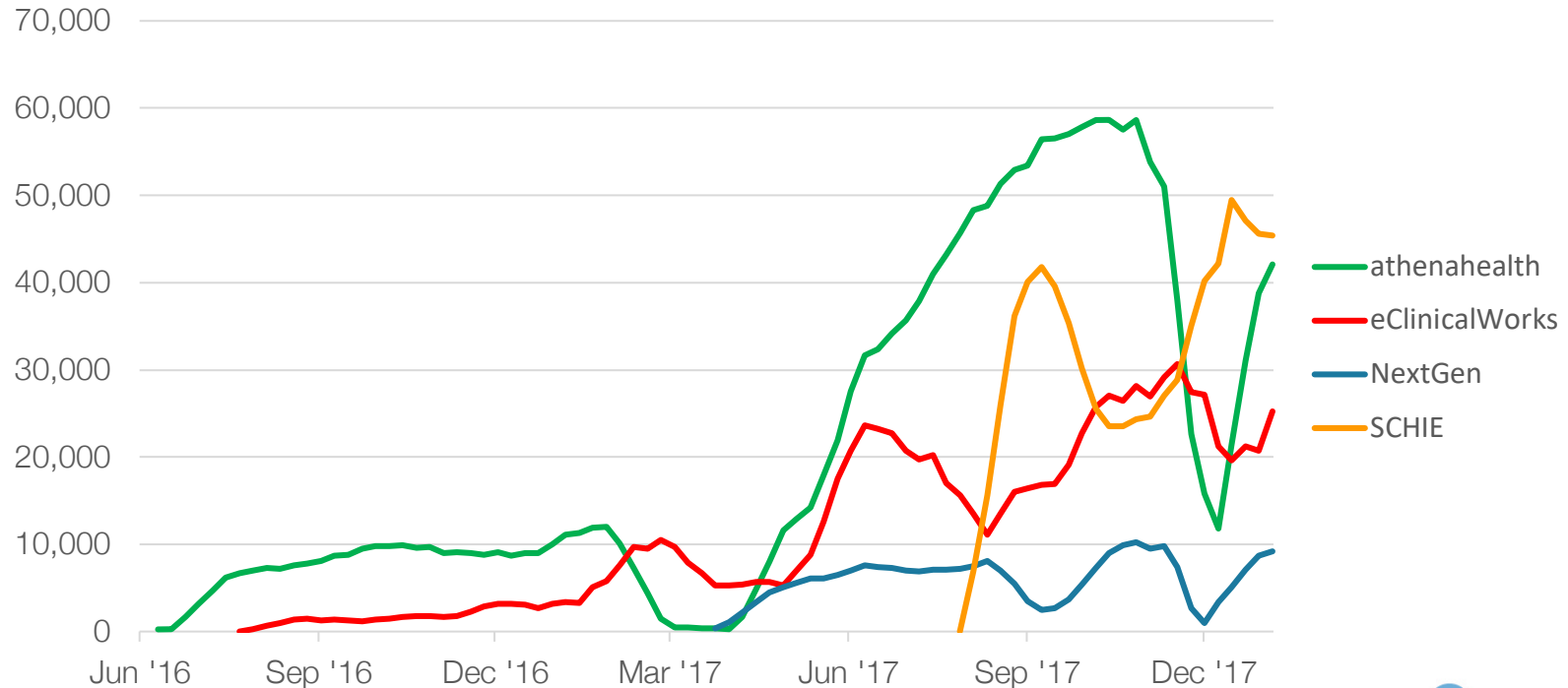
Automated queries

Patient matching

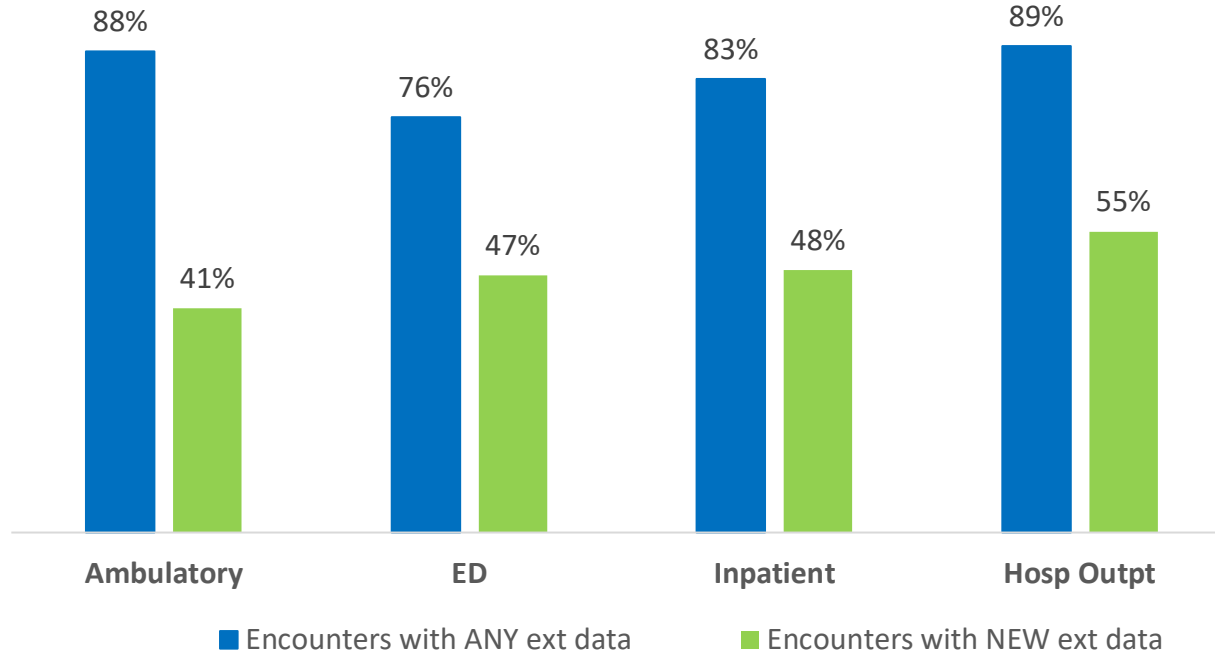
Opt in vs. opt out

Reuse of patient IDs

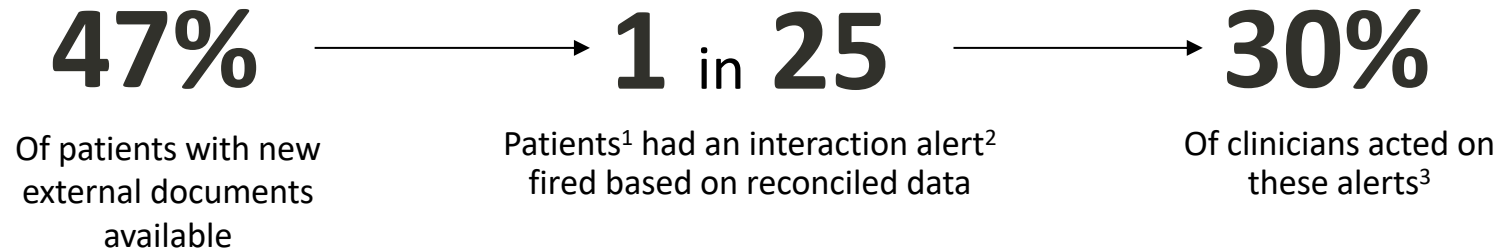
Monthly Documents Exchanged via Carequality



Availability of External Data at Time of Encounter



Sutter Emergency Departments – July, 2017



¹ Patients with new external documents available

² Drug-drug interaction or drug-allergen interaction

³ Actions include modifying or cancelling the order

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Carequality: A Case Study



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Introduction to Carequality

A standardized, national-level interoperability framework to link all data sharing networks



Common rules of the road: In order for the varied participants to trust each other with health information, everyone needs to have a legal obligation to abide by the same rules.



Well-defined technical specs: Shared rules are not enough; clear standards must be laid out in an implementation guide that all implementers can follow.



A participant directory: To connect using the common standards, systems must know the addresses and roles of each participant.

The Network Effect

*How do you get nationwide connectivity?
Clinic by clinic, hospital by hospital?*

Data sharing networks have already connected many participants within communities. The connections grow exponentially by connecting these networks.

