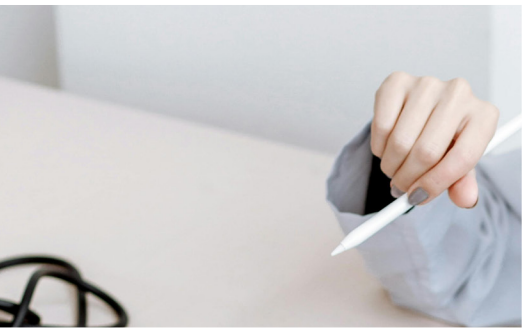
# Addressing Health Related Needs Through Technology Platforms and Closed-Loop Referral Networks

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# Table of contents

# Introduction

Health centers and other health sector providers are working to address patients' basic needs (food, clothing and shelter), because **without basic needs met, patients are less likely to be healthy**. Without basic needs met, patients are also less likely to effectively and efficiently engage with the health sector.[1]

**Patients' basic needs**

food clothing shelter

**The terms non-medical factors of health and Health Related Needs (HRN) both refer to everyday needs such as housing, food, safety and transportation that impact a person's ability to maintain their health**. Research has indicated that non-medical factors of health plays a greater role in health outcomes than many aspects under direct control of the health sector, such as clinical care and medications.[2] Health sector partners including Health Centers, Managed Care Organizations (MCOs), hospitals, urgent care and emergency departments, behavioral health clinics, and specialty providers are all examples of health sector organizations whose outcomes are impacted by patients being unable to meet non-medical factors of health needs.

[1] SDOH-Evidence-Review.pdf

[2] Social Determinants of Health (SDOH) | About CDC | CDC

# Introduction (cont)

With these facts in mind, the health sector has begun to develop technology resource platforms that organize information about Community Based Organizations (CBOs) and social services providers in a given geography. CBOs that are included offer assistance to meet basic needs and address non-medical factors of health. The goal is to have a technology based, Business to Business (B2B) platform that facilitates easy-to-access information for referral sources and individuals. The platform informs community members how to address needs and assist health care providers in making simple and effective referrals. Platforms are designed to implement referrals systems, track outcomes, and when combined with health sector

data, offer analysis on the impact of referrals on health. While the platforms have been in existence for over a decade, their accuracy, comprehensiveness and overall effectiveness have been evolving over that time.

**This toolkit will offer health centers an update in that evolution and how they can contribute to improving these systems to better serve their patients.**


| Acronym Guide | |
|---|---|
| **HRN** | Health Related Needs |
| **HRSN** | Health Related Social Needs |
| **MCOs** | Managed Care Organizations |
| **CBOs** | Community Based Organizations |

# Purpose of Health Related Needs (HRN) technology platforms

## Why Health Related Needs (HRN) platforms exist

**Health research has long noted that health improves when basic needs (food, clothing, shelter) are met.**[3] Given this well-established fact, health centers have tried to better assist their patients to meet basic needs. Recent evaluations show that when Health Related Needs (HRN) are screened for and assistance is provided, use of acute care and costs can decrease.[4] With the goal of improving public health and longevity for all, addressing these needs becomes a priority for the health sector. Health research group these basic needs together as non-medical factors of health and/or Health Related Needs (HRN). Over decades, health centers have evolved a well-developed network of specialty care for their patients. Many health centers have also developed a network for Community Based Organizations (CBOs) to assist health center patients in meeting basic needs. However, while aware of non-medical factors of health impact, most health center partners have limited internal capacity to assist and are not paid for developing that capacity. These technology platforms were created to address this limited capacity and organize information community wide and therefore make referrals easier. Platforms can also gather information and data needed to better address patient needs at the individual and community level.

