LOUISVILLE HEALTHCARE
CEO COUNCIL

LHCC *Discovery Lab* Findings
2020: Social Determinants of Health

Executive Summary

The Louisville Healthcare CEO Council (LHCC) represents healthcare CEOs from across the entire continuum of care. Through our *Discovery Labs* with Council company subject matter experts, we uncovered business challenges and gaps in current solutions relative to Social Determinants of Health (SDoH). This report summarizes hours of interviews with LHCC experts and informs a global call for innovations that enable a systems-approach to addressing barriers associated with SDoH for older adults and innovations that address those barriers for older adults in Black, Minority, and Ethnic communities.

LHCC requests proposals for innovations that enable and promote a systems-level approach to addressing barriers related to social determinants of health. You can find our short application (via the F6S platform) here. Alternatively, you may submit your company's executive summary to info@LHCCinc.com. **The deadline to apply is July 28h, 2020.**

Six finalists will be selected to present at our virtual CareTech2.0 pitch in September 2020. Winners and other selected innovations will be awarded paid pilots with LHCC member companies. Ideal innovations are product-ready.

Key Observations:

- For LHCC companies, the importance of and ability to impact SDoH depends on where they sit in the healthcare system.
- One of the major barriers to innovation to address SDoH is a difficulty in measuring a return on investment (ROI) in that innovation, especially (but not exclusively) on the side of the provider.
- A systems approach is required to effectively assess and address SDoH in the context in which they arise.

Important Opportunities for Innovation

- Automation and objectivity in assessing and alerting about SDoH needs
- Matching person-centered needs to resources
- Real-time tracking of consumer interactions with the healthcare system
- Consumer engagement
- Assessing and addressing Healthcare workforce SDoH needs

Criteria for Evaluating Proposals:

- Clarity around mechanisms for evaluating outcomes.
- Ability to promote and enable a systems approach through shared responsibility and aligning incentives.

About LHCC

The Louisville Healthcare CEO Council (LHCC) was formed in 2017 to leverage the strengths and assets of its members to address important challenges, particularly those related to an increasing older adult population, that extend beyond the scope of any one single member company. LHCC board members include CEOs from Kindred Healthcare, Humana, Trilogy Health Services, Passport Health Plan, Norton Healthcare, Hosparus Health, Anthem Blue Cross and Blue Shield of Kentucky, Apellis Pharmaceuticals, Signature HealthCARE, Galen College of Nursing, Baptist Health System, and BrightSpring Health Services. These companies are the titans in the industry, collectively representing over 300,000 employees and $100 billion in revenue.

Together, LHCC member companies represent every step along the continuum of care. Never before has a group this powerful united behind a common mission to drive innovation at the systems level. This insight into the real business challenges and barriers that are critical to overcome in confronting a growing older adult demographic in healthcare is unprecedented, and LHCC's core activities use this insight to address specific issues in aging for which innovation is needed.

In seeking to address these challenges within the framework of integrated care across the continuum of care, LHCC's strategic plan includes three interrelated elements:

1. A **Corporate Innovation Center**, a physical space and suite of programs including Discovery Labs, designed to identify individual LHCC member company business challenges to identify gaps in current solutions. Our Corporate Innovation work informs our search for innovations to address these gaps, and it connects innovators to their corporate customers.

2. **Strategic capital deployment** through direct investment in technology development and innovation that addresses the needs identified through the corporate innovation initiatives.

3. An annual **Aging Innovation Global Healthcare Summit (AIGHS)**, which brings innovation thought leaders and experts to Louisville for substantive conversations about

the future of healthcare. AIGHS focuses on CEO-identified priorities related to integrated care delivery.

LHCC's approach to innovation is designed to uncover complex industry pain points at the systems level. Identifying and understanding these gaps equips us to meaningfully engage the innovator community, deploy capital strategically, and convene a gathering of thought leaders and experts for substantive conversations about world-changing approaches to healthcare at AIGHS.

