CCMCN
Social Health Information Exchange
Community Care Team Model

Project Summary

September 2020

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Introduction

Throughout Colorado, many low-income residents have trouble navigating community services to support their health and social needs. The quality of their experience is inconsistent, and the high cost of these services can be overwhelming for both the person and the system. It is necessary to identify and address these disparities through more coordinated community strategies.

U.S. health care costs continue to rise despite our understanding that most activities which support health happen outside of the clinic and hospital walls. Numerous researchers have estimated the relative impact of health care, health behaviors, social factors, and environmental factors on health outcomes. While these researchers have used different methodologies to estimate the relative weight of these factors, health care (clinical care) is estimated to account for anywhere from 10 to 27 percent of health outcomes, while health behaviors and socio-economic factors are estimated to account for 60 to 85 percent of health outcomes.

CCMCN's S-HIE Project Requirements

The purpose of the project is to develop a statewide Social Health Information Exchange (S-HIE) model to support whole person care coordination within the Stakeholder Engagement pillar of the OeHI Health Information Technology (HIT) Roadmap. The overall vision for the S-HIE is to build a person-centric infrastructure to facilitate and allow multiple entities to screen, assess, and refer clients to resources that address social and economic needs, ensure clients access resources, and provide case management (when applicable), with the goal of improving the health and wellbeing of Coloradans.

CCMCN's Approach to Developing the S-HIE Model

CCMCN performed interviews with organizations in Boulder County, Northeast Colorado and the Federally Qualified Health Center (FQHC) community across Colorado to learn about their local collaborations, workflow and tools for completing social determinants of health (SDoH) assessments and referrals. This effort was built on the findings from the environmental scans performed by the Office of eHealth Innovation Care Coordination Workgroup over the previous years. In parallel, CCMCN did an extensive evaluation of innovative technology solutions from national vendors and local technology partners to identify the most appropriate and interoperable set of technologies for the S-HIE model. Once the interviews and technical partner evaluations were completed, CCMCN created an S-HIE model that is designed to support communities in their ability to provide whole person care coordination that can help create and sustain community improvements with an emphasis on improving SDoH assessments and closed loop referrals.

Findings and Lessons Learned from Interviews and Evaluations

The interviews and technology evaluations that CCMCN conducted illuminated several key findings that need to be considered if the S-HIE model is to be successful. The findings are summarized here to articulate the needs, challenges, and best practices which CCMCN used to design the technology architecture and the approach to community involvement.

Barriers to screening for SDoH at the point of care

All organizations, especially those that serve low-income Coloradans, want to ensure that their patients are regularly screened for SDoH needs. In an effort to provide whole-person care, health care organizations are adopting screening methods to help them understand the patient's social barriers to care. However, it is difficult for some practices to fit this assessment into their workflow. Organizations use different methods for completing social assessments, including requiring staff to ask sensitive questions during patient appointments or providing handheld devices for patients to fill out while in the waiting room. Still, SDoH assessments are hard to complete for every patient on a frequent basis. Organizations often limit the number of assessment questions they ask and sometimes

screen for SDoH with only a smaller subset of their population, which can lead to missed opportunities. Other organizations are discontinuing their SDoH assessments because of the emotional burden on their staff and the amount of time that the assessments take. Some organizations complete the assessments, but they don't have the time to create the referrals.

Lack of resources to share data

Sharing data comes at a cost for organizations. There is a financial expense associated with regularly extracting and sending data to any third party. Organizations view their data as an asset, and they know that it could be an asset to other organizations as well. There is usually a concern that external entities will financially benefit from their data without sharing the financial benefit with them. There is also the concern about the liability that comes with sharing sensitive, private information about the people that they serve, especially when the regulations that govern data-sharing rules are not the same across the sending and receiving organizations.

The pitfalls of online referral applications

Online referral applications can be an asset to a community if most organizations are using the same referral application vendor. The most common referral applications create a closed referral network that allows for referrals to occur only between organizations that have adopted the same application.