[3] Research Summary: Social Determinants of Health | Public Health Gateway | CDC and Impact of hospital and health system initiatives to address social determinants of health (SDOH) in the United States: A scoping review of the peer-reviewed literature | SIREN

[4] Accountable Health Communities (AHC) Model Evaluation Final Report and Medicaid Spending and Health-Related Social Needs in the North Carolina Healthy Opportunities Pilots Program | Health Care Economics, Insurance, Payment | JAMA | JAMA Network

# What HRN technology platforms can help

Technology platforms envision information being organized in such a way, community wide, so that all health care providers (hospitals, emergent and urgent care clinics, health centers, behavioral health clinics, doctors' offices) can use the platform to assist their patients. Health care providers are gaining a better understanding of their patients' health-related needs (HRNs) through screening and referral platforms. These tools help identify the most common needs among patients, determine where referrals can have the greatest impact on health outcomes, and reveal where community needs exceed available resources. Primary care and health centers, building upon workflows and referral systems for care management or specialty care, are developing similar efforts to address non-medical factors of health needs.[5]

Social services that address health-related social needs, including food, shelter, housing, and clothing assistance, are often provided through fragmented, siloed, and under-resourced systems. Health care providers may not be aware of ALL sources of assistance in their communities. Eligibility criteria and referral processes often vary across systems and even among individual providers, making them complicated to navigate. In addition, resources are limited, and assistance can be difficult to access. A technology platform that organizes information community-wide can address the fragmentation and make systems easier to access.

The platforms also track referral information in a closed loop referral system (CLRS), so that referral sources (e.g. health sector partners) can see if the referral was completed. **"Closed loop" is a term used in these systems, though the term can have different meanings including:**

- Referral **Received** by the CBO
- Referral **Accepted** by the CBO
- Referral **Implemented** and person was assessed by the CBO
- Person **Received Assistance** from the CBO that the referral requested, and if not, what the outcome or reason was.

[5] Integrating Care Coordination with Social Referrals | GridSocial

# What HRN technology platforms can help (cont)

Platforms can be used as a communications channel and/or data sharing platform between health partners and CBOs. Platforms can also identify the common health related needs among their patients, determine  where referrals make the most impact on health and costs, and highlight what gaps exist between community needs and available resources. Health sector partners can prioritize investment in sectors, agencies and populations based upon data driven health improvements for their patients.


For the last decade or so, health care providers have been screening for HRSN needs. To organize and study the impact of these efforts, the Center for Medicaid and Medicare Services (CMS) piloted the Accountable Health Communities (AHC) model[6] in 28 communities nationwide.

### The pilots were broken into two tracks

1. **Assistance Track –** pilot sites here screened for non-medical factors of health needs and offered referrals
2. **Alignment Track –** pilot sites in this track conducted the same activities as the assistance track AND worked with Community Based Organizations (CBOs) to make sure that community services were available and responsive to the needs of those being referred.

[6] Accountable Health Communities Model | CMS

# What HRN technology platforms can help (cont)

Use of these technology platforms was prevalent for many providers in both tracks. AHC pilots across the country broke down non-medical factors of health efforts into four separate groups of activities including:

**Screening**

Asking patients questions about what needs are not being met?

**Referrals**

If patient reports that basic needs are not met, referring to community resources for assistance

**Navigation**

Assisting patients to access referrals and resources

**Alignment**

Actively working with agencies, or systems in non-medical factors of health sector partners to better address the needs of those being referred

All pilots offered Screening and Referrals efforts, while only the Alignment track participants offered Navigation and Alignment supports. The final evaluation for the AHC model found that screening and navigation assistance across 28 sites reduced health care expenditures for the sample population.[7]

Pilots such as these learned that developing standing communication mechanisms between health sector partners and CBOs in the alignment track was new territory. Prior to these platforms, health providers may have offered paper referrals, or notes on where to gain assistance, but had little understanding of how these systems were accessed, who was eligible and if the referral was followed through on, either by the patient or the CBO. In these new collaborations, all partners gain a more comprehensive view of community need, partners to collaborate with, and a strategic path forward when investments are possible.

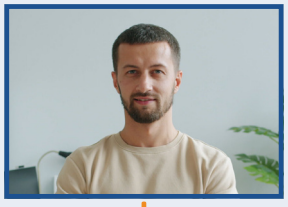
[7] Accountable Health Communities (AHC) Model Evaluation Final Report

# The referral life cycle

## Who refers to CBOs for non-medical factors of health needs?

These platforms are commonly set up by health sector partners including managed care and hospitals. Referrals commonly come from care managers or hospital social workers assigned to address needs identified in screening tool responses. Other health sector players, such as health centers and other primary care practices, also use similar screening platforms and tools.

