



Right-Sizing Technology for Your Community Information Exchange

A Practical Guide to Connecting Social Service Data Systems

Introduction, Values, and a Handy Checklist

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Introduction

You've heard from the people across your community that navigating a complex web of health and social services leads to frustration, overly complicated forms, duplicating data, and a lot of missed connections to needed services.

You're helping lead an effort to address this challenge — and have a lead on funding that can help you stand something up.

You've pulled together a strong team of service providers, policy makers, systems leaders, and people seeking services to design and make decisions about how this system should operate on the ground.

You may even have settled on calling this a “[Community Information Exchange](#)” (or CIE), inspired by the work happening in San Diego ([ciesandiego.org](#)) and a growing network of communities across the country.

Your big lift now is to find the right technology to manage all the data and data sharing needed to make this work.

... so now what?

This guide is designed to be a clear answer to that question — **how do I find the right technology to collect, manage, use, and share data across various systems in our CIE?** Our hope is that it will inform a clear process that replaces what is typically a mess of web searches, vendor pitches, and comparing CIE technology struggles with other communities. There is no one-size-fits-all CIE technology solution, which makes sense given how each community and effort is different — though there are many lessons to be learned from past efforts about “right-sizing” the role that technology should play in CIE development, enabling you to have the language and tools you need to select the technology that's best for your CIE.

This guide aims to break down what are often technical and complex decisions (often managed by non-technical leaders) into practical advice for communities looking to build cross-sector care coordination systems like CIEs. **Our fundamental belief is that communities should drive what technologies need to do based on their needs and goals — not be driven by technology providers to conform to the tools they have already built.** This document can also serve as a consensus-building, collaborative tool to aid technical and non-technical stakeholders in your community who are building this shared infrastructure.

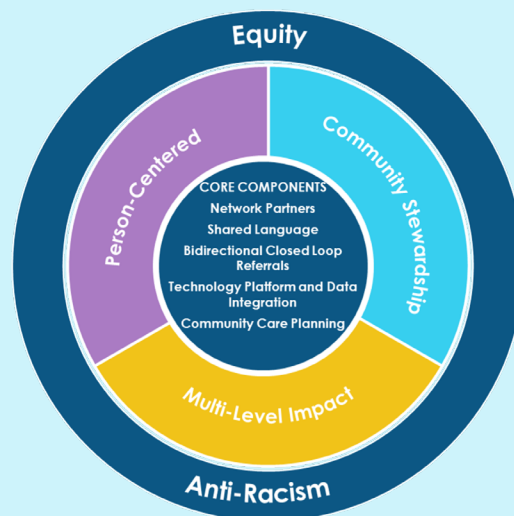
In order to do this, however, communities need to be empowered to guide the technology selection and implementation process, something that many (understandably!) do not have deep experience leading. Unlike in healthcare, data and technology infrastructure for community-based services (aka “social care”) lacks many of the intentional supports for system design and implementation outside of what technology vendors sell them — leading to a lot of unmet expectations, limited interoperability, broken promises for customization, and ultimately unsuccessful or limited care coordination efforts.

We are excited to release the first part of this practical guide, focusing on overall Values and Principles that inform technology selection/development and a handy checklist designed for you to take into meetings with technology vendors and CIE partners.

What is a Community Information Exchange?

A CIE is community-governed infrastructure that enables information to be effectively and responsibly shared among many organizations, using different, interoperable technologies, in support of holistic coordination of care and equitable systems change.

Specifically, a CIE enables the sharing of data among multiple kinds of stakeholders — such as providers who need to share data to provide more holistic care, people in need who must navigate complex systems of care, and researchers and decision-makers.¹



Source: CIE San Diego

In 2026, we will follow up with an only-as-technical-as-necessary breakdown of the core component parts of a CIE technology system, including:



People



Organizations



Care Coordination



Data Sharing and
Integration



Community
Planning

The growth of CIEs and referral initiatives has entered a strange era where federal requirements for conducting social need screenings are at odds with increased scrutiny around addressing social determinants of health (SDOH) and health equity more broadly. Still, the substantial progress made toward data sharing across health and social services, new funding models, emerging data standards, and increasing adoption of such practices nationwide requires a continued focus on effective CIE development — including how technology should be configured to meet local needs, intersect with other data sharing platforms, and build upon infrastructure like Health Information Exchanges.

