Assessment of Community Information Exchange landscape in US

The circumstances of a person's life affect their health much more than the medical care they receive. But the systems that support people's health, social, and economic needs are often disconnected. Community Information Exchange (CIE) is care coordination infrastructure that creates and sustains relationships among a multidisciplinary network of partners using a diverse array of technologies. As a result, CIEs enable person-centered care, and promote health and social equity, by promoting streamlined access to non-clinical health-enhancing services. CIEs using a shared language, a resource database, and platform integration technologies, to enable exchange of information about resources as well as exchange of information about people, under terms set by community-driven governance.

Table 1. High-level overview of CIEs in other states

State	CIE Name	Steward	Notable Elements
California	North Coast Care Connect	NCHIIN	• Community members are part of the ACH Governance Committee • Humboldt County residents contributed to the CIE planning and design process (i.e., data ownership and consent)
	CIE San Diego	211 San Diego	• Secured 94% of their $14 million budget in fee-for-service contracts and business partnerships
Colorado	Social Health Information Exchange (S-HIE)	Colorado Health Institute / Colorado OeHI	• Generated mutual understanding and established common language among partners
Washington	Connect2 Community Network	Healthier Here	• Leveraging existing equity and engagement efforts, they have been able to inform Connect2 Community Network outreach, planning, and implementation
DC	DC Community Resource Information Exchange	CRISP	• Leveraging the HIE to develop cross-platform referral capabilities. • Community-led governance and design process to develop resource directory infrastructure and maintenance capacity.

California

North Coast Care Connect

North Coast Health Improvement and Information Network (NCHIIN) is a non-profit chartered in 2010 by the Humboldt Independent Practice Association, a large physician organization, that provides both Health Information Exchange, HIE and community health improvement initiatives in Humboldt County, California. With support from the California Accountable Community for Health Initiative (CACHI), which was established as a public-private partnership between state government and private sector funders, NCHIIN began work to form an Accountable Community for Health (ACH) in 2017 known as the Humboldt Community Health Trust (HCHT).

That work included establishing ACH Governance and partner workgroups composed of cross sector community leaders including residents with lived experience, community systems mapping to capture existing SUD and Behavioral Health resources, analysis to identify gaps and redundancies, developing and reviewing community data and collectively identifying indicators to track progress on the ACH efforts. The initiative also developed an ACH "Wellness Fund."

HCHT had early efforts focused on substance use disorder (SUD) and has established itself as a trusted, neutral integrating organization with the experience, resource, and dexterity to lead community initiatives. Recent achievements of the HCHT include the establishment of the Humboldt County Drug Medical Huddle, partnering with RxSafe Humboldt on a state Opioid Safety initiative, and the establishment of North Coast Care Connect (Humboldt County's CIE).

NCHIIN is the backbone organization for North Coast Care Connect, and the organization recently partnered with QS Systems to serve as the technology vendor for the CIE. According to NCHIIN's website, North Coast Care Connect is currently in the early stages of CIE implementation and is beginning to build its network. Their current partners include Area One Agency on Aging, Southern Humboldt Health Care District, School Based Wellness Center, Humboldt Independent Practice Association, Tri-County Independent Living, and Changing Tides Family Services.

211/San Diego CIE

211 San Diego is an informational hub that connects more than 500,000 community residents, families and individuals to more than 1,500 organizations providing valuable navigation support to community, health and human, and disaster services. Clients call in search of food assistance, health insurance coverage, financial assistance, food and shelter, mental health services, and other services that will address their immediate needs.

In 2017, 211 San Diego officially launched the region's first CIE, which uses the collective impact model, a shared language and an integrated technology platform to deliver enhanced community care planning for residents. The San Diego CIE has shifted the paradigm of care to one that enables partners to integrate data from multiple sources and make bi-directional referrals to create longitudinal client records that promote a proactive, holistic, person-centered system of care. The San Diego CIE shares data across multiple systems to better understand people within their environment, more effectively coordinate care, and expand local knowledge of how systems can influence key social determinants of health—health care, education, economic stability, housing and neighborhood environment, and social and community context.

Colorado

Colorado Health Institute (CHI)

CHI has been providing research, insight, and expertise to inform policy, promote cross-sector collaboration, and advance health for all Coloradans since 2002. CHI is a nonprofit, nonpartisan organization whose stakeholders include state and local agencies, health care organizations, community partners, philanthropic organizations, and Colorado legislators. Recognizing the systems that support people's overall health – including medical, social, and economic well-being – are usually disconnected, CHI and local partners identified an opportunity in a social health information exchange (S-HIE) ecosystem. S-HIE is built upon cross-sector partnerships and harnesses interoperable technology to connect disparate systems, such as HIEs and resource and referral platforms (i.e., Find Help, Unite Us).

Currently, the Metro Denver Partnership for Health (MDPH), a local, cross-sector collaborative, is one of many groups in Colorado working to raise up an interoperable S-HIE ecosystem that harnesses technological tools and community relationships to provide whole-person and whole-family care. However, while many care providers are implementing S-HIE systems (i.e., findhelp, Unite Us, and NowPow) to help address unmet social needs, these systems are not yet connected through an interoperable ecosystem. As a result, in the January 2021 S-HIE White Paper, CHI acknowledges now is the time to leverage many ongoing S-HIE efforts in an effective, coordinated manner, while working through the barriers (like implementation, technology, and governance challenges) inherent in this dynamic. Designing a coordinated S-HIE infrastructure that reflects the needs of users is critical. Additionally, effective, coordinated, and equitable decision-making lays the groundwork for a more effective S-HIE ecosystem, regardless of what technology users adopt. Sound governance bridges gaps between isolated efforts and brings together participating providers under a shared vision. S-HIE systems are not just technology or apps; they are a coordination of existing efforts to create a working ecosystem of a social health information exchange.

