211 AND THE SOCIAL DETERMINANTS OF HEALTH

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INTRODUCTION

Today, many health experts promote the importance of identifying patients' Social Determinants of Health (SDOH) and linking them to social services to effectively manage their health conditions and to improve health outcomes. 211 Centers play a key role in connecting people to services to address unmet needs as well as opportunities to partner across multiple sectors to address those needs. However, the level of understanding and participation in SDOH initiatives varies greatly across our system. Multiple 211 Centers have been actively engaged in SDOH work for nearly 20 years while others may be early in their implementation and understanding on how SDOH impacts a person's overall well-being.

The intent of this document is to help standardize that understanding and implementation and examine the role 211 Centers can play in that work in addressing social needs from different sectors of society. Practitioners will learn simple, concrete things that can be done to standardize and integrate SDOH into their work and leaders will gain an understanding of how integrating SDOH is mission-centric, opens avenues of partnership, and creates community impact.

SOCIAL NEEDS AND SDOH

What are the social determinants of health, social risks, and social needs?

Over the past several decades, a large amount of research has documented that our environment and our living conditions influence our health more than the medical care we receive. Experts estimate that as much as 80% of the modifiable factors that determine an individual's health are separate from health care (see figure below). Examples include:

- Availability of resources to meet daily needs (e.g., safe housing and availability of food markets);
- Access to educational, economic, and job opportunities, access to health care, socioeconomic conditions (e.g., concentrated poverty and the stressful conditions that accompany it);
- Physical determinants such as natural environment and green space, housing, and community design;
- Physical barriers, especially for people with disabilities.

These factors shape the behaviors we engage in, including our eating and exercise habits, opportunities to access affordable healthy food, safe places to exercise, and our drug, alcohol and tobacco use. Together those non-medical factors have more impact on our health than our health care. In turn, our health can impact our ability to lead a thriving life.

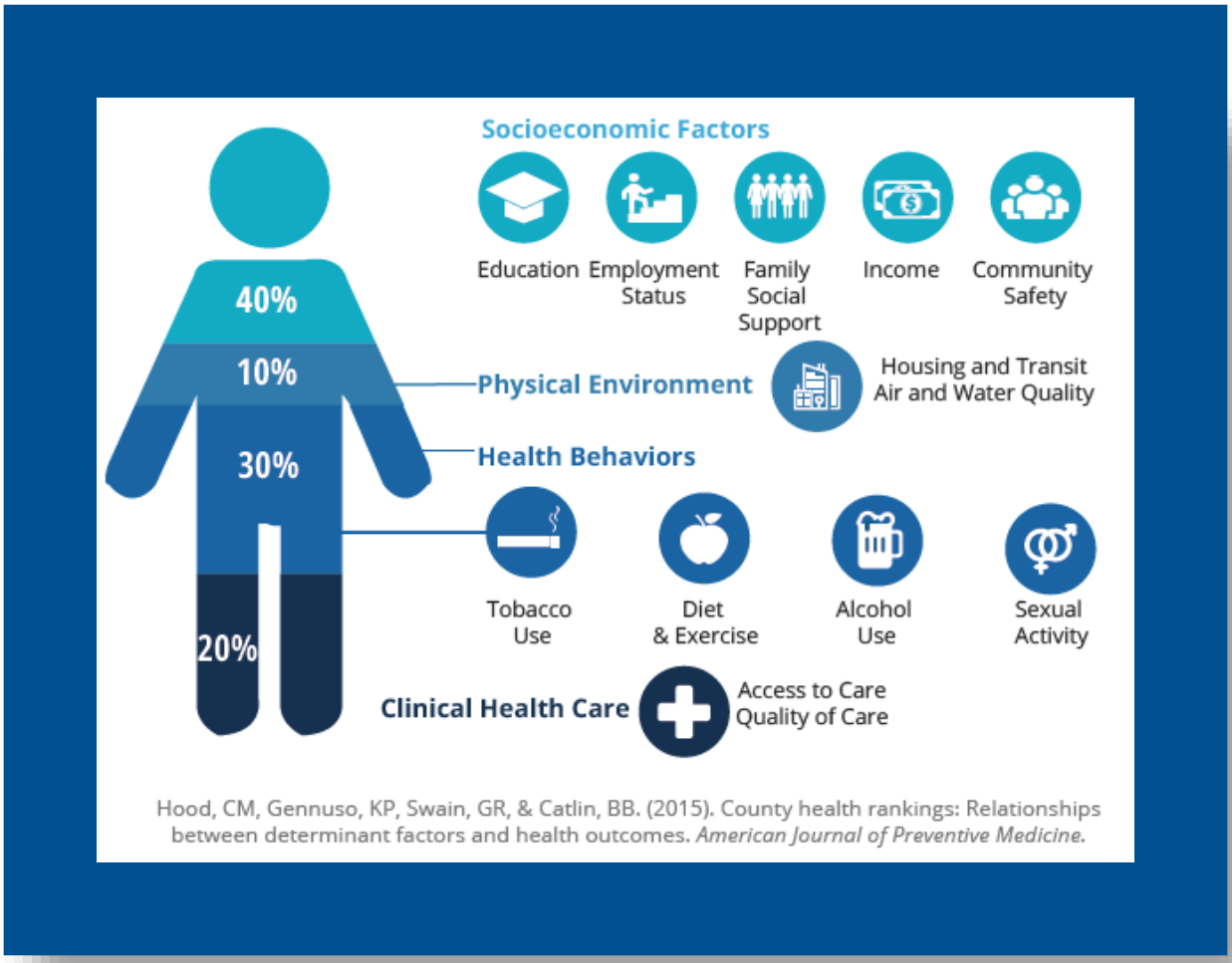


Figure 1 - Modifiable factors that affect our health[i].

