

Summary of CHORDS Partner Feedback 2024

The Colorado Health Observation Regional Data Service (CHORDS) is a unique regional network of health care, public health, and behavioral health partners that uses electronic health record (EHR) data to identify health trends and support public health evaluation and monitoring efforts. CHORDS stopped responding to data requests in 2023 due to limited capacity and resources.

At the direction of the CHORDS Executive Committee, the Colorado Health Institute (CHI), which convened the network and provided governance support, interviewed several CHORDS partner organizations to capture the following learnings that may help inform future work.

Strengths	Associated Challenges
<p>CHORDS benefitted from a close-knit group of partners who built relationships and developed trust over many years. Collaboration and good governance practices were not in short supply.</p>	<p>Staff turnover in 2021 and 2022 among the group of champions that built CHORDS limited the capacity and institutional knowledge from both clinical and IT staff that partners needed to fully participate in the network.</p> <p>Working with technical experts across organizations is dependent on their time, capacity, and understanding. This was evident in the relationship between data partners and the Data Coordinating Center at the University of Colorado Anschutz Medical Campus. For the Clinical and Community Data Initiative (CODI) project specifically, working with an external vendor to write query code was challenging as they did not intimately understand the CHORDS data model.</p>
<p>Most projects did not require much effort from partners to participate in, thanks to strong, centralized coordination from the CU Anschutz, Denver Public Health, and CHI. Some partners approached projects</p>	<p>CHORDS ended up in “technical debt” — the funding for projects did not cover the resource-intensive maintenance of partners’ virtual data warehouses (VDWs). CHORDS VDWs were often separate tools,</p>

<p>and queries differently, and projects with a central lead reduced that variability.</p>	<p>or separate views onto partner EHR systems. Partners were challenged when including these VDWs in implementing changes and updates across all their systems and tools. And partner-level quality assurance activities did not always involve data that went into CHORDS-related queries. Further, the maintenance needed on CHORDS VDWs varied over time and across partners and did not always align with project funding timelines.</p>
<p>Partners enjoyed the federated model and having control over when and how their data are used. This was especially important for partners with data regulated by 42 CFR Part 2.</p>	<p>Signing data sharing agreements for each new project was burdensome. The CODI project successfully improved on this challenge by giving signing authority to one partner to act on behalf of others.</p>
<p>A regional data set can be very powerful for research, public health monitoring, and population health management activities, especially when de-identified data are available at the record/individual level. In the early years of CHORDS, data indicators were more sophisticated than what was available via EHRs.</p>	<p>CHORDS ultimately suffered from a lack of use cases and the ability to spread the word about the opportunities that CHORDS data could provide.</p>

Ideas for the Future

- A future iteration of CHORDS would require a conversation among partners and potential users about what problems the network is looking to solve. It would be important to help orient potential users to what data is available that they haven't had access to before.
- CHORDS partners suggested that any future iteration also leverage existing networks and models. A few named: PCORNET, OMOP, Health Care Research Network, COSMOS, and TriNetX. Another example is the shared data vaults between community mental health centers and Federally Qualified Health Centers through the support of the Colorado Community Managed Care Network. Representatives from each partner would need to review the pros and cons of other models and the potential conversion. Any new model would require significant upfront resources to translate models and potentially necessitate a central data coordinating center.

- Partners are open to a future infrastructure on a cloud-based platform. Some partners' data is already fully cloud-based, while some use the cloud for specific projects and operations. Beyond the significant effort to move data into a new infrastructure, resources would have to be committed to supporting partners in understanding data sharing agreements for any new platforms. There may be opportunities to braid funding to leverage resources from existing initiatives using these platforms.
- Partners are interested in exploring social health information exchange but not all CHORDS partners have been engaged in the regional efforts to-date. Some partners have been working with other organizations on screening for social determinants of health and accessing data on areas like housing and corrections. From a regulatory perspective, it will be important to understand how HIPAA compliance might affect sharing health care data with non-clinical organizations.

All partners interviewed for this summary were interested in continuing to work together if the opportunity arises. This is testament to the good work and partnership that the CHORDS network built over 12+ years of collaboration.

CHORDS resources, including governance documents and research publications, are archived on the Colorado Health Institute's [CHORDS website](#). Inquiries can be directed to Nina Bastian, BastianN@coloradohealthinstitute.org.

Contributing Partners

Children's Hospital Colorado
Colorado Community Managed Care Network
Contexture
Denver Health and Hospital Authority
Girls on the Run of the Rockies
Hunger Free Colorado
Jefferson Center for Mental Health
Kaiser Permanente Colorado
University of Colorado Anschutz Medical Campus
WellPower