### Connecting People to Care



Tom shows up at Sue's organization.

### Screening

Sue screens Tom and identifies that he has additional social needs, such as childcare, emergency food assistance, and individual counseling services.

### Referral

Sue uses Unite Use to **gain digital consent** and electronically refer Tom to multiple community partners. Through the platform, she can seamlessly **communicate with the other providers** in real time and securely share Tom's information.

### Resolution

### Feedback

As Tom receives care, Sue receives real-time updates and tracks Tom's total health journey.

# The referral life cycle (cont)

## Who receives non-medical factors of health referrals and how do they respond?

Exactly *who* receives referrals may depend upon *how* the platform operates. CBOs must sign up to a platform to receive referrals from the platform. A common practice is for the organization managing the platform to pay for licensing, so that cost to join is not a disincentive for CBOs. CBOs may have other incentives and disincentives to sign up to the platforms. Some platforms use Artificial Intelligence (AI) to gather data from across the internet and use that data to populate their systems. Other platforms require CBO referral sources to populate information in the platform. CBOs must choose how to respond based on capacity, eligibility criteria, access processes, and other factors.

## Who benefits?

Persons who receive help meeting basic needs are the most common beneficiaries of these platforms. Health sector partners that can better serve their patients and improve their health outcomes. CBOs may receive incentive funding to participate or may receive support to become a Medicaid biller and grow their business and the services they provide.

## Early examples

The earliest examples of these platforms emerged from non-medical factors of health Health-Related Needs Screening Tools that identified needs but had no way to systematically address them. Health Centers developed the PRAPARE® Screening Tool | PRAPARE as a way to systematize screening. CMS also developed its own Screening Tool for the Accountable Health Communities research. Health centers, that were now quantifying need, drove a solution to address that need.

Venture capital were some of the earliest supporters of these platforms, they saw a technology solution and an emerging market. Early examples such as Aunt Bertha, NowPow, Findhelp and Unite Us began to develop their platforms, engaging a wide range of geographies and populations. Early research summarized the various efforts and functionalities. An early challenge was that each geographic area had multiple systems, and each system was only as valuable as the information it contained. Historically communities also had analog 211 systems that had a similar purpose and were well known in communities. San Diego, in particular is known for using their 211 system to evolve into a non-medical factors of health platform.[8] The Social Innovations Research and Evaluation Network or SIREN, summarized early efforts in 2019.[9]

**Various community health leaders saw the vision, utility and early promise in these systems. Examples include:**

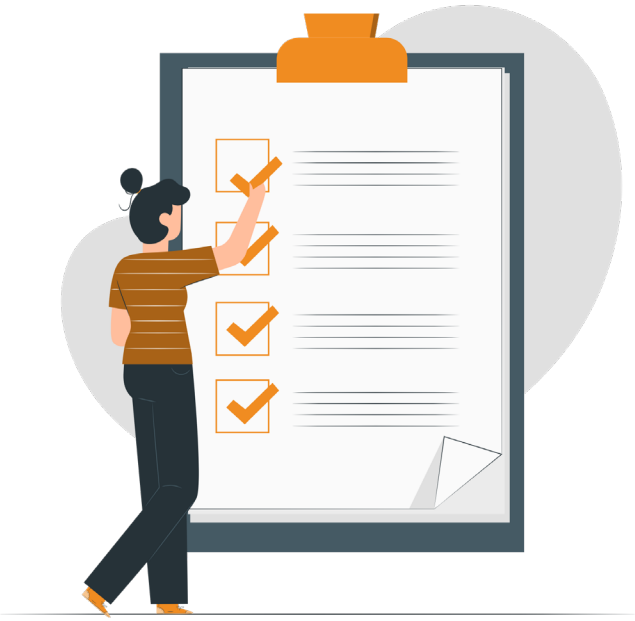
- Boston Medical Center - THRIVE Program
- North Carolina – Health Opportunities Medicaid Pilot Programs
- California – CAL AIM and Success Stories
- Denver Health and University of Colorado – CARELOOP Program
- Missouri – The Beacon Medicaid Pilot Program