These non-medical, non-biological, and non-behavioral factors are called the social determinants of health, defined by the World Health Organization as the conditions in which people are born, grow, live, work and age. SDOH are, in turn, shaped by the societal distribution of money, power and resources. Unequal distribution of these resources means that the SDOH affect people and communities in unequal and unfair ways, generating health inequities, which are unfair and avoidable differences in health status[ii].

The following figure demonstrates the SDOH and how spheres of influence interact with those determinates which are represented by the yellow, green, and purple bands of this figure.

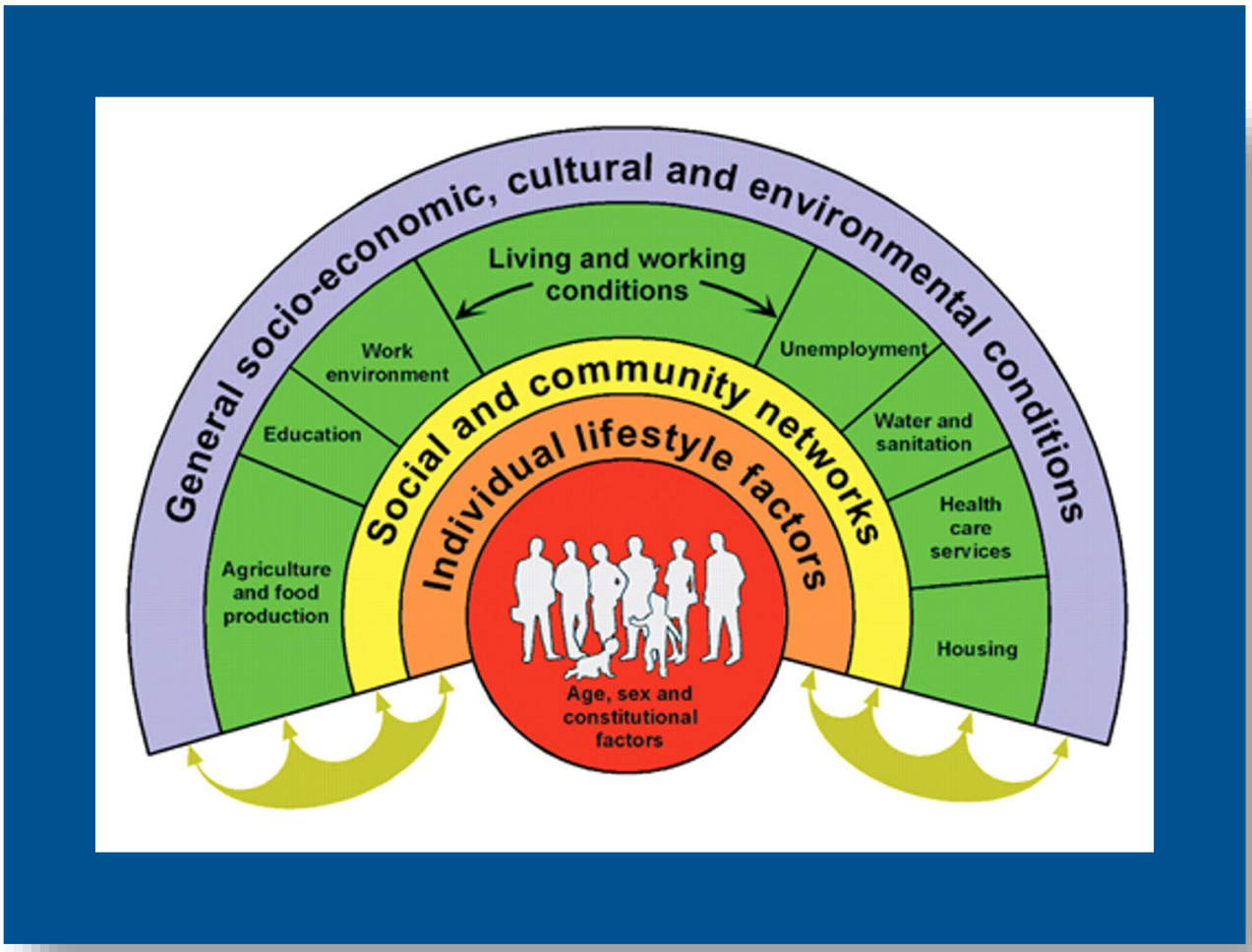


Figure 2 - People's health and wellbeing are affected by different spheres of influence that interact with each other[iii].

How do we understand the interplay of the different levels of influences on health? One parable, often used in public health, begins with a stream. People fall in and are carried down the stream of social and health risks, swept up in the currents of harmful policies, adverse environments, and everyday obstacles. By the time they are pulled from the stream and arrive in the emergency department, they may be drowning. In this analogy, medical professionals are jumping in to save those who are drowning. What could we do to prevent them from falling into the stream in the first place? When we look upstream, we can find opportunities to intervene at multiple levels to promote people's health and wellbeing and foster environments in which they can live full, thriving lives.

Figure 3 - Understanding Social Determinants and Social Needs[iv]

The figure above distinguishes between community conditions (SDOH) and individuals' social risks[v]. As an example, the community condition may be a food desert, an area in which it is difficult to buy affordable or good-quality fresh food, manifesting as food insecurity. Likewise, the lack of local affordable housing policies to protect low-income tenants may be visible at the individual level as multiple evictions. The further upstream you go, the more you are trying to

prevent people from experiencing any harm in the first place. At the same time, you have the capacity to act in ways that affect more people.