In some ways, the national conversation around building Community Information Exchanges may seem to be entering adolescence. San Diego's CIE is over a decade old, many states have now adopted CIE language and related referral platforms, and more than a few technology companies have sprung up to meet this growing market. In many other ways, however, Community Information Exchanges are only just beginning to achieve their original vision of deeply interconnected, person-centered care across health and social service providers. Though some foundational tools may be in place, communities developing CIEs have a long way to go — a journey we hope to make a bit easier through this guide.

Where We're Coming From

This paper emerges from several years of conversations, presentations, and overly detailed discussions about the best way to orient Community Information Exchanges — largely between Alana Kalinowski, Interoperability Solutions Architect for the San Diego 211 Community Information Exchange (CIE), Paul Sorenson, Co-Director of the Community Innovation and Action Center at the University of Missouri - St. Louis (UMSL), and Beth Johnson, a public health consultant and longtime partner of 211 San Diego/CIE. We are writing this guide from the premise that **technology is a tool that is meant to help implement the vision, goals, governance, use cases, and priorities of a community creating a CIE — and should not make decisions about these components.** Technology vendors may be key collaborators regarding things like consent, use cases, etc., but these companies overwhelmingly prioritize profit-driven decision-making over the public good.

One of our core guiding principles for CIE development (outlined in more detail below) is centered around the ability for this work to respond and adapt to what people need — which varies across communities with complex and diverse experiences, histories, and evolving priorities. Common concepts and language (standards!) can help connect the dots across communities for resource alignment and shared learning, but cannot replace the essential work of local engagement and decision-making. Likewise, we do not intend for this guide to be a top-down “expert” assessment of what CIE technology should always do or always avoid (though we have at least a few strongly held beliefs); instead, we hope it is a substantial starting point and reference for the critically important work of weaving together health and social services to better serve people and the communities they live in.

Values and Principles for CIE Technology

There are many technical details that are critical to navigate as you select and use technology for your Community Information Exchange. As a foundation for exploring these details, however, it is important to first outline the **Values (our broader commitments in this work)** and **Principles (more specific rules or beliefs that put these values into action)** that we should apply to each piece of the CIE technology puzzle. These values and principles are meant to provide an adaptable framework and guideposts as you work to implement your CIE locally, not “rules” that constrain community responsiveness and CIE growth. We’ll expand upon these in the full guide to unpack their practical implications on your work.

These Values and Principles can apply to all Community Information Exchange initiatives, regardless of their size, state, or funding environment. All existing CIE technologies could align with these values and principles if they chose to; they are largely about priorities, process, and governance — not technology features or engineering.

In short: any CIE technology that aspires to these values and principles can be great; any that do not will struggle.

Value: People should always be at the center of Community Information Exchange

Why It Matters: It may seem like an obvious focus (“of course we keep people at the center!”), but too often the goals and interests of “community” get lost behind the technology details and costs of “information exchange.” We’re in this work to serve people and make it easier for them to get help; to do so, we need to build enforceable structures to make sure we know what people accessing services are prioritizing, how they are experiencing CIE activities, and where to focus our energy and money for CIE development (technology and otherwise).

Principles

- We* work to build enduring structures that keep people’s priorities and experience at the center of CIE development, particularly the patients/clients who access services through it.
- We own our role as stewards and facilitators of community-led privacy, consent, and decision-making practices.
- We elevate the role and value of front-line service providers as key enablers of a CIE’s success who work hard to balance patient/client priorities within complex organizations.
- We aim to address power imbalances that are often deepened through poor technology implementation, especially for groups that are already structurally disadvantaged.
- We recognize that human relationships cannot be automated or circumvented, no matter how much technology companies push for it.

*(*the communities leading CIEs on the ground)*

Value: CIE technologies should balance the priorities and needs of a variety of stakeholders over time

Why It Matters: CIEs are inherently kitchens with many cooks: healthcare providers, community-based organizations, funders, policymakers, and people seeking services. While there may be some enduring tensions across these groups, we recognize that they all generally hold the same goal of pursuing better health and community outcomes. However, CIE technologies are often developed with just a few of these stakeholders in mind — particularly healthcare and funding bodies (including government agencies). These entities often pay for the work but aren't the intended beneficiaries of it, so technologies that focus primarily on their needs should not be surprised when community organizations and people seeking services reject their use.

Effective CIEs should work intentionally to balance and align the interests and priorities of communities with the interests and incentives of healthcare and funding bodies; their technologies should enable this balance and shift as the landscape shifts, not focus their attention and features primarily on who writes the check.