Shortcomings of traditional care coordination platforms

Most care coordination platforms offer very limited data integration and automation. Because of this, these systems require a significant amount of manual data entry, and at times, duplicate data entry from an organization's other operational systems. Additionally, different insurers/payers and organizations use different systems and they require providers to use multiple systems for each payer population. If a person is receiving services from multiple organizations, their data may be stored in different platforms that cannot exchange information. Care team members are interested in knowing who else is working with the patient and they would like to know the activities, assessments and referrals that have occurred.

Community-based organizations are at capacity

Community-based organizations have expressed concern about their capacity to serve their existing clients, let alone an influx of referrals for new clients. Even if funding is provided to increase an organization's service capacity, it takes time for their staff, workflows, and internal systems to accommodate growth. Sustainable financial resources are essential for increasing capacity of community organizations.

Community collaboration projects require vision, leadership, governance and funding

Many communities across Colorado have organizations that are well positioned to initiate community collaboration projects, sometimes starting with only a few organizations. CCMCN refers to these organizations as the community's "Anchor Organizations". The Anchor Organizations typically consist of the local health alliances, Federally Qualified Health Centers, Mental Health Centers, local public health and local housing and human services agencies. Each of these organizations has a relationship with most of the community residents and it is commonly understood that coordinating care between them and other community organizations would create efficiencies for their organizations and an improved experience for their shared populations of patients/clients. Not all community collaboration projects are attempting to include every organization in the community. Most community collaboration projects make up a small group of organizations that support the project because it supports their organization's business objectives. Regardless of the structure of the community collaboration, they need to establish a governance process with clearly defined shared goals and a funding mechanism as the way to focus their conversations and make progress on the intended outcomes of their work together.

Communities want to address disparities, health equity, and systemic racism

Although the coverage of systemic racism in the media has recently increased, those who work in health care and social services have long observed the systematic differences in health outcomes based on race and ethnicity. Community collaborations are interested in starting with managing social, physical and mental health needs of their community while the long-term goal is to consistently sustain improvements in disparities, health equity and systemic racism.

CCMCN's SHIE Solution: The Community Care Team Model

After extensive interviews, environmental scans, technology evaluations and requirements gathering, CCMCN has responded to the complex needs in each community by developing the Community Care Team Model, an interoperable community strategy that builds on and integrates existing systems while building capacity in communities to support their ability to work on shared goals. The Community Care Team Model **is designed to support whole person care** with the goal of creating a unified and efficient care team out of disparate organizations, families and patients in each community. To be effective, CCMCN understands that the system needs to be modular enough to provide information into each organization's existing workflow without requiring them to convert their existing systems to participate. Because of this reality, CCMCN has designed a suite of tools that are needed to operate a Community Care Team and the tools can be applied to each organization in the way that works best for their business.

The Community Care Team Model Guiding Principles

1. Creating community improvements requires an intentional, systematic and a coordinated community governance approach
2. The model deconstructs problems into measurable and actionable "Improvement Projects"
3. The model proceeds with a sense of urgency with the organizations and tools that are ready to make improvements as quickly as possible
4. The model has a sustainable financial model that provides resources to the participating organizations and technology partners
5. The model will mature to support communities with innovations that help reduce disparities, improve health equity, address systemic racism and lift vulnerable people and families out of poverty

The Community Care Team Model runs on a flexible platform that can be easily integrated with a broad array of health systems, referral networks, and government systems. This platform also provides a strong security model protecting person privacy.

CCMCN's Community Care Team Model Core Services

The Community Care Team Model consists of the following 5 categories of core services:

1. Community Integration Team
2. Data Vault Network
3. Health Cloud Community Care Coordination Application
4. Performance Measurement and Incentive Payment Model
5. Population Analysis and Storytelling

Community Integration Team

Utilizing the Community Care Team Model, the Community Integration Team will engage with individual organizations and community collaborations in the way that works best for the organizations that are involved. The Community Care Team Model is designed to help community organizations quickly move beyond the logistics of how to coordinate their activities so that they can begin to demonstrate the improvements that brought them together in the first place.

