

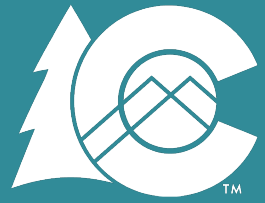
OeHI

Office of eHealth Innovation

EHEALTH COMMISSION MEETING

VIRTUAL CONFERENCE

December 13, 2023



OeHI

Office of eHealth Innovation

NOTE:

NEW ZOOM WEBINAR LINK

DIAL IN BY PHONE:

US: +1 719 359 4580

OR: +1 669 900 6833

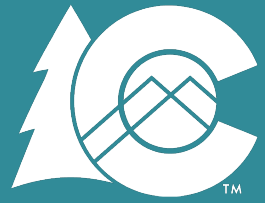
WEBINAR ID: 834 3429 8716

IF YOU ARE EXPERIENCING AUDIO OR PRESENTATION DIFFICULTIES DURING THIS MEETING,

PLEASE TEXT ISSUES TO

Amanda Malloy: 440-796-8957

<div> <div>December Agenda</div> <div>  </div> </div>		
Title	Start	Duration
Call to Order <ul style="list-style-type: none"> Roll Call and Introductions Approval of November Meeting Minutes December Agenda and Objectives <i>Kaakpema “KP” Yelpaala, Chair</i>	12:00	5 mins
Announcements <ul style="list-style-type: none"> Opening Remarks OeHI Updates-eHealth Commission Updates Decision Items & Action Items <i>Dianne Primavera, Lt. Governor and Director of the Office of Saving People Money on Health Care</i> <i>Stephanie Pugliese, Director, Office of eHealth Innovation (OeHI)</i> <i>eHealth Commission Members</i>	12:05	10 mins
Commissioner Spotlight: Dr. Arthur Davidson <i>Dr. Arthur Davidson MD, MSPH, Senior Physician Advisor, Denver Health</i>	12:15	45 mins
Commissioner Spotlight: Michael Archuleta <i>Chief Information Officer, HIPAA & Information Security Officer, Mt. San Rafael Hospital</i>	1:00	45 mins
Public Comment Period	1:45	5 mins
eHealth Commission Meeting Closing Remarks <ul style="list-style-type: none"> Open Discussion Recap Action Items Future Agenda Items Adjourn Public Meeting <i>Kaakpema “KP” Yelpaala, Chair</i>	1:50	10 mins



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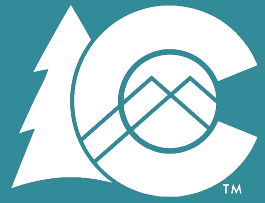
Opening Remarks

*Dianne Primavera, Lt. Governor and
Director of the Office of Saving People
Money on Health Care*

OeHI and eHealth Commission Updates

- OeHI Team Updates
- Commissioner Updates?

Note: If you are experiencing audio or presentation difficulties during this meeting, please text 440-796-8957



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Office of eHealth Innovation

Commissioner Spotlight:
Dr. Arthur Davidson, MD, MSPH

Senior Physician Advisor, Denver Health

Information Exchange: Challenges and Opportunities to Support Public Health Goals

Colorado eHealth Commission

December 13, 2023

Arthur Davidson, Commissioner

Goals

- Describe a specific public health (PH) problem
- Review recent Federal IT advancements, opportunities and horizons
 - ONC: Trust Exchange Framework and Common Agreement (TEFCA)
 - CDC: Data Modernization Initiative (DMI)
 - Intersection of TEFCA and DMI
- Describe how these emerging opportunities may address public health and other needs

Communicable Disease (and Condition) Reporting History and Current Requirements

HISTORY

- 1878: Congress authorized PHS – cholera, smallpox, plague and yellow fever
- 1901: all states required to report
- 1916: (polio epidemic), 1918 (influenza epidemic) heightened interest
- 1925: all states reporting

CURRENT COLORADO REQUIREMENTS:

- More than 100 diseases and conditions should be reported
 - Immediate (e.g., measles, rabies, meningitis)
 - 30 days (e.g., C. diff, blood lead levels)

National COVID-19 Public Health Data Workload

COVID-19:

Monitoring Disease Burden*

DATA COLLECTED

COVID-19 Electronic Laboratory Reporting (CELR)