Those working in this field are also starting to distinguish between social *risks*, of which there can be many operating simultaneously in a person's life, and social *needs*, which take into account what the person prioritizes as the most pressing risk they face and where they are requesting assistance[vi]. In either case, working with individuals on their social risks or social needs is relatively downstream work. The risk of focusing exclusively on social needs is addressing the *consequences* of adversity over and over without preventing people from experiencing adversity in the first place.

To most of us working in the 211 world, this is not news. 211 has been working both upstream and downstream of health care since its inception, providing crucial, timely information and referrals for social needs. However, the connection between the services provided by 211 and the health outcomes of patients, communities, and populations has yet to be broadly articulated.

How is the Healthcare Sector responding?

Within the healthcare system, patients who experience more social needs like food insecurity, housing instability and lack of quality, affordable childcare have worse outcomes. These outcomes include, but are not limited to, the following:

- Stress
- Sleep problems
- Mental health conditions
- Physical health conditions
- Poorer management of chronic diseases
- Missed and unfilled prescriptions
- Missed doctor's appointments
- Fewer preventive behaviors
- More risk behaviors
- Cognitive decline
- Fewer healthy days
- Poorer self-rated health
- Higher health care cost
- Higher rates of death

In short, patients with unmet social needs tend to be sicker, visit the ER more frequently and cost more to treat. The novel coronavirus 2019 (COVID-19) pandemic has further impacted SDOH services and worsened health outcomes of vulnerable populations. How health services are funded has also had a significant influence on healthcare's interest in addressing SDOH, even though research shows it has a larger impact on health than medical care alone, health spending

is not well aligned with this knowledge. As highlighted in the figure below, 90% of our national health expenditures are spent on medical care, which is estimated to account for only 6% of what makes us healthy.

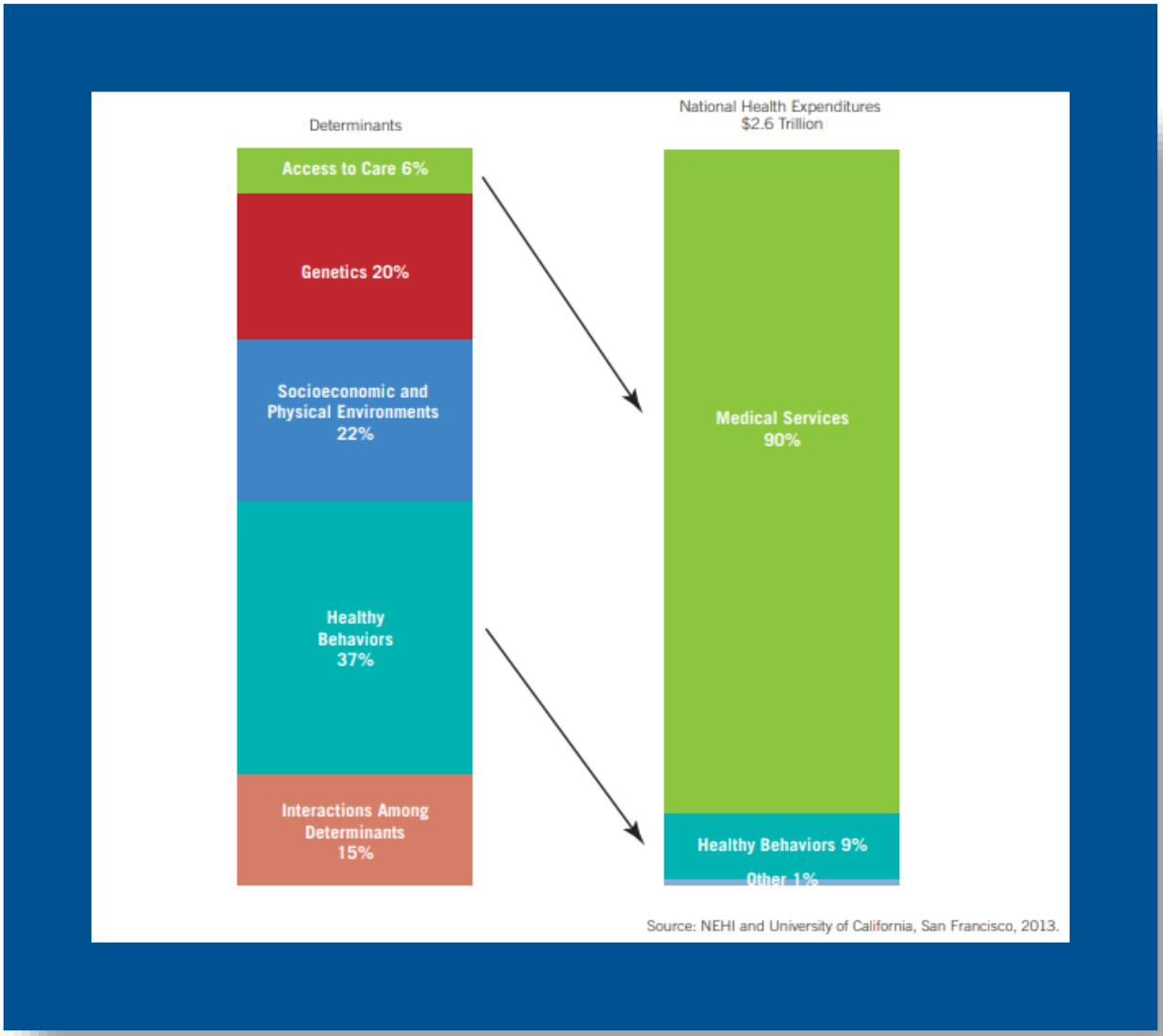


Figure 4 - The spending mismatch: Determinants vs. Expenditures[vii]

This is especially problematic given that there is evidence that increased social spending can pay health dividends. A 2016 study found that states with higher ratios of social service spending outperformed states that had a lower social-to-health spending ratio when it came to health outcomes related to obesity, asthma, mental health, cancer, myocardial infarction, and type 2 diabetes[viii].