Within this framework, LHCC CEOs collectively identified five pressing healthcare challenges to create a roadmap for organizing LHCC innovation activities. The first focus area, **caregiver engagement and support**, was the topic of LHCC's CareTech in 2019. The report summarizing our findings from a request for information on that subject can be found here, and more information about CareTech 2019 finalists can be found here.

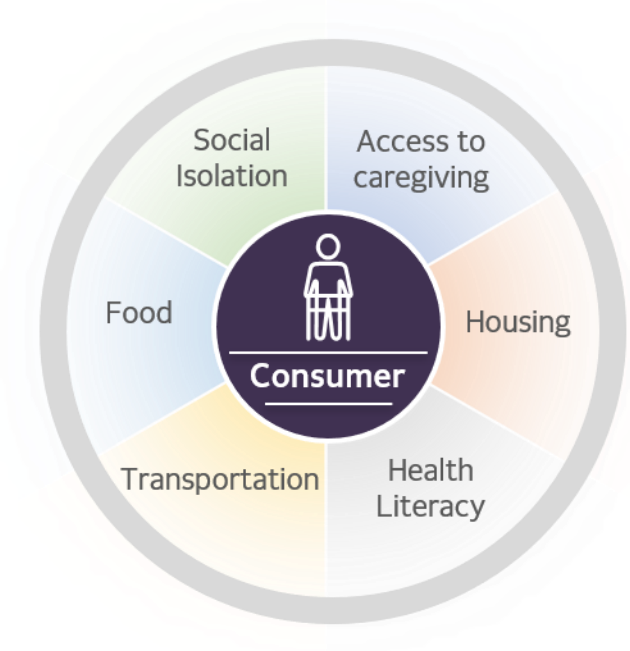
Social Determinants of Health (SDoH) is LHCC's priority area of focus for our innovation activities in 2020 and the subject of this call for innovations. In May of 2020, amid the COVID-19 global pandemic that saw the world socially distanced to the extreme, LHCC and our partner Aging 2.0 released a joint Global Innovation Search specifically addressing social isolation and loneliness. **Social isolation** is often the underpinning for many other social needs and determinants on both the level of the community and the member, since lack of an informal network and resource connectivity is a barrier to meeting those needs, resulting in reduced health and wellbeing.

This report and accompanying call for innovations is for a broader range of solutions addressing SDoH. Both calls for innovation lead to the CareTech Pitch at the AIGH Summit in September 2020.

LHCC Perspective: Social Determinants of Health Defined

SDoH are the conditions in which people are born, grow, live, work, and age, and they contribute to an estimated 80% of health outcomes. SDoH has certainly achieved buzz-phrase status, and its meaning and the importance of emphasizing its true community-wide scope have been addressed elsewhere. Its common use sometimes encompasses individual social needs in addition to the actual social and economic factors that contribute to health outcomes. Generally, LHCC members view SDoH with a broad policy focus on the underlying social and economic conditions that contribute to health while recognizing that the same factors must be addressed on an individual level to connect consumers to small-scale, local, social interventions that provide targeted assistance with their immediate social needs.

We worked with subject matter experts from LHCC companies representative of the entire continuum of care, and the overwhelming consensus was that although meeting individual social needs is an important endeavor, there is a need for system-wide solutions that address these interrelated needs in a more comprehensive way.



Our Process

To better understand LHCC member challenges around SDoH ***as it relates to integrated care delivery across the continuum of care***, we launched ***Discovery Labs***, a tool designed to help identify each LHCC member's priorities and challenges related to social needs and determinants by interviewing their own internal experts. Our Innovation Committee identified key Subject Matter Experts (SMEs) from LHCC member companies to participate in hours of

interviews in group settings and individually, to discuss individual Council company business challenges, barriers to innovation, pain points, and gaps in current solutions relative to SDoH. Through ***Discovery Labs*****,** we uncovered important data that, when viewed collectively from across LHCC and continuum of care, yielded insights into system-wide challenges related to SDoH.

The following is a combined cross-LHCC summary that presents these challenges and gaps from a systems perspective when possible. Anonymized quotes are provided to add important context but are not attributed to any single member company or SME. In the interest of presenting this information in one voice, rather than from the single perspective of either a payor or provider, we refer to the patient/member as the **consumer** in instances where appropriate.