[8] Communities in Action - Home Start

[9] Community-Resource-Referral-Platforms-Guide.pdf

# Early examples (cont)

Early research, such as North Carolina's pilots are showing success in improving health and reducing costs.[10]



States became interested in this innovation and its ability to lead to healthier populations. States also looked to create a single system statewide that would have the most valid data. North Carolina was an early leader with the NCCARE system, and aligned this new system with their Medicaid 1115 waiver and their Healthy Opportunities Pilots | NCDHHS. Oregon and Arizona, also states with approved Medicaid 1115 HRSN waivers, are creating statewide systems that address various individual and agency needs. Recognizing that CBOs need support to engage in these systems, Oregon in particular, is adapting the system to submit Medicaid claims for services, a new but vital function as these systems are being built out. HRSN waivers have also included capacity building funds to support CBOs linking to and entering data into these systems.

[10] https://jamanetwork.com/journals/jama/fullarticle/2830892?utm_source=substack&utm_medium=email

# Current status and challenges

The research shows much promise in these efforts; however, bringing them to scale has raised as many challenges, as problems it has solved. Each solution opens up a new set of issues to resolve, but partners have been coming together and evolving the field. Most common is the capacity of CBOs to resolve the needs of all who are referred.[11] Additional challenges include unaligned eligibility criteria, complicated access processes, multiple definitions of singular concepts, multiple data systems, and differing outcomes all contribute to the challenge as well. Social services agencies are only now beginning to develop intentional, thoughtful workflows, rather than respond crisis to crisis while these systems require workflows to be integrated into efforts.

## Capacity

A fundamental issue is that CBOs seldom have the capacity to meet needs. A referral to "housing" is often at best a shelter bed or other short-term option. Food pantries close when supplies run out, and violence prevention programs can usually only serve a limited number of those who could benefit from their services. These systems do have the ability to begin to better estimate community needs and research that documents that need and what is needed to fill gaps could move the field forward.

## Eligibility criteria

CBOs commonly have strictly defined eligibility criteria, to ensure that limited services reach those most in need or align with the CBO mission. Eligibility criteria can be complicated and obscure. If a referring source using the platform is not aware of eligibility criteria, they may send people for assistance, who do not meet eligibility criteria, frustrating all involved. As platforms have evolved, they increasingly are tracking eligibility criteria for each CBO to address this concern. But accurate information most commonly relies on the CBO to enter current eligibility criteria into the system.

[11] The Camden Coalition Care Management Program Improved Intermediate Care Coordination: A Randomized Controlled Trial | Health Affairs These Patients Are Hard to Treat - The New York Times

## Access processes for CBO resources

CBOs may also have their own access processes that the referring health sector partners or their patients may not be aware of. Food pantries may have limited hours. Homelessness programs, childcare, disability and/or older adult services will all require a completed assessment to determine the most meaningful intervention. Depending upon the system, a 'completed referral' may mean someone who received assistance, or just someone who received an assessment. This confusion will impact outcome data as well. As with eligibility criteria, these systems are evolving to track the assessment process, with the goal of educating referring partners and to improve outcomes for those accessing assistance. The goal remains a system that can educate and refer as simply as possible.

## Definitions

Diverse sectors use the same word for different concepts, thus challenging effective communication. For example, the definition of a ***closed referral*** differs across systems and sectors.

Some use the term to mean the referral was

- sent
- accepted
- received
- followed up on

Or resulted in the individual receiving assistance.

All are critical steps in the process, but all must be clearly and specifically defined in order for research into impact to have any validity.

# Multiple data systems

Health sector and CBO data systems are seldom the same systems with easy interoperability. In fact, CBO is an umbrella term used to describe diverse sectors (housing, food insecurity, etc.) each with its own unique data systems, data standards, and quality metrics.

### How different types of social service agencies would engage with a CLRS

**Homeless Management Information Systems (HMIS)**

Most organizations that provide homeless services such as shelter or temporary or permanent housing use a HMIS to track homeless program need and use across a community. CLRS platforms might expect only simple updates on whether a shelter bed was accessed if no API integration is created.