At the same time as knowledge about SDOH has solidified, national health care payment reforms are transforming how hospitals and health systems are being paid for services. Value-based care initiatives in Medicare and Medicaid are moving payments from a fee-for-service model to a capitation-based model. This incentivizes systems to improve patients' health and reduce avoidable health care utilization. In this new payment environment, healthcare organizations, especially those serving economically vulnerable populations that are affected most by unmet social needs, have realized that addressing the social needs can help them achieve their health improvement and cost-containment goals, while generating more revenue.

As a result, the healthcare sector is increasingly engaged in a range of efforts to understand and address the social needs of their patients and plan members. A recent report by the National Academies of Science, Engineering, and Medicine summarized five types of roles for health sector organizations in integrating social needs[ix]:

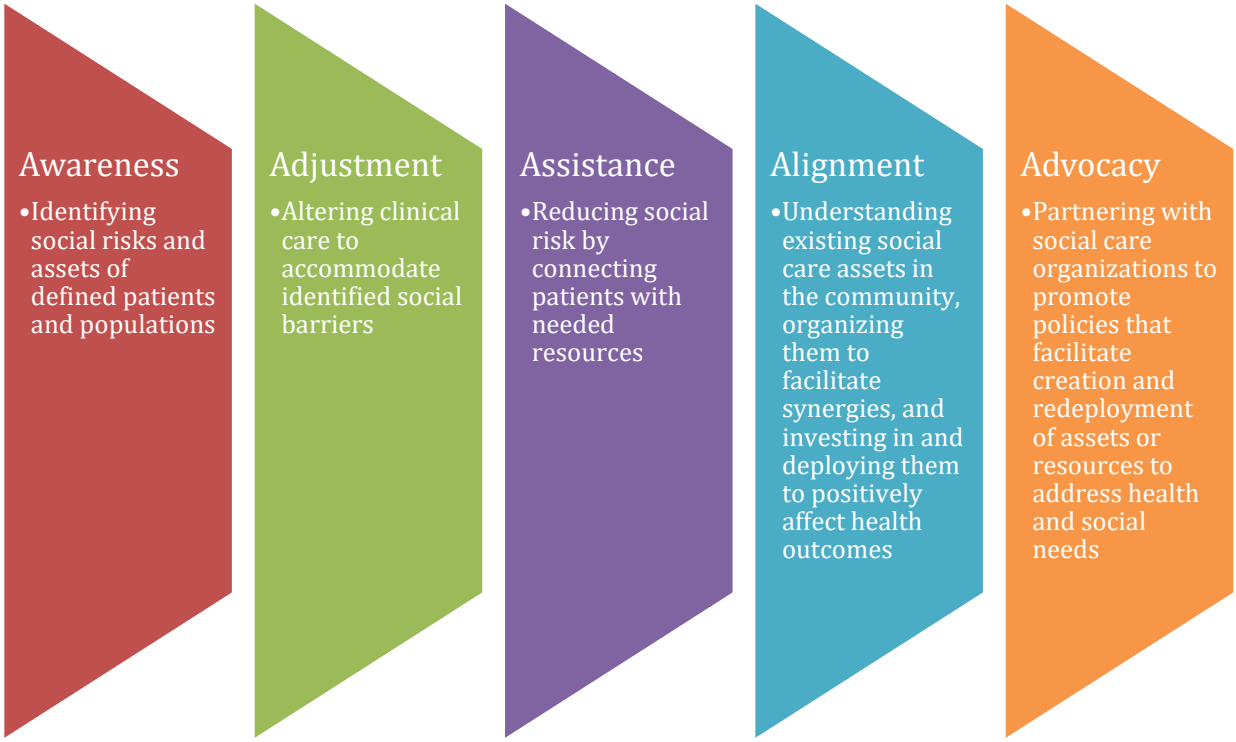


Figure 5 - Types of Roles

Although healthcare organizations are actively experimenting with a wide range of solutions across these five domains, the most-used approaches to date have been awareness and assistance. In the language of 211, this approach is quite familiar: screening and referral. Within

the healthcare sector this approach is sometimes referred to as a "linkage intervention" because it seeks to connect patients to community organizations outside the health system that might be able to assist with needed services. In a 2018 national survey, over 90% of healthcare organizations serving low-income patients reported using this approach[x]. As applied by healthcare organizations, linkage interventions have three main components:

- Screening
- Referral
- Support

Currently, there are no universally accepted or validated standards when it comes to administering healthcare-based screening for social risks or social needs. A variety of screening tools have been developed. Some of the most widely used include the following:

- Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE), developed specifically for use in community health centers
- The Accountable Health Communities Health-Related Social Needs Screening Tool, developed by the Centers for Medicare and Medicaid Services (CMS) as part of an intervention model
- The Health Leads Social Needs Screening tool[xi].

