Best Practices from the Field: Using Social Determinants of Health Resource and Referral Data to Increase Equitable Access and Connection Rates to Essential Resources
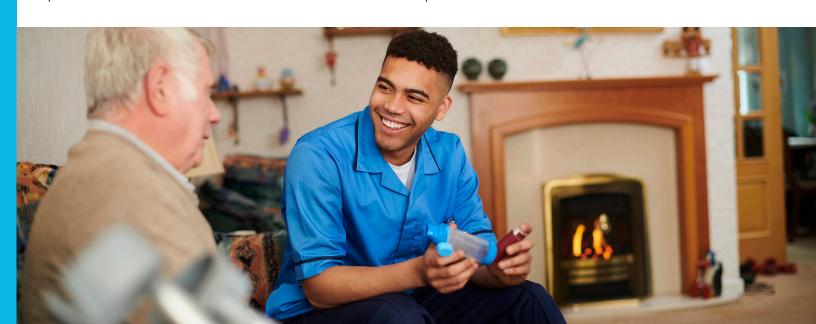
Introduction

The COVID-19 pandemic has underscored and widened the gap between the needs of communities and availability of resources along with the need for accurate data to support decision making and quality improvement. Our already-fragile social safety net is struggling to address the economic consequences of the pandemic, demonstrated by unprecedented unemployment and high rates of food and housing insecurity (Quinn and Law 2020). Prior to COVID-19, health care investments in SDOH programs to support connecting patients to community resources were on the rise, supported by a proliferation of technology solutions like Aunt Bertha, Unite Us, NowPow and others (Patchwise Labs 2018). These resource databases serve as critical tools for tracking the local services landscape and connecting people to the essential resources they need to be healthy (Cartier et al. 2019). However, when adopting these technology solutions to support SDOH programs, it is important to recognize that more resource information does not always result in people being connected to resources. There are best practices for managing resource information, and using and interpreting the data to effectively and equitably connect people to resources. Here, we aim to provide examples to demonstrate the ways in which data usage and interpretation can impact equitable access to essential resources and improve connection rates.

An Overview of Resource Database Management

The application of Reach in various settings since its inception in 2011 has greatly informed how we can address more upstream health factors and systemic challenges related to resource access. Most importantly, data collected through Reach has offered critical insight into building, managing, and curating resource databases.

From tagging COVID-19-related resources and collating special COVID directories, to creating entirely new and separate websites and local resource guides specific to the pandemic, all social needs platforms have had to adapt to the dramatically-changed landscape of needs and services in 2020 (Cartier, 2020). Some resource referral platforms have moved away from tracking referrals in order to preserve limited community-based organizational resources and coordinate services quickly and with more flexibility, and some have leaned into creating tools like maps and indexes to better understand the geographic variances in essential needs and resources. (Raths, 2020).

The aspects that made Reach a valuable tool before 2020 - the collaboration between service providers and referring organizations, the community-tailored resource curation, and the continuous verification of business hours and services provided - are even more essential in the context of the COVID-19 pandemic.

Key Factors for Successful Resource Database Management

Curate Databases to the Needs and Priorities of Communities Served: Selected resources should reflect the geographic, demographic, cost and accessibility specification of the community. For example, a typical adult clinic's database might include resource categories such as transportation assistance or job placement, whereas a pediatric clinic might include resource categories such as diapers or after school programming. Alternatively, while these two clinics may have similar resource categories, the amount of resources in each category (e.g. child care) might need to be more expansive to accommodate the sheer volume of need for the population in the clinic.

Databases should be Continually Audited: To ensure resources are up-to-date, meet the changing needs of communities, and are culturally responsive & patient-centered, databases should be regularly audited by Resource Specialists and end-users such as patients and community residents.

Design Databases with those who have the Most Barriers in Mind: Databases should be designed to serve those with the most barriers to access, such as undocumented immigrants and formerly incarcerated populations. This approach has been proven to improve the overall quality of the database for all patients (Blackwell 2017).

Use of Key Metrics: There are several key metrics that are essential to support ongoing programmatic improvement and assessment of the resource landscape in a region, including:

- Number of referrals to a resource: used to track demand for a specific type of resource in a community

- Number of referrals that lead to a patient successfully accessing that resource: used in tandem with the above metric to assess if patients are able to access a resource and can also be presented as a percentage of successful connections. The meaning of "Successful Connection" should be clearly and consistently defined by the program (Perla et al. 2017).

- Date of last resource profile update: used to understand how up to date resource information is.

Further information on social health data collection and analysis can be found here.