It is important to keep in mind that Colorado is unique in that it is one of a handful of states that uses local county control to administer many of the state's social services. This means that many businesses, government agencies, and organizations are piloting and implementing work independent of each other, which can result in duplication of effort. However, this same dynamic often leads to more innovation and diversified learnings. The challenge for Colorado is to leverage this innovative landscape, while simultaneously moving toward a more integrated and effective statewide approach.

Washington

Connect2 Community Network

HealthierHere, a non-profit organization based in Seattle, is working with local partners to eliminate health inequities and establish an integrated system of whole-person care in King County, Washington. Together with their cross-sector network partners, they have collaborated over the past three years to develop a shared vision and plan for the development and implementation of a local CIE in Seattle/King County. The COVID-19 pandemic underscored their community's need to implement a CIE, and as a result, the network spent 2020 planning the CIE vision and designing a governance structure, as well as an approach for technology architecture.

Connect2 Community Network, their unified CIE, has been collaboratively developed by health, social service, and American Indian/Alaska Native serving organizations in King County, WA. Community-owned and governed by a multi-sector Advisory Group, it is dedicated to reducing health disparities and improving outcomes. To enable in this early implementation phase, they have partnered with Unite Us to pilot with early adopters in their network. The network is building relationships and co-designing tools and policies to enable health, behavioral health, tribal, community and social service organizations to responsibly share information and coordinate services – so that no matter what door someone enters, they will receive the whole-person care and support they need to be healthy and thrive.

District of Columbia

DC Community Resource Information Exchange

The District of Columbia (DC) Department of Health Care Finance (DHCF) regulates the DC Health Information Exchange (DC HIE), which is a marketplace of registered and designated HIEs. Over the last five years the District has successfully leveraged HITECH and other funding streams to connect over 13,000 users to the DC HIE, provide technical assistance through partnerships, and develop and implement HIE infrastructure. Providers have articulated the need to incorporate social determinants of health (SDOH) to best serve their patients. Launched in 2019, the Community Resource Information Exchange (CoRIE) initiative's goal is to support person-centered care by connecting health and social services through existing DC HIE infrastructure.

The CoRIE initiative is a partnership of DHCF, CRISP DC, the DC Primary Care Association, and the DC Hospital Association. There are three major components of the CoRIE: 1) screening for social risks; 2) lookup through a centralized community resource inventory (CRI); and 3) enabling referrals to appropriate services.

A District-wide Community Resource Inventory (CRI)

CoRIE initiative funded a District-wide aggregation of resource data from a range of already-existing resource directory databases. DC CRI live prototype currently contains approximately 500 records and represents directories contributed by District organizations. As of early 2022, DC CRI can be accessed via web browser or through the DC HIE. District organizations can also retrieve/contribute content via application programming interface (API). The District is also convening stakeholders through the DC HIE Policy Board to develop standards related to the use, exchange, sustainability, and governance of CRI data through the DC HIE infrastructure.

Screening for social risks and referrals to appropriate services
CoRIE included tools for capturing screening information based on whether organizations: 1) export social need screening questions and answers; 2) enter screening data through CRISP's Direct Entry Screening Tool; or 3) assign and send Z codes that identify social needs.

Participating organizations that use social need assessments and structured questionnaires are now able to export that data to CRISP to ingest, convert to a FHIR resource, and display within the "Assessments" subtab of the "Social Needs Data" Tab in the CRISP DC Portal. Alternatively, for organizations that do not have an electronic screening tool, CRISP DC developed a prototype direct entry screening tool that can be accessed through its CRISP DC Portal.

Through the CoRIE initiative, CRISP DC and its partners at the DC Primary Care Association also began engaging FQHCs to test mapping ICD-10 diagnosis codes for SDOH (z-codes) to existing social need screeners. Participating FQHCs are now actively documenting social need screening responses and results using z-codes within their electronic health record systems' progress note which is then transmitted to the DC HIE.

A vendor agnostic approach to social needs screening and referrals

The CoRIE initiative takes a "vendor agnostic" approach to social needs screening and referrals. Depending on their workflows and technical capabilities, organizations have the option to send either assessment data (i.e. social needs questions and answers) or conditions data (i.e. diagnoses indicating health-related social conditions). CRISP enables organizations using a third-party social need referral platform (e.g. Find Help), which can agree for that platform to share referrals and responses with the DC HIE to display at the point of care.

For organizations without a vendor, CRISP developed a referral tool that is available through the DC Portal and designed to allow providers and select members of their staff to refer patients to CBOs and specific programs offered by those organizations, including services that address a patient's social needs or address underlying causes of poor health outcomes. Providers are able send social need referrals to community-based organizations, track follow-up to services, and receive disposition on referrals made. CBOs can also participate in the closed loop referral tool by receiving and responding to referrals from participating organizations.