To standardize the social needs data that are collected from patients nationally, several of these screening tools have been recommended for national use. All the tools assess needs in at least five core areas:

1. Housing
2. Food
3. Transportation
4. Utility assistance
5. Personal safety.

Some screening tools also assess needs related to childcare, education, employment, neighborhood safety and health care access. These domains are closely aligned with those assessed by 211s that administer social needs screening to callers. For example, 211 San Diego's screening tool assesses housing, food/nutrition, primary care, health management, social and community connections, activities of daily living, criminal/legal, financial, transportation, personal/household, utility/technology, safety/disaster, and education.

Social needs screening in clinical health settings is implemented in many ways across the country by using:

- Different modalities (e.g., paper, tablet computer, verbally)
- Different staff (e.g., social workers, community health workers, nurses, medical assistants)
- During different points in a clinic encounter (e.g., waiting room, exam room, post-visit).

Research has shown that patients find social needs screening to be acceptable and don't have strong preferences for screening being administered in a particular modality, setting, or point in the clinical encounter, though there is some indication that self-administered screening tools seem to yield higher disclosure of needs[xii]. However, studies also find that patients desire and expect a caring, empathetic approach when screening for social needs[xiii].

When the screening process identifies unmet social needs, referrals are made to internal programs, such as hospital-based fresh food pharmacies or medical-legal partnerships, where available. They can also be made to external local service agencies such as homeless shelters, food banks, utility payment assistance programs or vocational programs that may be able to provide the needed assistance. There are many models for executing referrals. Some healthcare organizations, especially those with social work staff or community resource desks, have compiled and maintain their own printed resource inventories and will either complete warm handoffs by phone or provide lists of resources for patients to contact on their own. Other organizations pay to access an online resource inventory that is compiled and maintained by commercial vendors who in many cases also offer the functionality to send electronic referrals to agencies through a resource platform[xiv]. Lastly, some rely on publicly available resource inventories such as 211 or Community Information Exchanges (more on these below).

In some instances, commonly involving patients who have complex, poorly managed or costly health conditions, the patient may also receive special support services to help access assistance addressing social needs. This often takes the form of a case manager, community health worker or social needs navigator, who works with, and on behalf of, the patient to secure needed assistance. This support can be provided in person or by phone. This practice also has parallels within some 211s, which provide "Level 3" or "Navigation services" to some callers, often as part of special contracts executed in collaboration with external partners, including some from the healthcare sector.

Apples to Apples: efforts to standardize coding for social needs:

There are long-standing efforts in the human service sector and more recently the healthcare sector to standardize the way social needs and social services are captured in their respective IT systems. The LA211/AIRS Taxonomy is the pre-eminent classification system for human services, having evolved over the past 20 years to encompass over 9000 fully defined terms to describe the variety of services provided. In the healthcare sector, efforts are also underway to standardize coding for social risks and social interventions in the medical coding vocabularies. One such effort is the Gravity Project, an open, national collaborative that seeks to identify coded data elements and associated value sets to represent social needs in four domains (food insecurity, housing instability, housing quality, and transportation) documented in electronic health records (EHRs) across four clinical activities: screening, diagnosis, planning, and interventions.

While the Gravity Project's focus is on standards and value sets developed for LOINC, SNOMED and CPT, some of the medical coding vocabularies found in Electronic Health Record (EHR) systems, the long-term vision is for these standards to be mutually intelligible for other sectors who will use the data to provide referrals and services, including 211s. Likewise, for resource directory data, the Open Referral Initiative is developing common formats and open platforms for the sharing of community resource directory data — i.e., information about the health, human and social services that are available to people in need. The Association of Information and Referrals Systems (AIRS) has recommended the adoption of Open Referral's Human Service Data Specification and API protocols as methods of establishing interoperability among 211 resource databases and associated technologies such as EHRs

Where and how does 211 fit in?

From a healthcare perspective, 211 has at least three assets that are directly relevant to addressing social needs for health improvement.

1. **Resource databases that 211s have compiled and maintain**. To the extent that these are comprehensive and current, they may have value to health organizations, particularly those that do not have some equivalent to it already. Many healthcare organizations

contract with commercial vendors for resource database services, some of which include resources scraped from 211 websites.

2. **211 data on social needs within a community.** By capturing every social need expressed by callers to 211 and visitors to 211 websites, 211 is effectively the nation's leading surveillance system for social needs. 211s possess highly unique data that documents not only the level of demand for a wide range of social need services, but also how those needs are distributed geographically, how they change over time, and in many instances, who they affect most. Such data are invaluable for identifying gaps in service, community planning and integrating the "alignment" and "advocacy" roles the healthcare sector seeks to fulfill, as outlined earlier.
3. **211s navigation expertise.** An increasing number of 211s provide more intensive case management, or navigation, to help callers secure the assistance they need from community organizations. Such support is likely most valuable to highly vulnerable 211 callers who might lack the resources and connections to act on social needs referrals on their own. These case management or navigation services are not unlike those that many healthcare organizations currently contract for.

The value of these assets to healthcare organizations depends on a number of factors, including whether they have access to alternatives they perceive as comparable, whether 211 resources and data are easily accessible, and whether 211s are willing and able to establish formal partnerships and sharing agreements with healthcare organizations. In addition, while the assets of any individual 211 may hold some value to a healthcare organization that serves the same community, region or state, the value of 211 assets will be maximized when these databases are linked and aggregated across all 211s.

Besides healthcare, what other sectors might partner with 211s?