Principles

- We work to ensure that all CIE stakeholders are appropriately prioritized in the development and management of technology systems that balance their interests, incentives, and priorities, even/especially when they are in tension with each other.
 - This requires CIE technologies to fully recognize and align resources across:
 - ◆ **Healthcare stakeholders**, including how the CIE impacts clinical interactions, screening tools, coding, reimbursement structures, and health outcomes.
 - ◆ **Community-based organizations (CBOs)**, including their varied programs/ services, locally-grounded funding sources, limited reimbursement structures, and responsive/specialized (/unstandardized) data practices.
 - ◆ **People seeking services**, including how their needs change and identities intersect over time, family/community ties, and (often grounded) mistrust in various services, providers, and systems.
 - We know that CIE technologies won't work if they are built only for healthcare (or CBOs) or aren't able to create a bridge between the concerns of people seeking services with healthcare/CBO constraints.
- CIE technology planning should be designed to account for future needs as stakeholder interests, incentives, and priorities change over time and with evolving strategies to support the realistic cost and timeline that accommodate those needs.

Value: CIE technologies need to be built for and remain responsive to local communities

Why It Matters: There's a reason why our focus is at the community level, not on building a national network of service providers. People access services locally — the type and responsiveness of those services greatly (and appropriately) vary by place, population, and need. Technologies need to follow suit, enabling local governing structures to build and improve systems that work best for them, even if local structures are intentionally connected at the statewide or regional level. That doesn't mean we can't learn lessons from — or adopt features that work for — other communities across the country, though too often CIE technologies are focused on an economy of scale (best for making a profit), not local adaptability (best for people and health/community outcomes).

Principles

- We recognize that the local mix of policy environments (local, state, national) and funding (government funds, philanthropy, payers) means that each CIE will inherently look different across its goals and practices (“if you’ve seen one community, you’ve seen one community”).
- We seek to create community governing structures that are shaped by local organizations and organizers who represent people seeking services — not only the large stakeholders (like health systems and funders) that typically negotiate technology contracts and features.
- When local structures are connected to statewide or regional initiatives through funding or underlying technology, we work to ensure local perspectives are centered while aligning where possible across communities.
- We work to select and build technologies that can readily adapt to local conditions and priorities, even if it costs more in the short term (“scalable” one-size-fits-all solutions are good for profit, not for people).

Putting CIE Technology Values and Principles into Practice: CIE San Diego's Integration with MissionTracker

In 2019, 211/CIE San Diego and the Salvation Army secured funding from The Regional Taskforce on Homelessness (RTFH) to establish a collaborative initiative of 11 service providers for cross-organization care coordination to demonstrate the essential impact homelessness prevention programs have on keeping people housed (see [CIE San Diego's June 2024 paper](#) for details). As an outgrowth of this work, CIE San Diego began partnering with the San Diego Rescue Mission, a large Christian homeless services organization, on deeper data and care integration — including interoperability between CIE San Diego's Salesforce-based data system and MissionTracker ([mission-tracker.com](#)), Rescue Mission's primary data system.

Project goals included integrating CIE and Rescue Mission data for Medicaid reimbursement with California and providing Rescue Mission with more comprehensive information about social services available in the area and their impact on their clients. This was accomplished through real-time, bi-directional API integration that shares client data (upon consent) between Rescue Mission and CIE San Diego, including program enrollments, social needs assessments, and relevant care teams. Rescue Mission staff can access CIE data from inside MissionTracker for seamless care coordination, including how such data can be used to bill California Medicaid for relevant services.

Value: CIE technologies should be oriented around sharing and alignment, not ownership and control

Why It Matters: For work that has “information exchange” in the title, it’s frustrating how often the exchange of information across providers and technology systems is prevented by high costs, antiquated systems, lack of standards adoption, and competition between vendors (who are hesitant to share anything with each other). We use “CIE technologies” (plural) here for a reason; a CIE cannot be managed by only one technology or platform, regardless of how fancy its features are. Because of this, CIEs need to elevate interoperability as both a technical and values-oriented priority.

Principles

- We work to foster a healthy ecosystem of services across multiple care settings, focus areas, communities, and technology systems; aligning and weaving these components together is the primary strength and focus of a CIE.
- We believe this complex service ecosystem should be viewed as a garden to be tended with care to promote healthy outcomes (each part impacts the whole), not as a machine we can engineer to produce predictable, efficient service outputs.
- Recognizing the complexity of this ecosystem, we know that multiple technologies need to be used — and aligned — in order to achieve positive health and community outcomes.
- We also know that sharing and aligning data requires data “ownership” to go beyond the control of one technology platform, including data about the resources available to community members — ideally being managed through clear community-based governance processes and dynamic consent systems that are easy for people to navigate themselves.