813M

COVID-19 tests

Case-Based Disease Surveillance

63M

individual-level
case reports

79M

aggregate
case reports

National Syndromic Surveillance Program

7.4M

COVID-19 emergency department visits

Immunization Data Systems

551M

vaccinations administered

Genomics Data

2.1M

published sequences

Healthcare Data

140TB

of clinical and administrative data

COVID-NET** (Population-based surveillance systems)

Hospitalization
data from

250

hospitals in **14** states

*Data estimates current as of Feb 24, 2022; test count represents COVID-19 Nucleic Acid Amplification Test (NAAT) results; additional information at: <https://covid.cdc.gov/covid-data-tracker/>;

**<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covid-net/purpose-methods.html>

HOW IS ELECTRONIC CASE REPORTING DIFFERENT THAN TRADITIONAL CASE REPORTING?*

Electronic Case Reporting (eCR)

Traditional Case Reporting



For more information, visit the website

cdc.gov/eCR

HOW DOES ELECTRONIC CASE REPORTING (eCR) WORK?



Patient is diagnosed with a reportable condition, such as COVID-19



Healthcare provider enters patient's information into the electronic health record (EHR)



Data in the EHR automatically triggers a case report that is validated and sent to the appropriate public health agency if it meets reportability criteria



The public health agency receives the case report in real time and a response about reportability is sent back to the provider



Public health agency reaches out to patient for contact tracing, services, or other public health action



cdc.gov/eCR

BENEFITS OF ELECTRONIC CASE REPORTING

eCR replaces manual case reports that are generally done by mail, phone, fax, or through an online portal.



FOR HEALTHCARE PROVIDERS

- Saves time by eliminating manual data entry and reporting
- Streamlines reporting to multiple jurisdictions
- Fulfills the [CMS Promoting Interoperability Program](#) requirements for eCR
- Can fulfill legal reporting requirements
- Can be implemented for all reportable conditions

FOR PUBLIC HEALTH AGENCIES

- Enables bidirectional data exchange
- Provides more complete data to support outbreak management
- Efficiently monitors the spread of reportable diseases
- Reduces response time with automated information
- Supports submission of case-based data (without identifiable information) to CDC through the [National Notifiable Diseases Surveillance System](#)

Health Data, Technology, and Interoperability:

Certification Program Updates, Algorithm Transparency, and Information Sharing (proposed rule, April 2023)

- **2022**, CMS required eligible hospitals/critical access hospitals in the Medicare Promoting Interoperability Program and eligible clinicians reporting on the Promoting Interoperability performance category in Merit-based Incentive Payment System (MIPS) to **report on use of eCR** as part of the Public Health and Clinical Data Exchange Objective.
- Electronic case reporting measure was optional in prior program years. Due to this new program requirement, more Health IT Modules are expected to certify the criterion in the coming year(s).
- **2024**, maximum penalty of 9% for MIPS health care providers

<https://www.federalregister.gov/documents/2023/04/18/2023-07229/health-data-technology-and-interoperability-certification-program-updates-algorithm-transparency-and>