Key observations from LHCC *Discovery Labs*:

For LHCC companies, the importance of and ability to impact SDoH depends on where they sit in the healthcare system. Important factors include: the characteristics of defined consumer populations; where and when SDoH issues are identified for these defined consumer populations; and whether the company is a payor or a provider is critical in understanding and addressing SDoH.

One of the major barriers to innovation to address SDoH is a difficulty in measuring a return on investment (ROI) in that innovation, especially (but not exclusively) on the side of the provider.

> *"I think it's so strange that we spend billions of dollars on antipsychotics, which kill people and result in some of the worst outcomes possible. But on the other hand, giving people good individualized social environments? There is no reimbursement system for that. If we could pay a musician $25 an hour to come in a couple times a week and improve quality of life for our residents, I'd bet we'd need to distribute fewer pills. It would actually save us money, but in the current healthcare system, we don't think that way."*

We heard consistently that absent evidence of an ROI, and absent direct or indirect financial incentives to address SDoH, it is difficult to justify investments to address SDoH. Innovations in the payment system through alternative payment models could promote the type of alignment necessary to address SDoH.

Unsurprisingly, startups/companies providing the most mature SDoH solutions exist in verticals for which there are clear payment models at present, which include transportation, medication management, and more recently, caregiver support. Without clear business cases or a payment model, the organizations most motivated to address SDoH are insurance organizations. For providers, while Managed Medicaid plans have flexibility in addressing SDoH, there is a shortage of sustainable payment models that support the delivery of these types of solutions. As a whole, this makes it difficult for providers to invest in and control for SDoH.

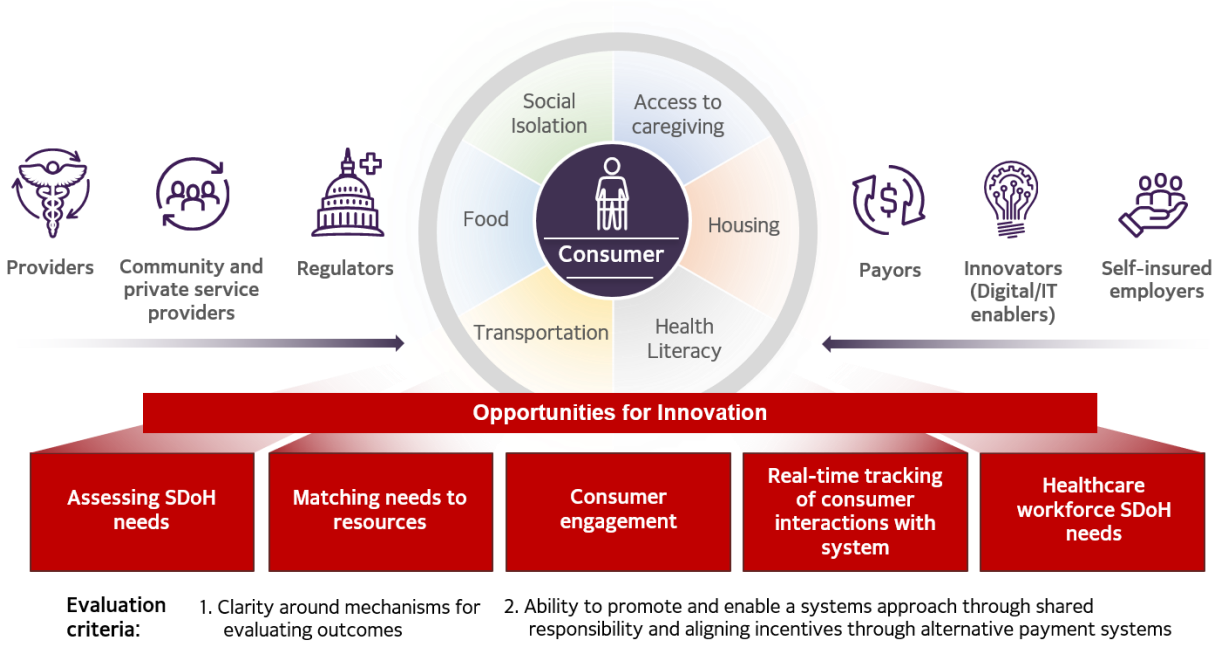
Although it is not always directly quantifiable, one key opportunity is to broaden the definition of ROI to include other kinds of valuable results. SDoH interventions can contribute to an engaged and productive workforce, better net promoter scores, and growth and retention of a consumer base.