Web analytics from *211 Counts*, an online data dashboard service used by 211s in 33 states, confirms that healthcare organizations have been one of the sectors most interested in 211 data over the last five years. In the three year period from 2014 to 2017, use of 211 social needs data by healthcare organizations more than tripled, and now accounts for roughly one in six identifiable users of *211 Counts*. These include the sectors listed below:

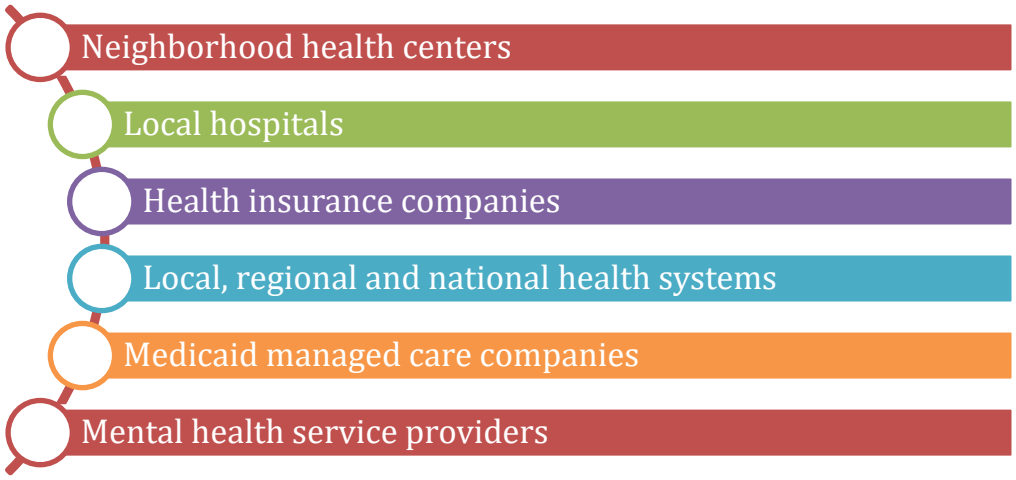


Figure 6 - Identifiable users

Although the exact reasons for these healthcare organizations accessing 211 social needs data cannot be known with certainty, a series of in-depth interviews with 18 healthcare leaders conducted in 2018 provides some clues. In the interviews, four distinct "use cases" emerged for healthcare accessing 211 data:

1. Support their efforts to prepare a Community Health Needs Assessment (CHNA), a federal triennial requirement for all not-for-profit healthcare organizations
2. Help them evaluate the effectiveness of their efforts to address SDOH
3. Identify social service agencies in their communities with whom they might partner to address SDOH
4. Convey SDOH priorities to healthcare executives and board members[xv].

But healthcare is not the only sector actively seeking 211 data, or even the most common user group. That distinction belongs to government agencies. Among all identifiable users of 211 social needs data, nearly one quarter represent local, state or federal government agencies involved in aging, children and families, corrections, disability, education, health, housing, income and revenue, insurance, justice, labor, law enforcement, libraries and information services, public health, security, social services, and others. Viewers also include the offices of many elected officials.

How might government agencies use 211 data on social needs and SDOH?

- Those responsible for planning, budgeting, and administering programs like SNAP or unemployment might use these data to help with modeling and projections or tracking demand.
- Agencies such as FEMA value the real-time data 211s provide on community needs in the lead up to and aftermath of natural disasters.
- Elected officials and their staff members may use 211 data to help understand the life experiences and needs of their constituents.

Many 211s already have a history of collaboration with state and local government agencies, and even some federal agencies, such as the Centers for Disease Control and Prevention (CDC) and FEMA for national disasters or pandemics like COVID-19. These can serve as models for new partnerships aimed at understanding and addressing SDOH in communities.

Another sector, accounting for nearly as much use of *211 Counts* as healthcare, is education. Education sector users are split roughly evenly among institutes of higher education and providers of K-12 public education. The former group likely appreciates 211 social needs data for research and student learning purposes. The latter, which includes individual schools, school districts, and departments of education, stand to gain valuable information about the social needs of families within their geographic boundaries, which could in turn shape classroom, school and system-level responses and support to address social needs that might impede children's learning if left unaddressed.

Opportunities for 211s to partner with both Higher Ed and K-12 systems is advancing beyond just social needs data. As healthcare is focused on SDOH, education is similarly focused on nonacademic student supports. Nonacademic student supports are activities and programs that are designed to encourage academic success but that do not deal directly with academic content[xvi]. In 2015, a Wisconsin HOPE Lab study revealed that 52 percent of college students were food insecure, with 20 percent qualifying as hungry, and 52 percent were housing insecure, including 13 percent who were homeless[xvii]. The National Center for Education Statistics reported in 2014-2015 that 51.8 percent of K-12 students were eligible for Free and Reduced Lunch[xviii]. Students' learning and development is impacted by more than just the quality of the experiences they have in school. Their progress is also impacted by the experiences they have at home and in

the community, the relationships or partnerships between individuals in these different settings, and the policies, cultural norms and values that govern interactions in these spaces[xix].

211s create value because they have long established cross-sector relationships with most service providers through their work in building and maintaining community databases of resources and services and providing live assistance for persons who need more in-depth service navigation.

Others accessing 211 data include organizations in the financial, retail, insurance and social service sectors. In short, there appears to be a wide range of potential partners for 211 collaborations related to, and beyond, social needs.

What should 211's role be and why is it important?

A key aspect for health systems in addressing SDOH is referring patients who have been screened for SDOH or social needs to community resources. But how do health providers identify the right resource for the patient? How do health providers know which community-based organizations (CBOs) are the most appropriate? Once a patient is referred, how do they track whether a successful referral was achieved? These are questions that healthcare organizations are trying to answer.