The Community Integration Team can assess readiness, facilitate meetings, produce guidance documents and webinars, provide technical assistance about available technologies, provide guidance about governance, and engage focus groups. The team can also support communities with process change, data management, financial modeling, strategic planning and project management. Such support will be ongoing and iterative based on the needs of the collaboration.

Improvement Projects

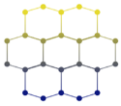
Improvement Projects are at the core of the Community Care Team Model. An Improvement Project is a measurable set of activities and outcomes that help solve the complex priority problems in a community. Establishing Improvement Projects will allow community collaborations to maintain clarity and focus about the problems that they are intending to solve and how they intend to solve them. Improvement Projects are intended to have a start and stop date so that organizations can measure their activity and their impact during the duration of the *first sprint* of the Improvement Project, make any needed adjustments and then launch the second sprint of the same Improvement Project. Communities can compare the effectiveness of each Improvement Project sprint to demonstrate that they are learning, adapting and improving their processes and increasing their impact over time.

Improvement Projects Library

As the Community Care Team Model is implemented to support various community Improvement Projects, CCMCN will develop a library of pre-designed Improvement Projects for communities to use and/or adapt to meet their specific needs. Creating a library of projects will enable communities to quickly adopt a template and begin the work of implementing their program to create the intended outcomes. Listing the active Improvement Projects online will also give new organizations the opportunity to become aware that the projects exist and they can request to participate in the next sprint.

CCMCN is currently working with various community collaborations on the following Improvement Projects that establish the foundation of the library:

1. Improving Community Assessments, Referrals and Access to Resource Lists
2. Improving Community Care Coordination
3. Improving Community Data Sharing
4. Improving SDoH Awareness and Response
5. Improving Person Experience with the System
6. Increasing Enrollment in Special Supplemental Nutrition Program for Women, Infants and Children (WIC) for pregnant women
7. Increasing education and testing for people that live or have lived near toxic waste sites
8. Reducing Costs and Healthcare Related Bankruptcy
9. Increasing Proactive Care (Closing Medicaid care gaps and same day COVID-19 follow-up)



Data Vault Network

The Data Vault Network is the data sharing system that supports the Community Care Team Model. It manages all incoming and outgoing data, privacy controls and has sophisticated tools that support automation. It is intended to allow organizations to stay in control of data ownership while giving them the ability to easily share data with other organizations on the Data Vault Network or with any external entity. Organizations participate in the Data Vault Network by using a Private Data Vault, which is a secure cloud-based database. Once they have access to their Private Data Vault, the Data Vault Network provides "Reference Data Vaults" that contain external data for organizations to subscribe to.

The Data Vault Network consists of the following components:

- Private Data Vaults for individual organizations
- Standard data models
- Data sharing between community organizations and with third parties
- Reference Data Vaults: access to external data sets
- Self-service data loads, data downloads and data sharing
- Utility as a data warehouse for community organizations
- Developer network of sharing best practices and innovations between community organizations

Health Cloud - Community Care Coordination Application

The Health Cloud Application was custom developed to fit the needs of Colorado's safety-net provider organizations that are interested in using a shared care coordination application across the community.

Care managers appreciate the simplicity of the Health Cloud Application because there is data integration and automation behind the scenes that creates an efficient workflow for the user. Health Cloud provides an integrated user experience for access to information about community members including Medicaid attribution, member demographics, clinical data from electronic health records along with a host of non-medical data such as social determinants of health, referrals and interventions. Within Health Cloud, Care Managers can access the clinical data view from the Data Vault Network along with direct management of the community member's care plan with the ability to complete assessments and create referrals to other community organizations. The Health Cloud application is modular, meaning that other applications can be integrated as needed to create an efficient workflow for care managers. For example, Tableau business intelligence reporting has been fully integrated, and the Aunt Bertha resource and referral application is also fully integrated into the system. CCMCN is currently working on integrating the Visible Network Labs Partner application for remote patient assessments and the next integrations will be with Quality Health Network's CRN application and the Unite Us resource and referral application.

