



Health Information Exchange Strategic and Operational Plan Profile

Overview

The Colorado Regional Health Information Organization (CORHIO), a public-private partnership, has been designated to improve health care quality through cost effective and secure implementation of health information exchange (HIE). The CORHIO strategy is to build upon the local and regional HIE initiatives and leverage the expertise and support of a large number of Colorado healthcare resources from the public and private sector. CORHIO is also the Regional Extension Center (REC) and partners with the CO Rural Health Center to assist critical access hospitals.

Quality Health Network (QHN), is a fully functional health information organization (HIO) and quality improvement collaborative serving over 300 providers and 2185 licensed online users. CORHIO and QHN will interconnect as QHN continues expanding its operations in the Western Slope region of Colorado and CORHIO focuses on the remainder of the state.

Model and Services

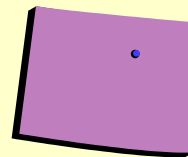
CORHIO approach is to convene communities and identify the common HIE goals and technology needs in each community. The community-based rollout approach ensures that each community is able to build upon existing HIE efforts that are being developed locally. CORHIO has initiated the geographic rollout process in six communities across Colorado;

CORHIO's technical architecture, supported by Medicity, is a platform that provides connectivity to participant communities via standards aligned with the Nationwide Health Information Network (NwHIN) gateway. The platform provides a master patient identifier (MPI) with demographic data, as well as provider and services directories, record locator service (RLS, state reporting, and privacy and security management capabilities. All participating entities maintain clinical data on edge servers, allowing them to control and establish security policies for all contributed data.

CORHIO also facilitates a peer-to-peer exchange through its grid/agent architecture, consisting of web-enabled programs with configurable routing preferences and strong encryption that can be installed by providers using a self-service downloaded installer. The architecture facilitates all of the Direct use cases and can function as a secure messaging platform for CORHIO. Additionally, CORHIO will act as a HISP with authority to issue certificates for secure messaging (targeted third quarter of 2011). In addition to its various provider participation agreements, CORHIO is also actively pursuing participant agreements with three of the largest labs utilized in Colorado to further enable electronic delivery of lab results.

State:

Colorado



HIT Coordinator: Lauren Plunkett

State Designated Entity:

Colorado Regional Health Information Organization (CORHIO)

Award Amount: \$ 9,175,777

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Other Related ONC funding in Colorado:

Colorado Beacon Community, Grand Junction, CO \$11,878,279

CORHIO Regional Extension Center \$12, 879,775



Highlights

- **Current HIE Functionality:**
 - Orders and Results Delivery: CORHIO is currently enabling providers to submit orders electronically and to electronically receive results and reports: laboratory, pathology, radiology, consults, and transcribed reports
 - Referrals and CCD exchange
 - Secure Messaging and eMail
- **Supporting Data Analytics** and providing for **Patient Tools** are on CORHIO's product and services roadmap.
- **Immunization Registry:** The Colorado Department of Public Health and Environment (CDPHE) acquired a new immunization registry system in August of 2010 with an interface engine that supports real-time messaging (under development). While the ultimate goal is bidirectional interoperability with EHRs, CORHIO is supporting the state by directing a pilot of immunization registry submission with a statewide hospital system.
- **Communicable Disease Reporting:** Labs provide daily data exports that are manually reviewed and entered by CDPHE staff. CORHIO has begun early implementation and testing to enable providers and labs to flag communicable diseases in their incoming HIE lab feeds so they can be routed to CDPHE, thus eliminating duplicative, less efficient processes.
- **Newborn Screening Orders and Results:** CORHIO and CDPHE have identified the requirements to process Newborn Screening Orders and Results through the HIE and are currently working on the first exchange between CDPHE and a hospital. The learnings from this exchange will be used to roll out Newborn Screening exchange statewide.
- **Consortium:** CORHIO has identified an opportunity to act as the lead to setup a consortium to address the cost concerns of mapping vocabulary with several terminology vendors. The consortium hopes to obtain volume-based discounts to allow participating states access to numerous lab clientele, provide user integration and support, and gain leverage from pricing and standardization.
- **LTPAC Challenge Grant:** CORHIO was awarded a Long-Term and Post-Acute Care Transitions Challenge Grant in January 2011 and is working in four targeted early adopter communities toward integrating HIE to improve care transitions: San Luis Valley, Boulder, Colorado Springs, and Pueblo.
- **Workforce Development**
 - **Workforce Development Grant:** The University of Colorado School of Nursing is collaborating with CORHIO to incorporate health IT vocabulary and concept mapping into the curriculum supported by the grant.
 - **Region A Community College Consortium:** Including the Pueblo Community College in Southern Colorado, each of the eight member colleges have committed to producing 300 graduates in health informatics certificate programs and to assist those individuals in securing and retaining employment. CORHIO engages in a collaborative process with Pueblo Community College for this program.
 - CORHIO is currently working with the University of Colorado, Denver, to identify students in the interdisciplinary program to assist CORHIO in data normalization and mapping activities as part of their course project activities.