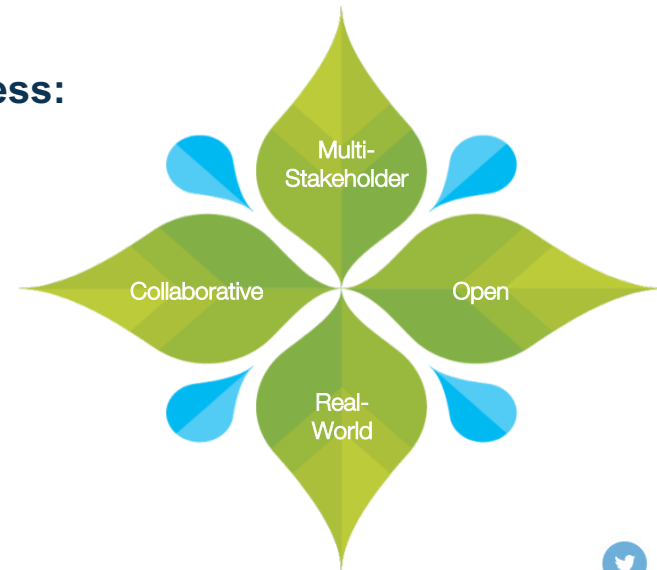
If you connect six clinics, you might reach a few dozen physicians.

If you connect six communities, you can reach thousands of physicians.

Broadening Interoperability Opportunities

Diverse Stakeholders Use Collaborative Process:

- Physicians
- Consumers
- Government Agencies
- Data Sharing Networks
- Payers
- Behavioral Health
- Acute Care
- Long Term/ Post-Acute Care
- Hospice and Home Care
- Research
- Public Health
- Vendors
- Standards Development Orgs.
- Pharmacies
- EMS Services



Carequality Evolution

2014 Need to connect disparate local & national networks recognized by industry

2015 Carequality Interoperability Framework published by stakeholders across the healthcare continuum

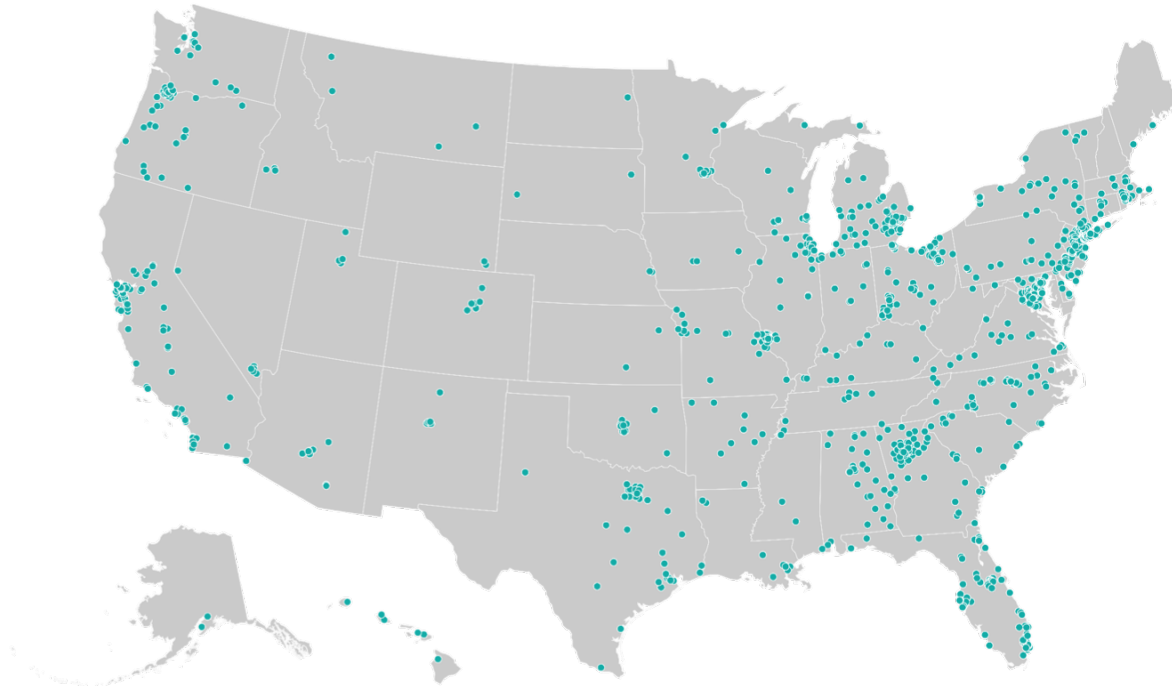
2016 Live exchange begins July 1 with Sutter Health (Epic EHR) and an athenahealth provider