A systems approach is required to effectively assess and address SDoH in the context in which they arise. A systems approach recognizes that multiple stakeholders in the healthcare system (providers, payors, and others) need to be connected to community resources (social services, housing, transportation, food, etc.) to effectively identify and prioritize non-medical needs, solutions, and accountability. A systems approach also puts the consumer at the center of identifying and implementing solutions.

> *"I like the concept of overspray. If you wanted a green lawn where I grew up, you had to make sure that the sprinkler system had 100% overspray. And it's the same for this problem. We need the entire system to contribute, because we may be sending someone home from surgery into an unsafe and unclean environment, and that sets them up for failure. So how do we go about developing a common goal for whole person health and not just repair the arm or the mind that was broken?"*

Much of our discussion with LHCC SMEs addressed the need for true system alignment around solving SDoH challenges. Community-based organizations (CBOs), health systems, providers, and health plans need to be able to access and contribute to a consumer's longitudinal health record, for example, so that needs can be recorded, and whether or not those needs were addressed sufficiently can be monitored.

Points of friction sometimes arise when working with CBOs that provide important resources for consumers. They are often small, underfunded, many do not use a digital record system, and some are not fully capable of handling health data. They are not necessarily accustomed to interacting with the healthcare system. There is a large area of opportunity for **enabling CBOs to more fully engage with the system.**



Our Discovery Lab findings underscore the need for a systems-wide approach to addressing SDoH. The opportunities/challenges listed here are all interrelated. Here, we have sliced the gestalt for organizational purposes, but any solution must ultimately address or plug into the system to be viable.

In this context, we considered *Discovery Lab* findings from across LHCC collectively and found five key areas where innovation is necessary.

1. Automation and objectivity in assessing and alerting about SDoH needs

> *"In one nursing home where I worked previously, I met an Indian patient who didn't want to talk to anyone. She had been in that facility for a year and a half, and she didn't leave her room. She hated it there, and it was because the people taking care of her were men. These were the people who were taking off her clothes and changing her, and it was agitating her. This was culturally insensitive, and she didn't know how to communicate about her discomfort. This was finally discovered, and her team was changed, and she immediately started to get better."*

There is a need for SDoH assessment tools that capture the needs and preferences of individual consumers to inform care plans, admission and discharge decisions, and understand which resources and interventions to activate. Individual needs are varied and nuanced. For example, if a consumer is unemployed and cannot afford the expenses of daily living, it could be

because they do not possess skills attractive to an employer, they may have a felony on their record, or they may have recently completed a substance abuse program, and an employer is not willing to risk hiring someone who might relapse. Each of these cases would require a tailored intervention to meet individual needs, and so a thorough needs assessment is valuable.

Some consumers with SDoH challenges do not know how to access healthcare, and sometimes they avoid longitudinal relationships with a primary care provider because they are embarrassed about those challenges. Sometimes consumers hesitate to provide accurate information on an assessment form or to a case manager or clinician with whom they do not yet have a relationship. There are some areas where innovation could help streamline workflow and support the care team in building and maintaining meaningful relationships with consumers.

SMEs also identified opportunities surrounding a wealth of data that can point to potential needs around social determinants well in advance of any face-to-face contact with a consumer. At least as a starting place, there is an opportunity to readily assess and identify likely SDoH needs without relying on time-intensive meetings and potentially incomplete or incorrect assessments. Potentially relevant data includes zip code/demographic (does the consumer live in a food desert? Does she have access to public transportation?), consumer data, and records of interactions with the criminal justice system and the school system. SMEs emphasized the need for balance in providing better service to consumers and respecting data privacy boundaries.