**Food insecurity platforms**

Organizations such as food pantries, meal delivery programs and congregate meal sites commonly use client intake and service tracking tools rather than full case management systems. Food banks in particular use supply-chain-oriented platforms while front-line pantries rely on simple client logs. In a CLRS context, these organizations often prefer referral receipt plus some basic confirmation of services rather than full case management within the platform.

**Public benefits and economic stability**

Organizations typically use eligibility screening and enrollment tools and heavily rely on state and/or federal systems and rules. It is rare for any integration with CLRS to happen with public benefit systems, usually only manual status updates such as “resolved/not resolved” are available.

**Employment, education, and workforce development**

Agencies use various types of platforms to manage cases, similar to other social service sector agencies. These systems are really oriented toward performance metrics and outcomes such as job retention. CLRS platforms can utilize these agencies for referrals, but usually the engagement would end there.

## Multiple data systems (cont)

Most CBOs will need assistance to integrate these new processes into their workflows. Smaller organizations may not even have formal workflows embedded into their software systems, and may need more support to integrate a CLRS into their environment.

In addition, the accuracy of the data in these systems reflects only what was submitted, either by CBOs themselves or via a data mining process. However the information is obtained, robust quality assurance processes will be essential to ensuring data accuracy and the success of these systems.

## Differing outcomes and quality metrics

Finally, all non-medical factors of health technology platforms and systems are created with a goal of improving access to assistance and health. Intentionally, collaborative efforts are needed to define the goals of the program, why goals are not met when that occurs and develop strategies to meet those goals. Health sector partners will screen, refer, and at times assist patients to connect to CBOs. CBOs may participate in these platforms, or not, and outcomes will be impacted by CBO decisions. When assistance is not received, the answers can be myriad, including referral not received; the person does not meet eligibility criteria, limited follow up by the individual, or limited capacity of the CBO. Determining what are the most common reasons for lack of success in a referral and devising solutions to address those challenges will be driven by understanding specifics of the challenges.

# Solutions: resources to address needs

The solutions below could all flow from including cross-sector leaders in the planning process for these systems at the start. The solutions also assume CBO capacity to engage in these systems and conversations and therefore some type of planning grant or other support will be needed to engage the CBOs.

## Capacity

CBOs have limited capacity (too few beds, too little food) and often cannot serve those who currently come to their programs for assistance. A large increase in referrals, without a large increase in resources will have limited impact. CBOs often are not brought into these conversations, either from a planning or funding perspective, until the program is set to open. Being a part of efforts, in the early planning stages builds buy in and increase collaboration.

### CBOs need a variety of supports to be effective partners

**Engagement**

These systems and their impact on the CBO mission need to be explained and the value case made to the CBOs.

**Training**

CBO staff who have a role in responding to referrals, data management, quality assurance and finance all need training on how to use these systems and how the use of these systems is integrated into existing workflows.

**Financial support**

Adding tasks for small non-profits commonly means adding new staff, which brings additional costs. CBOs have commonly requested small grants or financial support to engage in these networks. These systems often require licenses and use of the system means new costs to CBOs. Either CBOs could be waived from these costs or supported in another manner to cover those costs.

**Data and reporting**

CBOs with a variety of funders have a variety of information and data that is needed to maintain their financial viability. A key benefit of these systems to CBOs is their ability to build upon existing often limited information systems and offer data that can be used in required reporting.

## Eligibility criteria

These platforms need to include up front critical details around eligibility criteria for resources that are offered via the platform. A hospital may refer a food insecure patient to the closest food pantry, but the pantry may only serve seniors and a younger person being referred will not qualify. Systems can be developed so that only referrals that meet each CBO's eligibility requirements will be allowed to generate a referral.

### Solutions

- Including people with lived expertise, or those who use the systems as part of the planning and development of the systems, to ensure matches between resources and referrals.
- Platforms data collection systems on referral sources should include information about eligibility criteria as part of their screening process to ensure that referrals match program eligibility criteria.
- Regularly scheduled systems updates, so that systems can evolve to meet the needs of referral sources and persons being referred.

## Access processes for CBO resources

CBOs will each have their own access processes, and eligibility criteria are often tied to these processes as the access process assesses if a person meets eligibility criteria. Clearer information on access process as part of these systems will allow referral systems to support referees through the process and likely increase the percentage of successful referrals.