2017 Connectivity accelerates as implementers onboard.
50% of all physicians now connected and 2.4M documents exchanged monthly

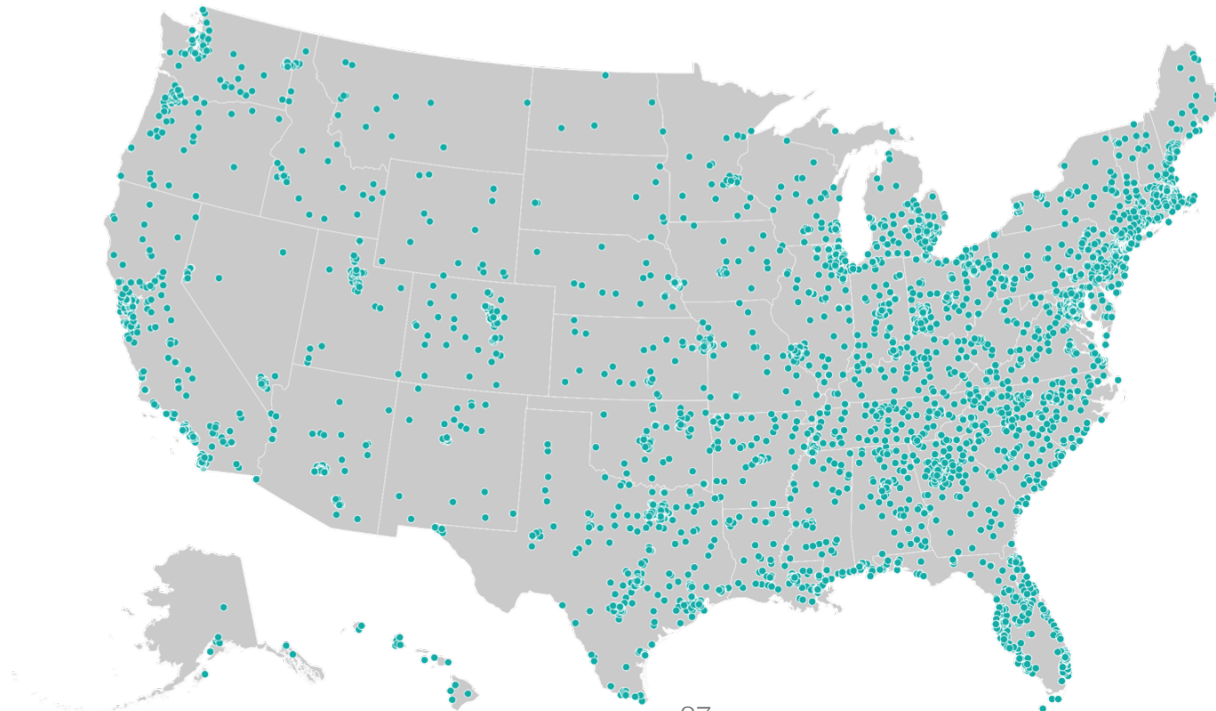
Carequality Members



Carequality Live Sites – HIMSS 2017



Carequality Live Sites – HIMSS 2018



On Boarding Process



Becoming a
Carequality Implementer



Becoming a
Carequality Connection

Lessons Learned on Driving Adoption Internally

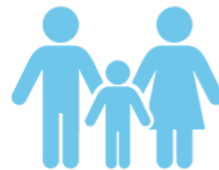


- From connecting technologies to connecting people
- Motivating staff to access new health data
- How to utilize outside information

Looking Ahead



Changing Interoperability
Landscape



Future of Exchange For
Clinicians & Patients

Questions



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