eCR Case Reporting Sites

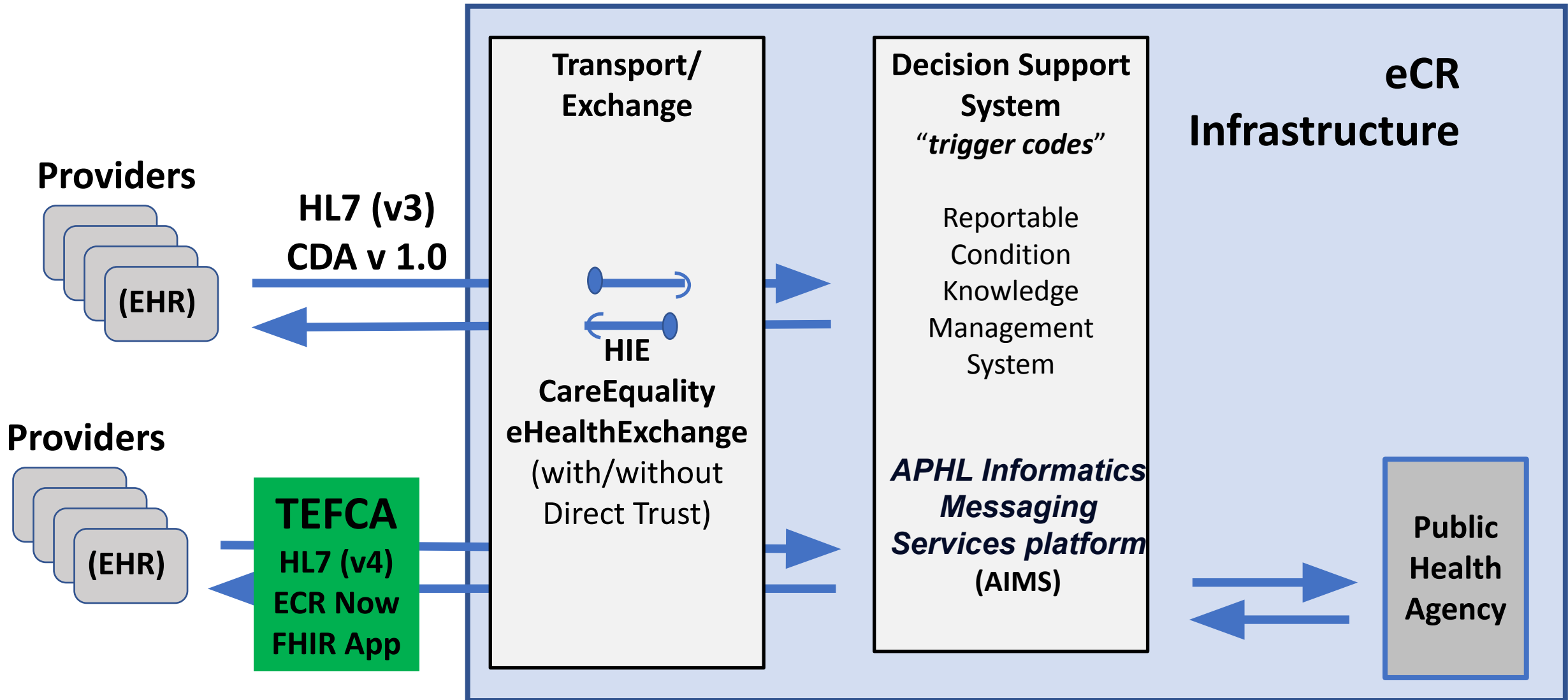
On January 27, 2020,
over 153 facilities were using eCR.



As of April 18, 2023,
over 25,000 facilities are using eCR



eCR depends on “trigger codes” (e.g., LOINC, SNOMED, ICD-10)



TEFCA: Trusted Exchange Framework and Common Agreement

- **2016**, Congress passes 21st Century Cures Act:
 - TEFCA designed to address interoperability and rapid information sharing with public health , between providers, especially with different EHRs has been problematic.
- **2023**: Office of Inspector General (OIG) published final rule
 - Establishes Cures Act authorized penalties (up to **\$1million**/violation) if OIG determines information blocking:
 - health IT developers of certified health IT,
 - health care providers, and
 - health information exchanges, and health information networks.
- **CY 2024**: Four required public health measures:
 - syndromic surveillance reporting,
 - immunization registry reporting,
 - electronic reportable laboratory result reporting, **and**
 - **electronic case reporting,**



GOAL 1

Establish a universal governance, policy and technical floor for nationwide interoperability