While metrics are important for quality improvement, it can be easy to misinterpret the data in ways that may impact community organizations listed within the database (or those that are left off the list) and the patients the program aims to support. This is particularly important as we consider the implications that misinterpreting data can have on health equity. While there are many nuances to data collection and interpretation, our work with partners across the country has surfaced the insights below.

Resource Data Best Practices

Context Matters When Interpreting Data

Understanding the context, including place, population, history and relationships underlying the referral data, is necessary when using the data to understand the resource landscape and deliver high quality service to patients (Gaddy and Scott 2020; Beck et al. 2019). For example, in building a resource database for a partner in Kentucky, we learned that how accessible a resource is to a person depends on the built environment and how people get around. In rural Kentucky, where many people drive, a resource 30 miles away is still accessible while in urban areas, where the population is more reliant on public transportation, a resource that is 30 miles away might be inaccessible and thus might have a lower rate of successful referrals (Lloyd 2019). Availability and accessibility to a resource is a determinant of successful connection reflected in referral data. Knowing who you serve allows for tailoring of database and resource navigation.

Resource usage data cannot be interpreted correctly without additional knowledge of program or population

When managing databases across the country, we observed that a few resources accounted for a high number of referrals. Though it is tempting to remove unused resources to reduce clutter within a database, they may very well serve a purpose for a highly specialized population due to eligibility criteria, languages spoken, or other factors that promote accessibility. Rather than make decisions about resource management in a vacuum, teams should have meaningful conversations with community resources to interpret referral data. Through further exploration, we learned that underutilization was not necessarily an indication of importance or quality, but rather other factors were at play – for example organization's had highly specialized services or limited hours.

Teams must also consider how the design of the referral processes to community resources determines which ones are utilized. For example, one of our New York programs connects pregnant women and new mothers to community resources to increase healthy birth outcomes. The program was designed to support women trying to access WIC benefits who experienced barriers to access resources they felt were important. The program tracked WIC enrollments and retention over time while creating direct feedback channels through which community health workers could work directly with patients to collect and document relevant stories about the barriers women experienced during the application process. The initiative yielded important learning that has fueled changes in WIC policy implementation, both at local WIC sites and in broader statewide considerations – including a new policy that no longer requires a WIC referral form to be presented for certification, and reserving appointment slots for patient referrals from hospital staff. Having an intimate knowledge of the referral process for each resource in the database enables teams to understand when low-referral resources serve an essential purpose.

Demographic data enables ongoing resource curation and service improvement to fit the needs of patients

Demographic information on patients is important to help identify gaps in the resource database based on who the program is serving and assess how equitably the program is serving different populations. Using individual-level demographic data in addition to neighborhood-level socio-economic indicators is important because population-based measures may miss a substantial number of individuals with unmet basic needs living in areas with higher socio-economic status (Gottlieb et al. 2018; Cottrell EK).

Health Leads-driven programs previously allowed demographic data collection to be optional as a means of shortening the intake process and instead pulled information from completed SDOH screening forms. These questions were often skipped since topics either felt uncomfortable to breach with patients or the navigator deemed them unnecessary if they had an in-person connection with clients.

However, this practice led to significant gaps in the data that prevented a full assessment of ways to better serve certain populations across race or other socioeconomic statuses. To address this issue, our organization changed the workflow to make demographic entries required during intake, while still providing options to opt out such as "worker did not ask" and "client declined to state", updated categories to reflect best practices (HHS Implementation Guidance on Data Collection Standards for Race, Ethnicity, Sex, Primary Language, and Disability Status; Pew Research ; apiahf.org) and provided training to navigators on how to accurately collect this data. This change led to improvements in resource database curation. For example, collecting preferred language data enabled our New York program to advocate for more translation resources within the clinic and identify resources that offered languages other than English or Spanish. Similarly, when working with a Boston-based hospital,we learned that resource coordinators had to either interpret for their clients at the CBOs, translate paperwork, or use the hospital's interpretation services so clients could access the resource. Essentially, they were leveraging the health system's resources to fill a language access gap among underfunded CBOs. We strongly recommended that in the future they disaggregate their referral and navigation data by race, ethnicity, and language so they can better understand and plan for this type of demand/capacity needs.

Population-level data can be used to inform resource database management. City or county health department or census-level data such as BRFSS or American Community Survey can also be overlaid with resource location to identify how closely the resources in a region align with the population-level needs, gaps in the resource landscape or patterns in barriers to access, such as distance between a population and resource or transportation routes.

Population-level data can also be used to identify subpopulations whose needs need to be prioritized and reflected within the database. We've heard from our partners around the country an interest in using demographic data and population-level metrics in combination with resource referral data to make improvements in serving individuals and communities, and to advocate for increased or better-tailored resources. We anticipate working with our partners to develop innovative ways of combining and using these data types in the near future.

