

CCMCN BUILDS A "HONEYCOMB COMMUNITY DATA NETWORK" ON SNOWFLAKE TO SUPPORT POPULATION ANALYSIS, CARE COORDINATION, AND COMMUNITY DATA SHARING



HEALTHCARE

CCMCN

COMPANY Colorado Community Managed Care Network
LOCATION Denver, Colorado

SNOWFLAKE WORKLOADS USED



Colorado Community Managed Care Network (CCMCN) leverages innovative technology to enable better outcomes across Colorado communities.

As a federal-and state-funded nonprofit health information organization that is governed by Colorado’s Federally Qualified Health Centers, CCMCN’s passion is to help create a positive impact on reducing health equity issues by applying innovative technology, data, and payment systems to community collaborations. CCMCN’s value proposition is to identify the best-in-class technology systems available, integrate them into a technology stack, and provide them as a holistic solution to community organizations across Colorado so that they can target specific interventions that address reducing disparities and improving equity in every community. CCMCN integrates demographic, clinical, health information exchange, claims, social, criminal justice, and public health data to provide community-level analytics and proactive community care coordination support. CCMCN’s “Honeycomb Community Data Network” that is built on Snowflake allows organizations to maintain control of their sensitive data while enabling them to

turn on and off data sharing with multiple parties as needed. CCMCN also calculates financial incentives and provides payment to healthcare and community organizations to support their ability to participate in the Honeycomb Community Data Network. These community collaborations systematically address local issues, such as reducing recidivism, improving maternal and child outcomes, and improving a person’s experience when navigating the complexity of community services. Safety net organizations across Colorado trust CCMCN’s Honeycomb Community Data Network to securely access, manage, and share information about patient populations.

STORY HIGHLIGHTS:

Snowflake Secure Data Sharing

CCMCN and its Honeycomb Community Data Network members rely on governed, secure data sharing to accelerate collaboration and care coordination.

Optimized storage and elastic compute

Snowflake’s near-infinite scaling of storage and compute enables CCMCN to support more organizations and improvement projects.

Fully managed infrastructure

With Snowflake, CCMCN’s technical staff have more time to focus on expanding the Honeycomb Community Data Network.

3 million

Number of Coloradans’ data collected through the Honeycomb Community Data Network

150

Number of organizations benefiting from the Honeycomb Community Data Network

CHALLENGE:

Securely sharing healthcare data to support care coordination

A growing number of communities in the United States are turning toward improving coordinated care to control healthcare costs, reduce complexity, and improve patient experiences. Data is essential for coordinating care across multiple dimensions of health. However, sharing data between healthcare and nonhealthcare organizations presents numerous challenges.

Responding to Colorado's request for a Social Health Information Exchange (SHIE), CCMCN began developing the Honeycomb Community Data Network. "We wanted to build infrastructure that understands people's needs, helps them get referred to the appropriate resources, and enables whole-person care coordination across every segment of a community," said Jason Greer, CEO at CCMCN.

Architecting an integrated, scalable technology network to connect Colorado's service providers was not feasible with CCMCN's previous data environment. Ingesting, normalizing, and sharing data was time-consuming and operationally burdensome. "We needed to securely share information with many different groups while providing organizations the ability to maintain control over their data," said Sandra Arreola, Data Engineering Director at CCMCN.

SOLUTION:

A platform for building a scalable community data network

Seeking a modern data environment to serve as the core of its Community Data Network, CCMCN turned to Snowflake's Data Cloud.

CCMCN created a fully meshed network of private databases in Snowflake to provide dedicated data spaces called "Private Data Vaults" to individual organizations. Creating this data network in Snowflake provided a secure, convenient solution for managing each organization's data. Snowflake Secure Data Sharing enables organizations to govern their own data use and secures data exchange with their community partners to help accelerate care coordination and community interventions. According to Greer, "Organizations can load their data once into Snowflake, efficiently use it in many different ways, and control data sharing—without depending on us."

Snowflake's optimized storage and elastic compute aligned with CCMCN's vision of supporting significantly more organizations in their local collaborations in every community across the state. Snowflake's fully managed infrastructure freed up resources for expanding CCMCN's Honeycomb network of Private Data Vaults, complex data interfaces, integrated applications, and interoperability tools.