GOAL 2

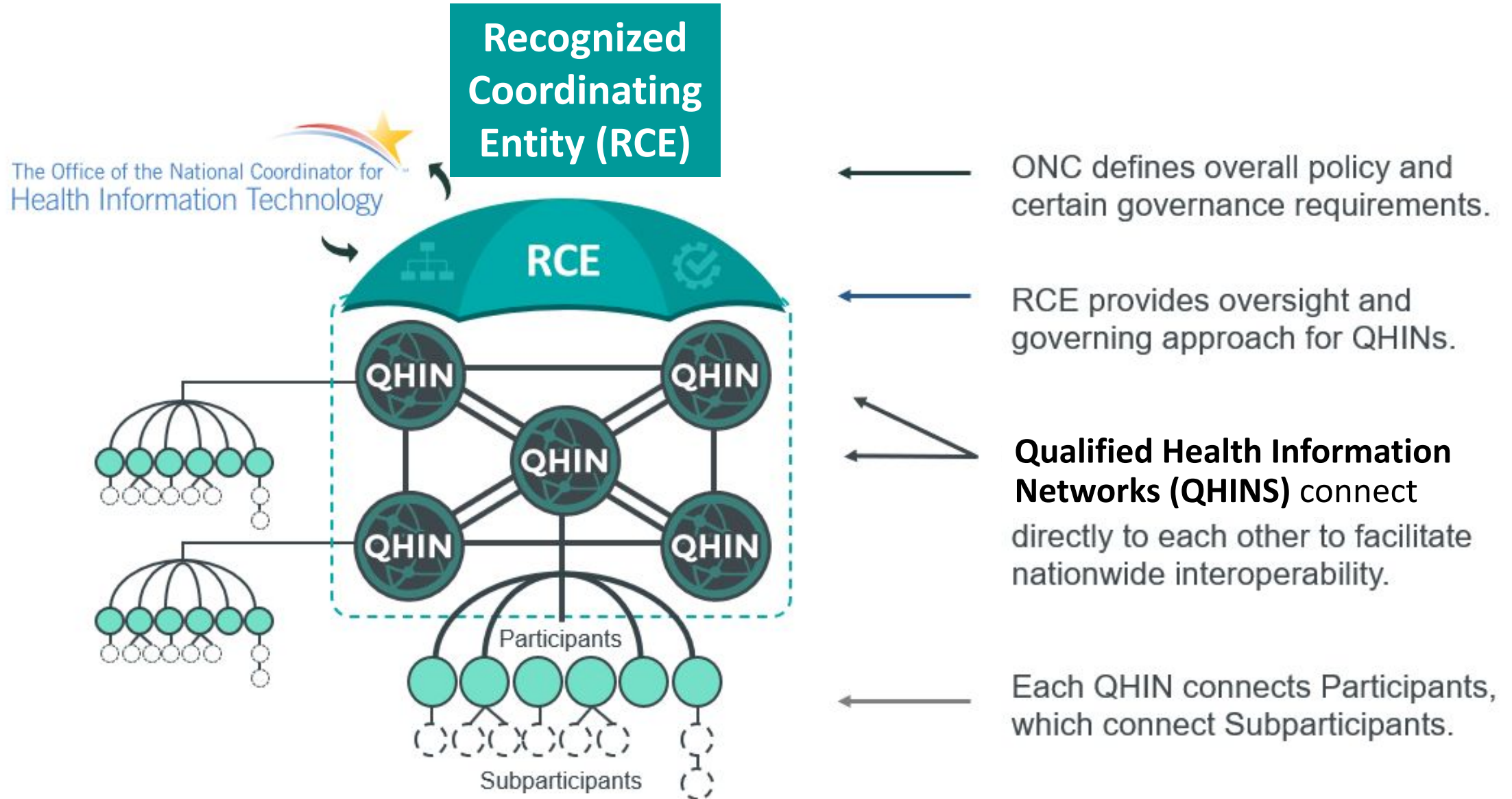
Simplify connectivity for organizations to securely exchange information to improve patient care, enhance the welfare of populations, and generate health care value



GOAL 3

Enable individuals to gather their health care information

How will it work?





[2019, ONC cooperative agreement with IHE: Integrating the Healthcare Enterprise]

- **Document-Based exchange** (e.g., CDA, HL7v2, FHIR Content) using IHE transport mechanisms (e.g., Cross-community Patient Discovery, Cross-community Access, Cross-Community Document Reliable Interchange)
- **Two Exchange Modalities**
 - » QHIN Query (Patient Discovery and Document Query & Retrieve)
 - » QHIN Message Delivery
- **Six Authorized Exchange Purposes**
 - » Treatment
 - » Payment
 - » Health Care Operations
 - » Individual Access Services
 - » Government Benefits Determination
 - » **Public Health**
- **QHINs are ~~not live~~, in production ~~yet~~—planned for December 2023**

TEFCA Components

ONC
TEFCA
RECOGNIZED
COORDINATING
ENTITY

Applicants Onboarded/Approved

- eHealth Exchange
- Epic Systems
- Health Gorilla
- Konza
- MedAllies
- CommonWell Health Alliance
- Kno2

V1.1

V1.1

V1.1
(QHIN
Onboard)