The level of geographic granularity is important to consider when interpreting population data. In cities, there can be large variation block to block which is lost when looking at the zip code or county level. It is also important to interpret population-level data with an understanding that federal surveys, such as the Census, American Community Survey or BRFSS, historically have not collected data from a representative sample for many populations, such as BIPOC, children under 5, undocumented or low income households, thus these populations are underrepresented in these surveys (Urban Institute).

Strong relationships and communication processes are key to sharing the information needed to drive effective resource referrals

Intentional partnerships between health systems and community-based organizations (CBOs) and co-locating health care and essential resources greatly enhances the resource connection process. Often clinics providing resource navigation services do not communicate directly with the community resources to which they refer patients. In contrast, one of our Boston-based programs in a pediatrics clinic partnered with Cradles to Crayons (C2C), a Boston-based non-profit organization that provides clothing, toys, and school supplies to low-income and unhoused children. The goal of the partnership was to establish a streamlined process to improve families' access to CRCs' resources. Rather than sending patients to the C2C site, which would add an additional barrier for patients, C2C created a portal where navigators input the resource recipients' information such as their age, clothing size, and item preferences, to make the process faster and more efficient. When the package was ready, patients could pick up their children's clothing package at their convenience. By coordinating an in-house pick up process, Health Leads helped to bolster accessibility and efficiency in resource connection.

At one point, this resource became so popular that C2C felt they were over capacity. To solve this problem, Health Leads and Cradles to Crayons agreed on a set amount of referral allowances per month, which allowed C2C to work within their capacity. Due to this collaborative process, Cradles to Crayons is approached strategically based on the volume and informed navigators can add this referral after exploring other local options. Without communicating, this capacity issue may have never come to the clinic's attention, meaning patients may have been referred to an organization that could not meet their needs.

With the advent of CIEs and other shared data systems, these communication and coordination pathways can begin to be integrated into technology platforms, further supporting these collaborative relationships between health systems and community resources. For example, Rogue Health in South Central Oregon is an FQHC that partners with six community-based organizations to form the Community Hub. Together they increase cross-sector collaboration in support of community members' access to essential resources and their overall health by utilizing a multi-agency, shared, closed-loop software platform for the documentation and tracking of referrals among Hub partners. By establishing a system where individuals, families and service providers all feel a greater sense of belonging, community members are better equipped to access the resources they need to be healthy (Rogue Health - No Wrong Door to Essential Resources, Health Leads).

Looking to the Future: Community-Driven Resource Database Use

Connecting people to resources involves more than access to a searchable database. We have found that having a deep understanding of your patient population and community resources and strong communication pathways are essential to successful implementation and use of resource databases. These learnings are a foundational piece of managing resource databases and can be implemented with current platforms; however, with an eye to the future, where we envision stronger coordinated care across systems of health and shared power between communities and systems, we recommend to continue building on this foundation.

These learnings suggest that the future of resource database design should center on technology and solutions that strengthen pathways for coordination and communication between health care, community resources and community members. The role of community resources, patients, and collaboration in these examples demonstrates that developing pathways for community-driven resource curation will lead to the continued improvement of resource database quality, thereby improving the overall health of communities.

As health systems continue to learn and improve resource database practices, they should also advocate for three practices that will start to create stronger pathways for shared power and health equity:

1. Keep community resource data up to date and with the highest quality information by influencing and shepherding refinements in existing organizational processes to better enable cross-agency collaboration and resource data sharing (Sanchez-Cruz A 2019; Gravity Project).

2. Enable stronger coordination between community resource providers and clinic-based SDOH referral services through creating bi-directional communication pathways and developing a strong case for social services and community based organizations to fully engage in these programs and the technology behind them (Health Leads et al. 2018).

3. Integrate community voice into community data-sharing programs by exploring best practices and new models for sharing data ownership and access with community (UCSF Center for Vulnerable Populations, What is CIE?)

Across sectors, the COVID-19 pandemic has illustrated the challenges and urgency of having accurate, timely data to support public health and underscored the wide gaps in health equity across racial groups in the US. As we continue to work on innovative solutions to these problems by adopting new technology platforms and improving data driven decision making, is critical to consider the context behind the numbers.

ABOUT HEALTH LEADS

Health Leads is a national non-profit organization working toward a vision of health, well-being and dignity for every person in every community. For over two decades, we've worked closely with hospitals and clinics to connect people to essentials like food, housing and transportation alongside medical care.

Today, we're partnering with local organizations and communities to address systemic causes of inequity and disease — removing the barriers that keep people from identifying, accessing and choosing the resources everyone needs to be healthy.

For more information visit www.healthleadsusa.org or email info@healthleadsusa.org.

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