Meaningful Use

	Landscape	Strategy
<u>E-Prescribing</u>	<ul style="list-style-type: none">• Only a small percentage of providers are currently submitting electronic prescription orders and refill requests, and this number is a subset of the Colorado-based providers utilizing EHRs.• Approximately 10% of pharmacies in the State are not connected for e-Prescribing. Hospital-based pharmacies and those included in integrated systems account for part of the estimated 10%. Independent pharmacies in rural areas are the least likely to be active in e-prescribing for two reasons: a) tight operational margins make it difficult to afford transaction fees e-prescribing services currently charge, and b) their referring prescribers are not demanding electronic transactions in the local market.	<ul style="list-style-type: none">• Because the primary barrier to implementation and utilization of e-prescribing in rural and independent pharmacies is the additional transactional cost of doing so, CORHIO, through its REC services, discuss and encourage HIE and e-prescribing with targeted physicians. CORHIO will also monitor and assist pharmacies that are not able to support e-prescribing, and through coordinated outreach efforts with the state association of independent pharmacists, communicate market drivers for increasing pharmacy participation.• Meaningful use will increase demand for community pharmacies to support their provider audience. CORHIO will encourage providers to reduce the transactional burden on the local community pharmacies by sending prescriptions to them. This dynamic will help create a business case for more pharmacies to connect electronically.



Structured Lab Results

- Only a small percentage of providers are currently receiving structured lab results. Aside from the three dominant chain labs in Colorado (PAML, LabCorp and Quest), 12% of the clinical labs (independent/hospital labs) in the state are able to report structured results electronically. According to the Colorado CLIA data, there are 60 independent labs and 138 hospital labs in the state.
- CORHIO is actively pursuing participant agreements with the three largest labs in the state; Quest has already agreed in principle and the fee structure is being determined. Quest is already connected to QHN which is assisting in the negotiations. In addition, a statewide 12 hospital system with a shared lab and a regional children's referral hospital providing pediatric care across the region are actively being on-boarded as lab data sources.
- CORHIO will identify and prioritize other independent labs through the CO-REC and HIE Provider Assessment Process. CORHIO will prioritize working with provider-identified labs for interoperability based on market needs. CORHIO will assist these labs in selecting the best approach: Direct, Point-to-Point interfaces, or HIE integration. CORHIO will ensure resources are available regardless of the exchange method selected.
- CORHIO also plans to maintain cross-walk tables that map the relationship between standards accepted coding systems. CORHIO plans to provide a web interface to enable labs to upload the most recent lab compendiums to be available for download by EHR vendors and CORHIO participants to implement and maintain EHR lab interfaces. Laboratories are freed from the burden of vocabulary maintenance since updates will be managed as a service by the HIE.
- In addition, to address cost concerns with mapping lab vocabulary, CORHIO is exploring a group pricing strategy with 6 other western states. With CORHIO leadership, the consortium has approached several terminology mapping vendors and hopes to obtain volume-based discounts.

Patient Care Summary

- Only a small percentage of providers are currently exchanging patient care summaries.
 - For providers in the communities prioritized for 2011, CORHIO will be offering the ability to exchange patient care summaries in the form of CCDs.
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HIE Inventory

Standards		Quality Improvement	
Nationwide Health Information Network Exchange Specifications	X	Care Coordination	X
Nationwide Health Information Network CONNECT	X	Quality Reporting	X
Nationwide Health Information Network DIRECT	X	Behavioral Health Information Exchange	X
Plans to exchange with federal agencies or other states via Nationwide Health Information specifications	X		
Public Health		Lab Strategy	
Electronic lab reporting of notifiable conditions	X	Translation services	X
Syndromic surveillance		EHR interface	X
Immunization data to an immunization registry	X	Policy strategy	X
Patient Engagement		Order Compendium	X
Patient Access/PHR		Bi-Directional	X
Blue Button		Alignment with CLIA	X
Patient Outreach	X	E-Prescribing	
Privacy and Security		Medication History	X
Privacy and Security Framework based on FIPS	X	Incentive or grants to independents	
Individual choice (Opt In/Opt Out/hybrid)	X	Plan for controlled substance	
Authentication Services	X	Set goal for 100% participation	X
Audit Log	X	Controlled substance strategy	
Administrative Simplification		Care Summaries	
Electronic eligibility verification		Translation services	
Electronic claims transactions		CCD/CCR Repository	X
Vendor		Directories	
Planning	X	Provider Directory	X
Core Services	X	Master Patient Index	X
		Record Locator Services	X
		Health Plan Directory	
		Directory of licensed clinical laboratories	X

Information for this profile was obtained from the approved Operational and Strategic Plan submitted to the National Coordinator for Health Information Technology as a condition of the Health Information Exchange Cooperative Agreement. The complete plan can be downloaded at: <http://statehieresources.org/>