Providers do not always employ a formal mechanism for assessing SDoH, and so evaluating which SDoH are most important and measuring the impact of failure to address specific factors is difficult. With a mechanism to assess which SDoH factors result in readmissions or failure to find a safe placement option following a long-term acute care hospital or rehab stay, for example, there would be more opportunity to present a solution, given the quantifiable clinical and financial outcomes.

There are many tools on the market that help identify a target population or cohort for an intervention, but fewer that help measure, evaluate, and understand the impact of a particular program or intervention. This is a challenge: it is often difficult to **evaluate outcomes and return on investment** in efforts around SDoH. Tools that offer not just decision support, but ways to test impact on health outcomes and costs around SDoH are necessary to support the business case for these types of investments.

2. Matching person-centered needs to resources

Local Effort: United Community

Many Council companies support, participate in, and continue to assist in actively governing and refining United Community, a Louisville initiative, spearheaded by Louisville's Metro United Way. United Community is a platform and referral system, supported by UniteUs technology, designed to be a "one-stop shop" for information and resources to address SDoH. Council SMEs felt that United Community is an excellent example of the effort that is high investment/high reward, and that it represents an important first step in creating the kind of system infrastructure necessary to truly address SDoH. In order to be sustainable, the network model needs robust financial incentives and system alignment. Consensus across the council is that this platform has promise, and it needs to hit a critical mass of users to reach its full potential.

UniteUs, whose software is the crux of the platform, has been open to creating a center of excellence in Louisville, as participation from the school district makes the Louisville instance unique. The platform is still being refined with user and stakeholder input.

Healthcare is a time-consuming, laborious process for anyone with a healthcare problem. If a consumer lacks access to important resources, or they have behavioral health needs that are not being met, it further complicates their abilities to navigate the system. They may enter the system in the wrong place, overutilize the ER, and have difficulty with engagement and medication adherence. All these factors contribute to poor health outcomes and increased costs. Pressure for the healthcare providers is to be efficient and ready for the next consumer quickly, but even if there is time during a visit, providers are often hesitant to ask questions about potential social needs because they may not be sure that a resource is available to address a need if it is identified.

> *"Right now, there is no one place to look for resources. Do you have food insecurities or housing, or do you have trouble paying your bills? When those answers are yes, we don't always know what to do, and so providers can be uncomfortable asking. We're having these discussions now, but how do we get our providers at a comfort level where they can ask these questions and deal with the answers?"*

Providers often struggle to identify relevant resources once a social need is identified. Community resource availability and eligibility criteria vary from place to place. The challenge is

in arming the clinical team with the resources they may need to address social needs. Many SDoH barriers arise from years of challenges before an individual seeks healthcare, and SMEs stressed the importance of high-quality consumer-clinician and case manager interactions to more fully understand the broader context for consumers' challenges and to know the best way to communicate with and engage a consumer and family.

3. Consumer engagement

Technology needs to sufficiently engage consumers to be effective, and activating consumers is a key challenge area across the LHCC. The medium of communication that will most effectively engage the consumer is not always known, and facilitation or intelligence about individual consumer preferences for telephonic, text, email, or face-to-face communication is valuable.

Data shows that consumer health education can be impactful, and there is a need for engaging educational materials that help consumers better understand diabetes, heart disease, and other common conditions. Smartphone-based programs have not always been effective at engagement or behavior change. Consumer-facing tools can be more attractive/usable in delivering education and empowering the consumer to be an active participant in their own health.

One interesting emerging area that CMS is exploring surrounds intrinsic motivation, and techniques and tools that cultivate intrinsic motivation are on the forefront of innovation around addressing SDoH challenges.

4. Real-time tracking of consumer interactions with the system

Many SDoH-related challenges arise around transitions in care. On the provider side, understanding the consumer's interactions with the healthcare system can aid in proper timing of transitions, for example, when it is most beneficial for the consumer to enter into hospice care. On the payor side, claims data is often available too late to deploy cost-saving interventions. It would be useful (to all stakeholders) to know in real time, for example, that a consumer has accessed the emergency room 18 times in the past 28 days.