Trusted
Exchange
Framework

Nov 23



Common
Agreement

Dec 23



Standard
Operating
Procedures

Jun 22



QHIN
Technical
Framework

Jan 22



QHIN
Onboarding

Feb 23/Dec 23



Metrics

Oct 20



Sequoia
Project

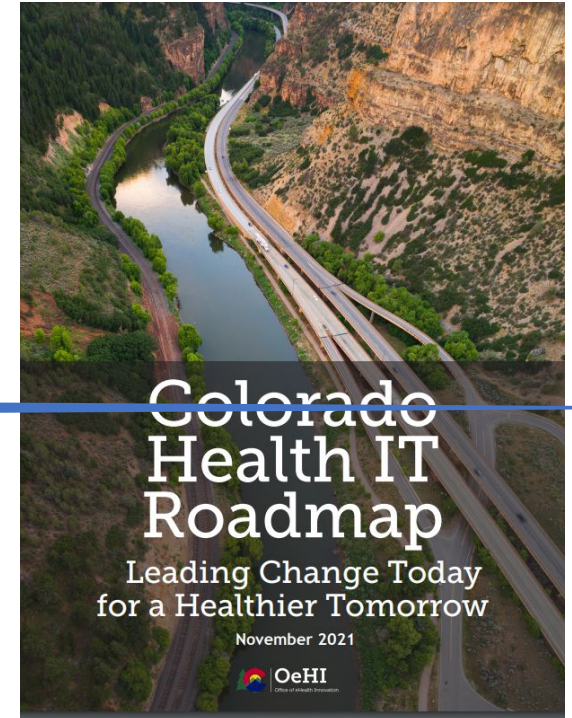
Governing
Approach

Aug 23

← Live Dates →

TEFCA Principles

- standardization
- openness and transparency
- cooperation and non-discrimination
- privacy
- security and safety
- access
- equity, and
- public health



CDC Data Modernization Initiative (DMI)

- **Multi-year, multi-billion-dollar** effort to modernize data across the federal and state/local/tribal public health landscapes.
- Not just about technology, but about putting the right **people, processes, and policies** in place to deliver real-time, high-quality information on both infectious and non-infectious threats.
- Ultimate goal: move from siloed and brittle public health data systems to connected, resilient, adaptable, and sustainable **'response-ready'** systems

Priorities



DMI Technologies

- **“North Star” Blueprint**

- ARCHITECTURE: shared blueprint for modern data exchange
- CDC FRONT DOOR: Streamlining how public health data comes into CDC
- IMPROVING PUBLIC HEALTH DATA PIPELINES: storage, processing, and linkage

- **Tools & Standards**

- VITAL STATISTICS MODERNIZATION TOOLS
- HL7 FHIR: Enabling FHIR (Fast Health Interoperability Resources)

- **CDC-Wide Solutions**

- CLOUD 101: STORING AND SHARING INFORMATION
- ENTERPRISE DATA, ANALYTICS, AND VISUALIZATION: simplifying data workflows

- **Innovations**

- CDC OPEN TECHNOLOGY: Explore open source data, code and APIs
- ARTIFICIAL INTELLIGENCE / MACHINE LEARNING: solutions for large or complex data

HELIOS FHIR-Accelerator

- **LEADERSHIP:** Joint **ONC** and **CDC** project (2016 CARES and 2020 ARPA funding)
- **GOAL:** Help public health to align with and benefit from the widespread standardization and transformation that is happening around digital health data
- **METHOD:** FHIR-based initiatives leveraging these key assets/attributes:
 - **Modern:** next generation standards framework
 - **Flexible:** offers new paradigms for sharing data
 - **Secure:** industry standard authorization based on OAuth2
 - **Scalable:** just as any web application
 - **Accurate:** well defined data models
 - **Modular:** built on a wide variety of resources