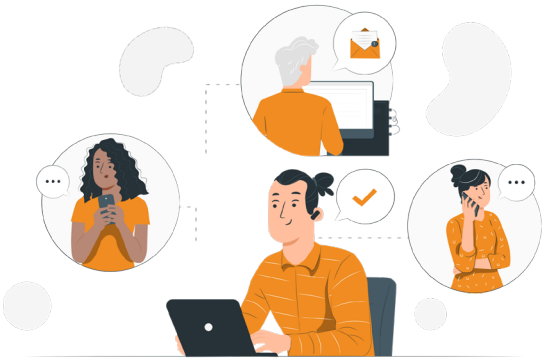
### Solutions

- Platforms data collection systems to include questions on access processes, requirements for CBOs who wish to be included in the platform and capacity building funds to support CBO engagement.
- Platforms to develop recommended workflow templates for CBOs to adapt to their communities and needs.
- Platforms developing a community engagement schedule and regular meetings with CBOs and those who use their services or wish to use these services to learn what adaptations might be needed to improve outcomes.

## Definitions

Differing definitions across sectors require a cross-sector planning process that results in a data dictionary for use by all partners using the platform. Existing systems can gather their current referral sources, data, and terms for review by all partners.

**The dialogue between systems at this stage is essential to keep growing the cross-system collaboration and reduce the burden of those who need assistance.**



### Examples

1. The definition of a CLOSED Loop can be defined by all partners. Where disagreements exist, those disagreements exist; **the system can be built to acknowledge the disagreements.**

2. The meaning of the term and the support offered under **the term 'housing' differs across systems.** Most non-medical factors of health platform systems would consider a shelter referral and bed a 'closed loop' and track that under housing, while homeless systems would not.

# Multiple data systems

## Leveraging multiple data systems to strengthen CLRS

This section provides high-level information on how to engage other systems and provides an overview of what they can contribute to a CLRS.

| | Homeless Management Information Systems (HMIS) | Food insecurity platforms | Public benefits and economic stability | Employment, education, and workforce development |
|---|---|---|---|---|
| How to engage | Partner with Continuum of Care (CoC leadership and HMIS leads to align referral workflows and data sharing agreements. Prioritize limited integration elements (e.g. enrollment, exits, shelter bed availability) rather than full system interoperability. | Work with food banks and pantry networks to define simple, low-burden referral confirmation processes. Offer lightweight participation options, such as referral receipt and service confirmation rather than full case management integration. | Focus on integration through eligibility screening tools and community-based enrollment partners rather than state or federal system integration. Establish workflows for updating referral outcomes (e.g. application submitted, approved, pending). | Partner with workforce boards, training providers, and education programs to align referral pathways and outcome reporting. Define shared expectations for follow-up (e.g. job placement, training completion) |
| What this system contributes | Real-time or near real-time data on housing inventory, program capacity, and service utilization. It can also provide client level data on housing history, assessed vulnerability, and service engagement. | Information on food access points, service frequency, and basic client needs; data on immediate, short-term service utilization (e.g. meal access and pantry visits). | Eligibility criteria and screening logic for benefits such as SNAP, SSI, TANF, and status updates – even if they are manually set – on benefit application progress. | Data on employment readiness, training participation, credentials, and job placement outcomes. These data can support performance metrics tied to long-term stability (e.g. retention, wage progression). |
| How this strengthens CLRS | HMIS data can improve referral accuracy by matching clients to appropriate housing resources. It can reduce duplicate enrollments, and enable visibility into whether referrals result in actual program enrollment. | Provides rapid "closed-loop" confirmation for essential services; expands the network of responsive, community-based providers; supports triaging of urgent needs. | Can bridge the gap between community providers and public systems by enabling more informed referrals by identifying likely eligibility upfront. It can also help support tracking of longer-term stabilization outcomes beyond service receipt. | Extends CLRS value beyond immediate needs to economic mobility outcomes; enables tracking of longer-term success after initial referrals, and supports better matching to workforce opportunities. |
| Client impact | Faster placement into appropriate housing interventions and reduced need to repeat eligibility or housing history information. | Quicker connection to food resources without complex intake barriers and increased reliability of referrals for basic needs. | Increased access to income supports and health coverage; reduced confusion about eligibility and application processes. | Access to pathways for income growth and self-sufficiency; more coordinated support across housing, services, and employment goals. |