Project Impact: CIE San Diego’s successful integration with MissionTracker highlights how technology can be focused on local adaptability across organizations to provide materially enhanced care for those they serve, which closely aligns with the Values and Principles outlined in this paper. A significant challenge for CIEs is the dominance of major software systems — largely EHR and referral platforms — that are hesitant to adapt their features for local (and state-specific) use cases given their market dominance. The Rescue Mission project demonstrates that CBO data systems, which are often viewed as outdated and integration-resistant, may actually be more technologically capable for CIE care coordination — especially when the CIE’s primary data system is configured to enable such exchange.

This project’s success has implications for how non-clinical care platforms like MissionTracker are prioritized as states and localities across the country expand Medicaid reimbursement for non-clinical services, pursue the creation of health data utilities, and otherwise make investments in technology to align health and social service delivery.



A Handy Checklist (+ Quick Reference Guide)

How can you proactively use the Values and Principles outlined above in your work — especially as technology selection requires translating them into tactical software functions and RFP specifications? The following provides two starting points for the work ahead:

- The high level **Dos and Don'ts** below outline some of the most common ways we see these Values/Principles show up in practice (or, critically, fail to show up).
- The following page provides a **handy checklist** to help define what an effective CIE technology actually needs to do — which we hope can be helpful as you evaluate vendor sales pitches and trudge your way through RFP processes.

Dos and Don'ts

✓ Do

- ✓ **Design and Consent:** Take time to understand and convey to your community partners that CIEs are always an ecosystem of tools that respond to community-based needs.
- ✓ **Control** as much of your CIE technology as possible under your community strategy, goals, and priorities.
- ✓ **Data Sharing and Ownership:** Maximize control over your CIE technology within your community governance framework, including aspects such as data, data element decisions, data values, and research.
- ✓ **Decision-Making and Insight:** Identify the technological requirements alongside your community partners, and remain flexible to adapt to new technologies as those needs evolve.

✗ Don't

- ✗ Do not trust that technology alone can fix a disjointed system of care or care silos.
- ✗ Do not invest in a technology that promises to “do it all.”
- ✗ Do not adopt technology that is not able to accommodate your community-led decisions.
- ✗ Do not let technology vendors or disconnected institutions determine how your community manages the CIE.
- ✗ Do not choose a technology vendor that does not respond effectively to individuals seeking services, including consent management, data access, and other personal choices.

What Does a CIE Technology Actually Need to Do?



Core Components

- ☐ Host and integrate with resource data, including classifications.
- ☐ Support CIE-defined consent, data sharing, and governance.
- ☐ Integrate with Client data across systems (ID, context, activities).
- ☐ Data segmentation, conditional rules, and field-level provenance:
 - ☐ Source of the data
 - ☐ Applied client choice
 - ☐ Redisclosure use case
 - ☐ Categorized content
 - ☐ Relevant privacy laws



Interoperability

- ☐ API configuration that can integrate with CIE's legal framework and community-led ethical consent management system.
- ☐ Able to store metadata from diverse data sources (see: San Diego's Client Data Source Object).
- ☐ Able to use/translate data standards when applicable or available, and flexible enough to add standards as they iterate.
- ☐ Able to integrate with HIEs and other critical data intermediaries.



Customization & Adaptability

- ☐ Reconfigurable data models and data sets.
- ☐ Able to provide community-tailored data elements that capture information about the whole system of care (beyond referrals).
- ☐ Maintain conditional relationships of data as discrete data, not a text box.



Privacy, Security, and Governance

- ☐ At least HIPAA-compliant, including for CBOs/non-covered entities.
- ☐ Specified process for shifting consent practices based on state law and local governance.

References

1. Grounds, K. and Johnson, B.H. **Leveraging Community Information Exchanges (CIEs) for Equitable and Inclusive Data: A Vision for the Future**. 211 San Diego, 2021. <https://ciesandiego.org/wp-content/uploads/2021/12/A-Vision-for-the-Future-FINAL.pdf>
2. Sorenson, P. and Bloom, G. **Tackling the Data Dilemma in Social Care Coordination**. 2021. <https://stldata.org/wp-content/uploads/2021/10/Social-Care-Data-Whitepaper-October-2021.pdf>
3. **Leveraging Collaboration To Demonstrate How To Effectively Prevent Homelessness**. 211 San Diego, 2024. <https://ciesandiego.org/wp-content/uploads/2024/11/RTFH-Paper-10.7.24.pdf>

Stay tuned for the full toolkit in 2026, which will provide more detailed information about the components of CIE technology, how they should fit together, and how different communities across the country are approaching this work in practice.