The Health Cloud Community Care Team System consists of the following components:

- Customized Salesforce Health Cloud Community Care Coordination Application
- Integrated Resource and Referral Tools
- Online assessments with tasking automation based on results
- Mobile app for self-assessments and self-referral tools
- Complete Person Profile
- Care Team Member Registry
- Community Care Plans

Performance Measurement and Incentive Payment Model

Through the lens of the Improvement Project, the Community Care Team Model is designed to incentivize participating community organizations to work together to make improvements as quickly as possible. The culture of the model is to create a sense of urgency in the interest of population wellness while continuously improving organizational efficiency. Community organizations are already at capacity to provide services and the success of the Community Care Team Model depends on creating additional efficiency and capacity in these systems. While there is no requirement to use the tools within the Community Care Team Model, the tools will be available to community organizations to enhance their practice, reduce duplication and expand their capacity to demonstrate a return on investment. Beyond the availability of tools, funding to these organizations is vital to support and expand their services. Private, philanthropic, and crowdsourced funding will be pursued to support the Community Care Team Model. Without incentive payment funding for community partners, there will be a critical flaw in the system, as they may not have capacity or a business justification to participate over an extended period. The incentive payment methodology tracks each individual organization's activity, shows the volume of activities within each Improvement Project, broadcasts the progress toward the goal and calculates the payments when funding is available.

Population Analysis and Storytelling

The Community Care Team model provides ongoing analysis of population outcomes at the cohort level using a Population Analytics System. The Population Analytics System uses data feeds from multiple sources of data, such as claims, attribution, admit, discharge, and transfer (ADT), labs, vital statistics, clinical data, and SDoH data. The Population Analytics System also has the capability of building custom patient cohorts to analyze data across time, diagnoses, outcomes, costs, and risk groups; and, it can create an unlimited amount of static and dynamic cohorts based on the needs of the community to analyze the impact of the interventions. The Population Analytics System can also provide an actuarial analysis of cost savings and return on investment (ROI) within payer populations. As the populations are being monitored throughout the course of any Improvement Project, the Community Integration Team can help tell the story about the effectiveness of the community through presentations and written summaries.

The Population Analysis System consists of the following components:

- Population Analytics Software
- Business Intelligence Custom Reporting
- Impact Analysis
- Milliman Actuarial ROI Analysis

Project Next Steps

CCMCN focused on the Anchor Organizations in Boulder County, Northeast Colorado and the FQHCs statewide in this project. The next step with Northeast Colorado will be to implement each of the core components of the Community Care Team model to demonstrate the value of running the system comprehensively. In Boulder County and for the FQHCs, CCMCN will demonstrate the flexibility of the model by implementing the Data Vault Network to enhance existing tools. CCMCN will document the Improvement Project strategies learned from each of these three communities to spread improvements to other communities around Colorado. This community by community approach will lead to a statewide improvement strategy that will realize the S-HIE vision for sustainable whole-person care.

About CCMCN

Colorado Community Managed Care Network (CCMCN) is a membership organization governed by the Federally Qualified Health Centers in Colorado with over 200 clinic sites in every Colorado community (including school-based clinics, pharmacies, and mobile units). CCMCN was founded as a nonprofit organization in 1994 to respond proactively to the advent of mandatory Medicaid managed care and has evolved into a multi-faceted organization that serves its members and their community partners in areas where a network solution optimizes collaborative endeavors. Areas of focus include community care coordination, accountable care, health information technology and clinical quality improvement.

CCMCN currently serves as a state and federally funded health information organization serving the safety-net. This SHIE funded Community Care Team Model work builds on 20 years and $20+ million dollars of state and federal investments. Combining a social layer of information along with the existing volumes of available healthcare related data and the newly available data through OIT's JAI program, CCMCN can create a very unique set of clinical, community, social, public health, and criminal justice data points that can be viewed together to gain a greater understanding of the individual needs of people and better understand the pattern of population needs across each community.