Snowflake's extensive network of connectors, drivers, programming languages, and utilities helped CCMCN optimize its data pipeline. "Moving to Snowflake, we were able to normalize everything at the same time and query a single data set. We know exactly how data is organized and where it's structured," Arreola said.

“**CCMCN's Honeycomb Data Network built on Snowflake creates a significant opportunity to help organizations participate in community programs, share data while staying in control, access external data, and get access to actionable information much faster than historically possible. Snowflake allowed us to build the Honeycomb Community Data Network that covers all of these scenarios.**”

—JASON GREER,
CEO, CCMCN

RESULTS:

Leveraging data to unify care coordination across Colorado

A rapidly growing number of organizations across the state of Colorado depend on CCMCN's Honeycomb Community Data Network, powered by Snowflake, to unify data, programs, and strategies that support improvements in health equity and system efficiency. Approximately 150 organizations with over 300 locations statewide benefit from the Honeycomb Community Data Network, resulting in a growing ecosystem that contains data and insights on about 3 million people—approximately 40% of Colorado's population. According to Greer, "Snowflake's technology enables Colorado's leadership to have confidence that CCMCN has developed a rapidly scalable, effective, and smart solution for Colorado. It's a system that works, and we feel comfortable putting our reputation behind it."

“**Snowflake keeps us focused on supporting communities instead of being completely bogged down by infrastructure. That's a big deal.**”

—JASON GREER,
CEO, CCMCN

Advancing data-driven collaboration and care

Centralizing data in Private Data Vaults in Snowflake enables community organizations to collaborate more efficiently and effectively. For example, CCMCN worked with five health organizations to produce community analytics for their shared Medicaid patient populations. Enriching shared populations with social, mental health, and physical health indicators makes it easier for organizations to understand patient journeys, coordinate care, and identify areas for interventions. Analyzing cost differences between shared and overall populations helps quantify the financial impact of coordinated care. Connecting the Honeycomb Community Data Network to a growing number of applications, tools, and rules engines helps organizations proactively improve prenatal care, child wellness, recidivism, health equity, and cost. "You start to uncover information about a community population that you couldn't know before," Greer said.

Affordably scaling to keep pace with growth

Building a scalable Community Data Network on the Snowflake Data Cloud allows CCMCN to support more communities, organizations, and community improvements. According to Greer, “We can go from good intentions to better community outcomes faster.”

With Snowflake, CCMCN’s data engineers spend less time performing repetitive tasks and waiting for queries to process. CCMCN’s data costs have remained relatively consistent despite significant growth in the Honeycomb Community Data Network. “We’ve found Snowflake to be better, cheaper, and faster across the board, which is pretty amazing,” Greer said.

“ For the first time, community organizations can put data in a central location and control when and how they want to allow third parties to access their data.”

—JASON GREER,
CEO, CCMCN

FUTURE:

Enabling data-driven care coordination in Colorado and beyond

Supporting more communities and organizations in Colorado is CCMCN’s top priority, but a nationwide rollout of a data infrastructure like the Honeycomb Community Data Network is the next chapter. CCMCN is one of 49 Health Center Controlled Networks (HCCNs) across the country. HCCNs are Health Resources and Services Administration (HRSA) funded networks that support the Federally Qualified Health Centers in every state. This network of health centers manages the healthcare for one out of 11 people nationally and one out of three people living in poverty. The HCCNs are developing a national data strategy to connect all of the HCCNs together to focus on improving outcomes on a national scale. This work is being done in coordination with HRSA and the National Association of Community Health Centers (NACHC). CCMCN is interested in working with any organization that shares their passion for equity and reducing disparities across Colorado and nationally. According to Greer, “The goal is to get to enterprise scale as quickly as we can. Without Snowflake, we just couldn’t do that.”

ABOUT SNOWFLAKE

Snowflake enables every organization to mobilize their data with Snowflake’s Data Cloud. Customers use the Data Cloud to unite siloed data, discover and securely share data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single data experience that spans multiple clouds and geographies. Thousands of customers across many industries, including 573 of the 2022 Forbes Global 2000 (G2K) as of January 31, 2023, use Snowflake Data Cloud to power their businesses.

Learn more at snowflake.com