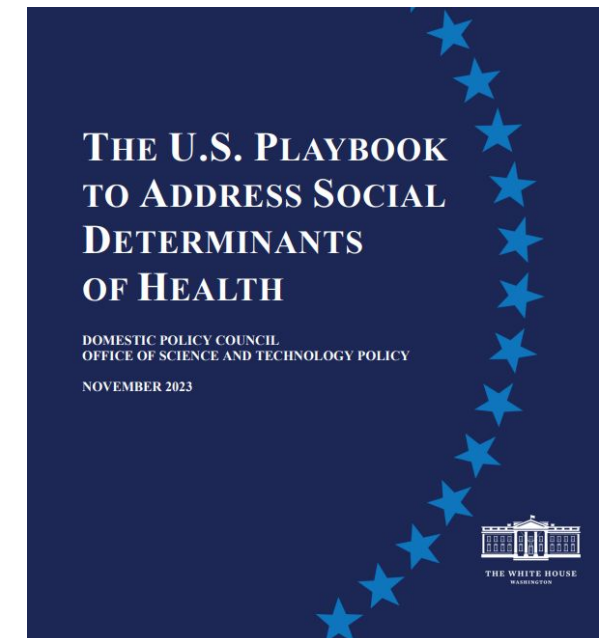
HELIOS FHIR-Accelerator

Current Pilot Activities

- **Deliver Aggregate Information to Public Health**
 - e.g., hospital capacity, supplies
- **Make Data in Public Health Systems Accessible in Bulk**
 - Immunization
 - Vital Records (death) exchanging fact and cause of death data
- **Query and Response**
 - disease investigation follow up (e.g., STI reporting)
 - newborn screening results

Within and external to CDC, FHIR apps being **planned and piloted** for:

- Social determinant of health data exchange (e.g., HL7 Gravity) activities
- Electronic service referrals (Bidirectional Service e-Referrals [BSeR])
 - Tobacco cessation
 - Hypertension
 - Obesity
 - Childhood early intervention
- Support proof of vaccination
 - Rolled out for COVID-19



How the Pieces fit Together

Shared Priorities to Help Advance Public Health

Content

Packaging

Trust Contract



Common
Infrastructure

Certify

How the Pieces fit Together

Shared Priorities to Help Advance Public Health

United States Core Data for Interoperability (USCDI)

Prioritize and harmonize data most crucial to the needs of public health and beyond

FHIR Advancement and Strategy

Adopt standards that can be more easily extended and reused as conditions change

Trusted Exchange Framework and Common Agreement (TEFCA)

Develop common, pre-negotiated agreements to simplify data exchange nationwide



North Star Architecture

Help public health jurisdictions share and analyze data with each other and CDC

Certification of IT & Data Systems

Ensure IT & data systems used by public health are sustainable and meet baseline requirements for security and functionality

Colorado Local Public Health Agencies *(through CALPHO)*

Data/Technology Issues and Recommendations

Issues

- No clear **data governance** structure to inform sharing and exchanging data (**90%**)
- Need for **standardization** of data elements (**90%**)

Recommendations

Data

- Ensure ability for LPHAs to access data for smaller populations
- Establish or review data governance framework for data living inside State-owned systems
- Standardize Data Sharing Agreements for data that lives inside State-owned systems
- Allow access to EHR to improve workflow efficiencies, general data collection and promote standards

Technology

- Collaborative systems development between State agencies and local end-users
- Increase State technical assistance and training for existing platforms
- Increased interoperability between State and local data systems

Discussion - TEFCA Opportunities

Status

- Colorado's Roadmap has us well aligned and ready to move forward
- While TEFCA is voluntary, early CO adopters announced plans to use EPIC QHIN

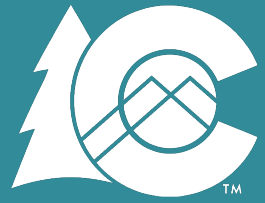
Questions *(2024 will be first full year under operational TEFCA)*

- If TEFCA adoption promotes efficient (e.g., FHIR-enabled) exchange, how should OeHI/eHealth Commissioners explore, encourage,, and/or invest in TEFCA?
- What aspirations/course corrections should Colorado consider as federal investments and advancements in this infrastructure and policy continue?
- Will LPHA receive the benefit of DMI (e.g., FHIR-enabled access to EHR data), if Colorado healthcare providers have limited TEFCA participation?