# Multiple data systems (cont)

## Leveraging multiple data systems to strengthen CLRS

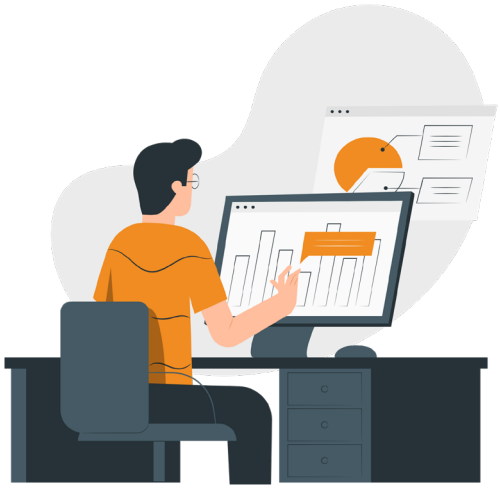
Some key cross-cutting principles to keep in mind when adding cross systems strategies to CLRS can help guide your efforts.

### Key cross-cutting principles

- **Start with "minimum viable integration":** Focus on a few high-value data points (e.g., referral status, service confirmation) before pursuing deeper interoperability
- **Use intermediaries where possible:** Engage networks (CoCs, food banks, workforce boards) to scale participation across many providers
- **Prioritize workflow alignment over technology:** Ensure referrals fit into how organizations already operate
- **Invest in data quality and trust:** Provide clear guidance, training, and feedback loops to improve accuracy across systems
- **Design for flexibility:** Allow different levels of participation based on organizational capacity

# Differing outcomes and quality metrics

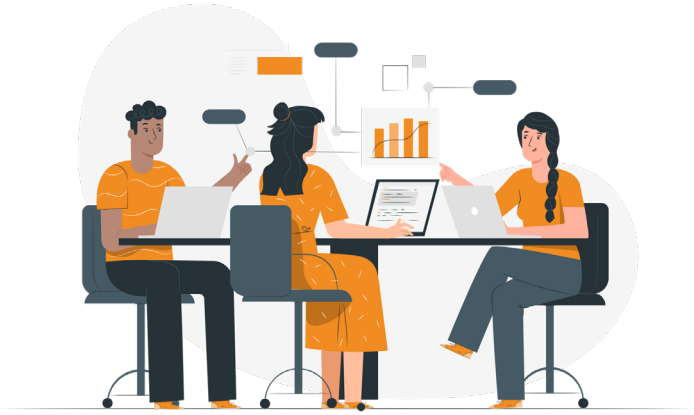
As part of a cross-sector effort, outcomes and quality metrics relevant to both sectors need to be considered. The planning process should include partners who are knowledgeable about a few critical variables, commonly collected across sectors that can capture the impact of the non-medical factors of health platforms. Ideally this planning integration will lead to small groups of cross-sector variables, tracked by the platform and of use to both the referral sources and the CBOs receiving referrals.



CSH's Guide to Key Outcomes and Data Tracking can help you begin the process of determining how to track data and outcomes that are relevant to both health centers and CBOs that have their own outcomes and quality metrics needs.

# Conclusion

The paper outlines examples on this collaboration and the effective strategies to deliver on the promise of non-medical factors of health platforms. Health centers, looking to better serve their patients, are screening patients for non-medical factors of health needs. collaboration and the effective strategies to deliver on the promise of non-medical factors of health platforms.



- When needs arise, health centers are turning to the technology solution of non-medical factors of health platforms to make referrals.
- Those platforms are evolving into the most effective way to understand the local landscape of Community Based Organizations (CBOs) that help people meet non-medical factors of health needs.
- While much progress has been made, these platforms are most effective when created and developed in collaboration with local CBOs.

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2024-04-17 Session #3 HRSN Referrals, Workflows, Role of CIE.pptx

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**FindHelp** Manage Closed-Loop Referrals With The Findhelp Platform - Findhelp

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