Those in the 211 system know and can provide answers to these questions. Not everyone within the health system, or higher up within the human services sphere, may know about 211 – but the most vulnerable people in the communities who dial 211 daily for assistance do. They are calling 211s regularly about food, utility assistance, rent assistance, financial help, prescription assistance, and more. 211s provide a very specific role in addressing social needs by providing an easy to access phone number, but 211s also maintain extensive databases of community resource information to refer callers to or provide it publicly through searchable online resource directories.

211 is guided by standards established by the Alliance of Information and Referral Systems (AIRS), which ensures that 211s maintain accurate up to date resource data. To meet these standards, 211s invest time and effort in data validation and curation by employing teams of AIRS certified data managers and curators. 211s also leverage their relationships with community-

based service providers, by providing them tools and ongoing communications to update their organizations resource information. In a more recent trend, 211s are exchanging their resource data through community partnerships that can provide shared updated, comprehensive, and high-quality resource data for resource directories and care coordination platforms without the duplication of effort and costs of maintaining separate community resource databases.

As a service that addresses SDOH, and interest from the healthcare system to partner around resource coordination, 211s have gained more recognition for their efforts in partnering with healthcare systems to provide community resource data and assisting with coordinating social need referrals. 211s such as San Diego 211, Washington 211, Michigan 211, and NC 211 are just a few 211s who are engaging in SDOH partnerships that are generating additional partnerships and generating revenue to support a service that is chronically underfunded:

211 San Diego is working with social service and health care providers to improve care coordination through a Community Information Exchange (CIE):

> *Connecting patients to needed social services can be challenging for health care providers, who are generally focused on clinical care. Additionally, they are often neither aware of the full range of community services nor have the capacity to refer and follow up with patients. Recognizing that social factors significantly impact health outcomes and spending, 211 San Diego developed the Community Information Exchange (CIE), a cloud-based platform that enables participating providers to better understand a client's interactions with health and community services.*
>
> *The CIE includes a social risk assessment tool, provides alerts, and facilitates connections across multiple agencies and providers. The rich client information collected through the CIE is also used to monitor community trends and address local challenges. 211 San Diego is actively engaging community partners to participate in the CIE in the hopes of improving care coordination and health outcomes for at-risk patients throughout San Diego.*

Central Michigan 211, in collaboration with the Michigan Department of Health and Human Services/CMS State Innovation Model, Jackson County Health Network and the Michigan

Institute for Clinical & Health Research, created the Jackson Care Hub. The Jackson Care Hub is like a community information exchange but developed independently of 211 San Diego.

> *The Jackson Care HUB is a screening system inside a Care Coordination platform that screens patients/callers/community members on 10 SDOH domains. If an individual has a positive screen in a domain, they are offered either a Community Navigator through 211 or a direct electronic referral to a partnering agency. The agency or navigator receives the referral, follows up with the individual, and tracks their progress (agency and individual) in the HUB system.*

At the national level, through a partnership with 211s and the National 211 Office at United Way Worldwide, a 211 National Resource Data Platform has been developed. The National 211 Data Platform has the potential to link all 211 resource databases together to provide standardization in data structure and exchange at a national level. The implications for this level of standardization could provide opportunities for national level SDOH partnerships, increase the impact of 211 during national disasters, impact social policy and create new funding opportunities to support and expand 211 services in communities.

Social needs data

As previously mentioned, another value that 211 provides is in the collection and dissemination of social needs data. 211 social needs data is unique to the 211 system and acts as a social barometer, providing a community picture of emerging needs and gaps in services. 211 needs data can support collaboration on community goals, inform government decision-making, help in identifying where to invest resources, assist community partners to advocate for people in need, and measure community change.

Community needs data is of great value to healthcare as well as other social service agencies who are required to conduct community health assessments. Community health assessments, also known as a Community Health Needs Assessment (CHNA), gives organizations comprehensive information about the community's current health status, needs, and issues. In turn, this information can inform the development of a community health improvement plan, justifying how and where resources should be allocated to best meet community needs.

The Affordable Care Act requires nonprofit hospitals and clinics to complete a CHNA process every three years. While CHNAs are a recent requirement, community health assessments (CHAs) have long been used as a tool by hospitals, public health departments, Federally Qualified Health Centers, Head Start, Community Action Agencies and other social service organizations to identify key community and health related concerns. This creates additional opportunities for 211's to partner with community stakeholders to report on unmet needs and service demands.

Over 25 million people in the United States dial 211 annually for help with basic needs like food and shelter or emergency services. Through a partnership with the Health Communication Research Laboratory at Washington University in St. Louis and Health Communication Impact (HCI), 211s can report caller data through 2-1-1 Counts an online interactive data dashboard. 2-1-1 Counts is the first tool to provide real-time, searchable, and visual presentations of data from 2-1-1 call centers across the nation. More recently, HCI has developed "Calls to Action", which are custom community need assessment reports encompassing both 211 needs data with Census data.