Thank you

Art Davidson

adavidson@dhha.org



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Office of eHealth Innovation

Commissioner Spotlight: Michael Archuleta

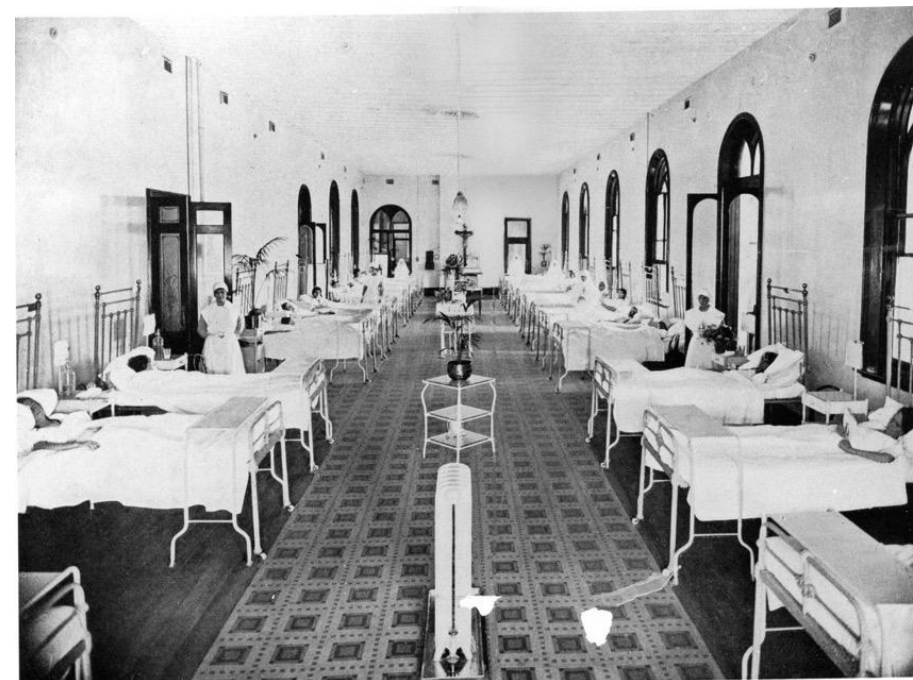
*Chief Information Officer, HIPAA &
Information Security Officer,
Mt. San Rafael Hospital*

WHEN THE FLINTSTONES MET THE JETSONS: TECH-DRIVEN HEALTHCARE TRANSFORMATION



US HEALTHCARE WAS BROKEN BEFORE COVID-19.

Our brave doctors and nurses have worked in **inefficient legacy system** from the 1940s!





Legacy Systems Pose Serious Risks to Healthcare IT Infrastructure Security.

THE ACCELERATION OF DIGITAL TRANSFORMATION!

COVID-19 has accelerated the need for innovation in healthcare technology unlike any event the industry has witnessed in modern history.



WELCOME TO MT SAN RAFAEL!



Mt San Rafael Hospital Before Pictures:

- 59% uptime
- Servers in house keeping closet's
- Switches in house keeping closet's
- Legacy hardware and software
- Legacy firewall
- Home grade wireless access points
- Tape solution backups
- No disaster recovery
- No data center
- No standardization
- No centralization
- No redundant power management
- No network redundancy
- No cable management
- No cybersecurity focus



TRANSFORMATION!



Mt San Rafael Hospital After Pictures: "First Data Center"

- 99% uptime
- 99% Server Virtualization
- 90% Desktop Virtualization
- NetApp All Flash FAS Storage Solution
- New Generation Firewall
- Enterprise wireless system
- Redundant power management
- Full automated backup systems onsite & offsite
- Cable management
- Standardization
- Centralization
- Redundant Networks



"Adding virtualization efforts that reduced cost 56 percent & improved uptime from 59 percent to 99 percent which increased business productivity, operating efficiencies, & enhanced services while reducing operating expenses." —Michael Archuleta

HIMSS Analytics
EMRAM

STAGE 6
HealthCare's
most wired
WINNER 2015

HealthCare's
most wired
WINNER 2016

HealthCare's
most wired
WINNER 2017



HIMSS Analytics
 EMRAM
 STAGE 6
 most wired
 CHIME
 most wired
 CHIME
 most wired
 CHIME
 most wired
 CHIME
 Digital Health
 most wired
 Survey
 Active 2020
 CHIME
 Digital Health
 most wired
 Survey
 Anticipatory 2020

TRANSFORMATION STARTS WITH COLLABORATION!