Payors do not always have access to consumer clinical/medical records. Point solutions for this type of information integration exist, but they need to be more robust and capture more interactions with a wider swath of the healthcare system. Ideally, this tool would layer on top of existing systems and facilitate data sharing.CBOs are not always equipped (or interested in) interfacing with healthcare entities for many reasons, (HIPAA considerations, data collection/sharing outside of their operational expertise, etc.), but there is an opportunity for innovation around increased data transparency for CBOs. SMEs also identified enabling state agencies in their many roles as healthcare stakeholders as a relatively-unexplored area of opportunity for innovators. State agencies handle much of the flow of data before other stakeholders are involved, and focusing innovative efforts on enabling these agencies could be fruitful.

There are opportunities to better support communities if data is more easily shared among stakeholder organizations. For example, visibility across the school system free lunch program would allow healthcare organizations to be more proactive in providing support for families who need it the most. Exchange of information is a challenge more globally as well. Even information exchange between two healthcare providers is fraught with transparency and interoperability barriers. Information about resource referrals for a consumer often is lost when a consumer transitions to a post-acute partner, and efforts may be duplicated, or needs may not be met.

Even when enabled by tools and Electronic Medical Record (EMR) capabilities designed to improve communication, it is still a challenge to coordinate the entire care team across the continuum. Communication between different systems is a barrier to efficiency, and specialists do not have an easy way to share information, which causes gaps in continuity of care. The lack of transparency extends to system navigation and payment/billing areas as well, as clinicians do not always know the extent of capabilities possessed by partners or how their payment/billing systems function, adding more friction to the transitions to post-acute care, home health, hospice, and others.

5. Assessing and addressing healthcare workforce SDoH needs

Understanding the SDoH that affect the healthcare workforce is important broadly, and it is especially critical for those healthcare settings like long term care, where there is a necessary intimacy between the consumer and the caregiver. In this environment, the social needs of long-term patients are tied to those of their caregivers, and without targeted work addressing SDoH-related barriers in the workforce, other interventions will be less effective.

In the nursing home setting, Certified Nursing Assistant (CNA) caregivers often make up more than 50% of staff, and turnover is high. Food insecurity, housing insecurity, transportation, and access to childcare are frequent barriers for this workforce. Workforce consistency and sustainability is a priority, since high quality consumer interactions, especially if the consumer is non-verbal, or has other special needs, requires a time investment by the caregiver to understand gestures, sounds, and other cues, and this knowledge is lost when the caregiver leaves. Understanding the impact of SDoH on workforce satisfaction and turnover is a key area for innovation.

Criteria for evaluating proposals

This report summarizes hours of interviews with LHCC experts and informs a global call for innovations, to be released in July, 2020, for solutions that address barriers associated with SDoH for older adults aging at home and in care homes and innovations that address those barriers in Black, Minority, and Ethnic communities **LHCC requests proposals for innovations that enable and promote a systems-level approach to addressing barriers related to social determinants of health.** You can find our short application (via the F6S platform) here. Alternatively, you may submit your company's executive summary to info@LHCCinc.com. **The deadline to apply is July 28h, 2020.**

Applications will be evaluated in part according to the following criteria:

- **Clarity around mechanisms for evaluating outcomes.**

Applicants should identify metrics that allow rigorous evaluation of deployed technologies and facilitate measurement of an ROI in solutions addressing SDoH.

- **Ability to promote and enable a systems approach through shared responsibility and aligning incentives.**

> *"I've made thousands of house-calls over the last several years, and sometimes I felt that the most useful thing I did during that visit wasn't some high-level medical decision-making. It was finding their nebulizer on their doorstep, opening the box, and plugging it in for them. There can be so many smart and well-intentioned people supporting this patient, but if no one gets that box off the doorstep and helps the patient use it, a lot of the rest of it is meaningless."*

Solutions will be evaluated in the context of improving healthcare outcomes and decreasing costs in a consumer-centered system in a scalable way. Without a systems-based approach, there is risk of contributing to a mass of disconnected "point" solutions.