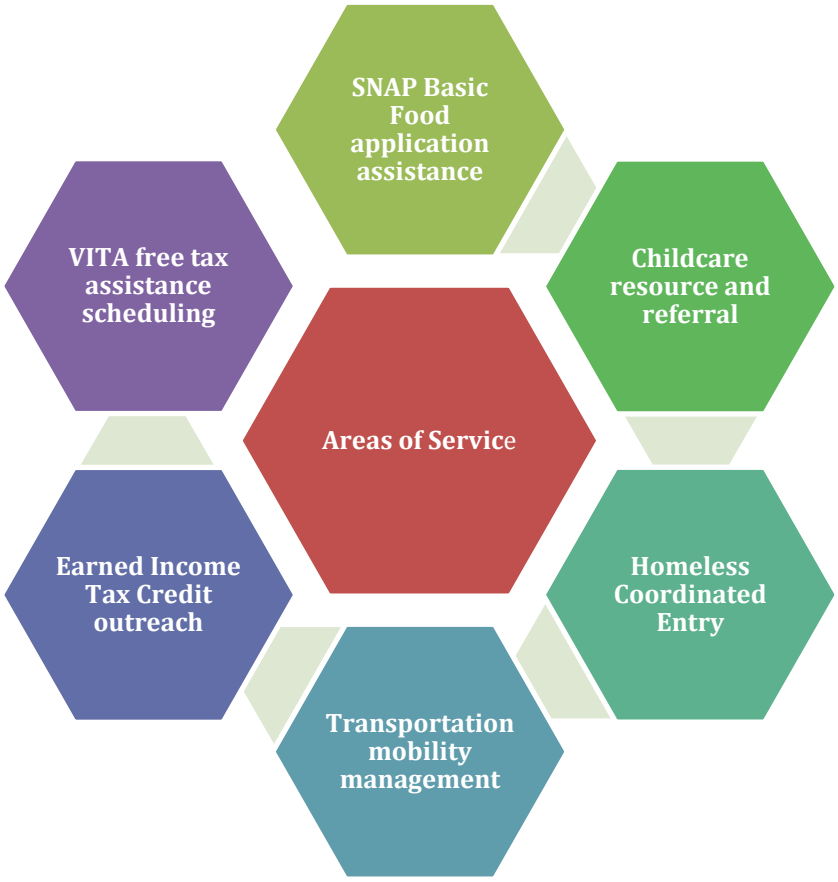
Many state 211s continue to serve as an active partner with State Departments of Health in the protracted battle against COVID-19. In addition to handling calls into 211 operated statewide COVID-19 hotlines, 211s have been a key partner in scheduling vaccine appointments, assisting with contract tracing communication, updating vaccine records in state vaccine record verification systems as well as providing answers and guidance to caller questions. Data collected through COVID Line interactions led to development of Focus-19 another 211 needs data project with the research scientists at the Health Communication Research Laboratory. Focus-19 reports on the social impact of the COVID-19 pandemic. Focus-19 and 2-1-1 Counts scan both 211 and COVID needs data to identify rising trends in communities across the U.S. The goal of the Focus 19 project is to give local leaders strong evidence to act quickly and help American families respond to the pandemic.

211 also tracks and reports data on health and social care inequities. During the COVID Pandemic, 211 Specialists have helped to identify and address vaccine access issues experienced by those without mobile devices, internet access, or technology skills by scheduling appointments online over the phone for vaccine and testing locations. 211's personal approach to working with people individually and recording social needs data,

created the opportunity to identify unseen needs and obstacles that can be addressed to broaden the reach and equity of our human and social service network for persons with digital access barriers.

Navigation Support

Lastly, many 211s provide program enrollment and navigation services that focus on specific services, or areas of service. Examples of this include:



Other specialized services are funded through grants and contracts and may require follow up, client data collection and outcome reporting through closed looped referrals. Whether or not a 211 participates in these types of services, a precedent has been established within the 211 system that, with proper funding and capacity, 211 can be a full-service partner with healthcare

and government to provide value-based services that contributes to wholistic care and better health outcomes.

CONCLUSION

For 211 to be successful in local and national SDOH efforts, it needs to be at the table with the healthcare system as a strategic partner. 211 is an expert on the SDOH in local communities and can provide direction to the healthcare sector on how to effectively refer patients to social service organizations. 211 can also facilitate trust and partnerships between healthcare and community-based organizations, encouraging investment from healthcare in the existing community safety net instead of recreating safety nets.

211 can also play a greater role in the national healthcare system by providing both resource and needs data. 211 can support care coordination efforts by providing community resource data to community health workers and electronic referral systems. The caller data that 211 collects and reports can act as a surveillance system for social needs at the national and local level helping to determine where to invest public and private dollars to address service gaps. Through efforts such as the 211 National Data Platform, 211s can aggregate their data at a national level and make it more accessible to the healthcare sector.

211 has been engaged in SDOH work since its inception and continues to be a vital service in communities across the country in helping individual's achieve greater health outcomes. Because 211 has an intimate knowledge of community resources, offers a central point of access to social determinants of health referrals, and provides live assistance with compassionate caring Specialists, 211 is uniquely positioned to be a key partner with healthcare to provide whole-person care.

"IT'S THROUGH CURIOSITY AND LOOKING AT OPPORTUNITIES IN NEW WAYS THAT WE'VE ALWAYS MAPPED OUR PATH."

MICHAEL DELL

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Tim Sullivan, National 211 Steering Committee	• SDOH Taskforce Chair, State Director Washington 211
Matthew W. Kreuter, PhD, MPH	• Kahn Family Professor of Public Health and Senior Scientist; Health Communication Research Laboratory; The Brown School; Washington University in St. Louis, MO
Fiona Proctor, RN BScN	• Manager, Health and Community Impact; Community Connection/211 Central East Ontario
Yuri Cartier, MPH	• Research Associate, SIREN (Social Interventions Research and Evaluation Network); Center for Health and Community; University of California San Francisco
Camey Christenson, MSW	• Senior Vice President; 211 San Diego/Imperial & Community Information Exchange

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INFORMATION AND RESOURCES

- SIREN – Social Interventions Research & Evaluation Network - Community Resource Referral Platforms: A Guide for Health Care Organizations. Access at: https://sirenetwork.ucsf.edu/sites/sirenetwork.ucsf.edu/files/wysiwyg/Community-Resource-Referral-Platforms-Guide.pdf
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