Colorado hospital Becomes One of the First Ready to Meet MU Stage 3 Objectives

Published on December 26, 2017 [Edit article](#) | [View stats](#)



Michael Archuleta

Chief Information Officer | Board Advisor | Strategist | Tech & Healthcare
Leadership | Innovator | Speaker | Influencer

14 articles

*Mt. San Rafael is expected to be one of the first in the country to attest for Stage 3 when attestations begin**



Mt San Rafael Hospital Named 2016 Most Wired

Michael Archuleta on LinkedIn
July 7, 2016



MEDHOST Announces Successful Go-Live of Mobile Medication Administration (MMA) App

Michael Archuleta on LinkedIn
March 20, 2017



Mt San Rafael Hospital Launches New Secure Sign-In System to Enhance Patient Experience

Michael Archuleta on LinkedIn



Mt San Rafael Hospital Named Most Wired Three Years in a Row!!!

Michael Archuleta on LinkedIn
July 11, 2017



HIMSS Analytics Honors Mt. San Rafael Hospital with Stage 6 Recognition

Michael Archuleta on LinkedIn
December 26, 2017



Mt San Rafael Hospital Earns 2019 CHIME HealthCare's Most Wired Recognition

Michael Archuleta on LinkedIn
September 19, 2019



Mt San Rafael Hospital Earns 2020 Most Wired Recognition

ANN ARBOR, MI, October 27, 2020 – The College of Healthcare Information Management Executives (CHIME) is pleased to announce that Mt. San Rafael Hospital has earned 2020 CHIME Digital Health Most Wired recognition as a certified level 9. The CHIME Digital Health Most Wired program conducts an annual survey to assess how effectively healthcare organizations apply core and advanced technologies into their clinical and business programs to improve health and care in their communities.

"Digital technology has been a driver of innovation in healthcare for many years now, but never to the degree that we saw in 2020 with the pandemic," said CHIME President and CEO Russell P. Branzell. "The Digital Health Most Wired program underscores why healthcare organizations keep pushing themselves to be digital leaders and shows what amazing feats they can achieve. This certification recognizes their exemplary performance in 2020."

Michael Archuleta, Chief Information Officer, leader of the information systems team, said "Receiving the Most Wired recognition for the sixth year in a row is truly an honor. Being part of such an elite group of hospitals and health systems who are distinguished with this recognition for their innovation and excellence in Healthcare IT is truly a remarkable experience. Receiving CHIME's Most Wired recognition isn't really about the award itself, instead, it's a unifying goal for our team that everyone can rally around and work towards, which is a powerful thing for a health IT organization in Rural America. I always tell my team to never think small just because we are a smaller hospital, but to always think BIG because we are bringing the best care, technology, and patient outcomes to improve patient care in our community."

A total of 30,091 organizations were represented in the 2020 Digital Health Most Wired program, which this year included four separate surveys: domestic, ambulatory, long-term care and international. The surveys

MEDHOST
**A History of
Healthcare IT
Partnership**

A MEDHOST Case Study
www.medhost.com

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THE PEOPLE PROTECTING
PATIENT SAFETY

Hosted by: Ed Gaudet

When the Flintstones met the Jetsons:
Tech-Driven Healthcare Transformation



Michael Archuleta

Chief Information Officer at Mt. San Rafael
Hospital and Clinics

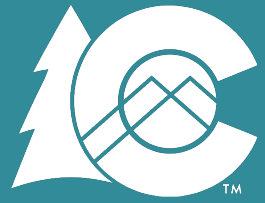


COVID-19 has fully displayed the value of HIT innovation and digital transformation, and the reality is that hospitals and clinics are digital companies that deliver healthcare services. We are living in the digital age of healthcare and we must continue to incorporate HIT as a CORE component to the organizations strategy.

We have to realize that this isn't a technology makeover but a business revolution to continue to transform healthcare!

HIT has always acted as an "Order Taker vs a **Value Maker**". HIT can no longer be considered a **Cost Center** but a **STRATEGIC REVENUE CONTRIBUTOR!**

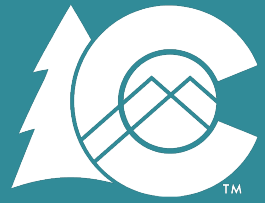
If we can take the experience gained from this unique challenge, we can evolve our industry and continue to invest in digital transformation.



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Public Comment Period



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CLOSING REMARKS