PSNet
PATIENT SAFETY NETWORK

System Approaches to Social Determinants of Health Screening and Intervention Innovation Summary

September 23, 2024
https://psnet.ahrq.gov/innovation/system-approaches-social-determinants-health-screening-and-intervention-innovation

Summary

UNC Health is a nonprofit healthcare system of more than 500 clinics and 16 hospitals in North Carolina. In early 2021, it developed an innovation to reduce health disparities by screening patients for high priority social needs and connecting them as needed to social supports and resources. UNC Health developed the innovation in partnership with UNC Health Alliance, its physician-led clinically integrated network and population health services organization. UNC Health introduced the screening program in 92 primary care practices in July 2021.

Innovation Snapshot

Researchers have found that unfavorable social determinants of health (SDOH) can lead to poor health outcomes.[1] With access to patient-level data on SDOH, healthcare providers, teams, and organizations may be able to intervene with patients before these outcomes occur.[2]

With this in mind, UNC Health created an innovative screening program with a focus on four high priority SDOH domains: food insecurity, housing stability, financial resource strain, and transportation.[3] The goal of this innovation was to improve healthcare quality, both in quality scores and measures.[3] The program was implemented across UNC Health's 92 primary care practices.

In 2021 and 2022, UNC Health screened 250,000 patients for at least one of the four priority domains.[3] From these screenings, 1,600 individuals were identified as having a social health need and were referred to UNC Health's newly established community health team.[3] The team connects patients who test positive for unfavorable social determinants of health to community resources and supports, such as housing support, food banks, and financial assistance programs.[3]

Description of Innovation

UNC Health is a nonprofit healthcare system of more than 500 clinics and 16 hospitals in North Carolina. In early 2021, it developed an innovation to reduce health disparities by screening patients for high priority social needs and connecting them as needed to social supports and resources. UNC Health developed the innovation in partnership with UNC Health Alliance, its physician-led clinically integrated network and population health services organization. UNC Health introduced the screening program in 92 primary care practices in July 2021.[3]

UNC Health built a robust component within its electronic health record based on validated questionnaires that collect patient-level SDOH data.[3] The electronic health record (EHR) system also includes a systemwide dashboard that monitors data collection. The validated questionnaires were built into current workflows. UNC Health trained the staff at several primary care clinics each month using various training materials and virtual and in-person meetings. [3] The training was conducted over 3 months in three phases: education and determination of initial workflows; continuous improvement, with Plan Do Study Act cycles; and maintenance, with weekly check-ins and data monitoring. [3]

For this article, Dr. Amy Shaheen, M.D. from UNC summarized the three key types of staff that support this innovation: coaches, who provide implementation support; community health workers, who are part of the population health management team and are responsible for connecting patients to social supports after they screen positive for SDOH barriers; and clinic champions. The coaches teach the clinics how to conduct screenings and support the champions in teaching the clinic staff. For example, the coaches enroll the community health workers in the clinic champion's preference list for referrals so the champion can share it among their clinics. Additionally, the coaches run monthly online meetings with the clinic champions. In these meetings, clinic champions can collaborate on best practices.

The community health workers match patients with local resources or make referrals through a support portal called NCCARE360 when there is uncertainty about resources in a community.[3]

Published Results

Between July 2021 and October 2022, 57% of adult and 53% of pediatric primary care patients were screened for at least one of the SDOH domains: food insecurity, housing stability, financial resource strain, and transportation.[3] Food insecurity was the top domain, with 29% of all patients screened, with 4% of those screened indicating food insecurity.[3] While fewer patients were screened for financial resource strain (18%), it was the top domain for which screening indicated patient needs (7%).[3]

There were 1,611 unique patients referred to the community health team between January 2022 and October 2022.[3] Approximately 300 referrals were made for application assistance, such as the Supplemental Nutrition Assistance Program, Medicaid, disability, and financial assistance.[3] There were 612 referrals for transportation and 50 for lack of access to durable medical equipment.[3] Two hundred and twenty-five referrals were made for medication assistance and areas like manufacturer or internal program pharmacy assistance.[3] There were 375 referrals for housing instability, 400 referrals for food insecurity,

and 400 referrals for miscellaneous social needs, such as domestic violence and home repairs.[3]

Planning and Development

The keys to success of any patient safety innovation or intervention include leadership and staff buy-in, staff involvement in planning and development, and a establishing a data infrastructure to collect process and outcomes measures to track performance and drive improvement. Specific planning and development activities related to this innovation included developing a strong governance structure, designing the EHR system, and hiring innovation staff.

A strong governance structure is key to planning and developing the innovation. UNC Health's governance structure is called the Primary Care Improvement Collaborative (PCIC).[3] It consists of leaders from the 92 primary care practices, which provide care to more than 400,000 patients.[3] The PCIC determined the measures and targets for the innovation and set a practice goal to screen for one of the four key priority domains.[3] The PCIC operations committee provided education on workflows and collecting and acting on social determinants of health findings from the health screening innovation.[3] They held meetings to share screening scripts with providers, who learned how to connect patients with appropriate resources when the results of the screening identified opportunities to improve one or more of the SDOH domains.[3] UNC Health's population health group is in charge of strategy, finance, staffing, and operations for the innovation, as well as management of the EHR system.[3]

Designing an electronic system to capture and monitor SDOH data is a key developmental component of this innovation. Standardized measures should be designed to collect simple screening information. Trends can be displayed on a data dashboard accessible to all members of the participating organization. This dashboard should display positive and negative trends and can assist with garnering buy-in from the staff.[3] Dr. Shaheen says that proper EHR integration could allow smaller organizations to implement this innovation without having to hire coaches. Smaller organizations, for example, may not need to hire coaches for staff education if the standardized measures are properly incorporated into existing workflows. Training can then be led by champions or those involved in governance.

It may be necessary to hire community health workers to support those who screen positive for SDOH barriers by linking them with community resources.[3] Additionally, community health workers create the lists of local resources providers use for their patients and can develop and standardize the community resource pages for all team members.[3]

Resources Used and Skills Needed

The resources and skills used to support implementation of this innovation are as follows:

- Essential team members include clinical leadership, population health leadership, and frontline staff (providers).[3] Coaching for frontline staff via clinic champions and care management for patients via community health coaches was beneficial for the innovation's success.[3]

- Creation of workflows and data to track, monitor, and report via the data dashboard [3]
- Time and resources to develop and disseminate in-person and virtual training materials[3]
    - Each clinic received three phases of training over 3 months: education and determination of initial workflows; continuous improvement with multiple Plan Do Study Act cycles; and maintenance, with weekly check-ins and data monitoring with their champion[3]
- A web page where all participating providers can go to view developed resources and training materials[3]
- Support from community resource organizations[3]

Implementation Costs And External Funding Support

Dr. Shaheen reports that UNC Health funds this innovation with shared savings from its value-based contracts from their commercial and government payers.

Sustaining the Innovation

Dr. Shaheen also says that starting with modest goals and iterating is beneficial for sustainability. For example, to avoid overburdening providers and to sustain the innovation, UNC Health only required screening for one domain in the first year of implementation.

Additionally, UNC Health increased the likelihood of sustaining buy-in from healthcare providers by reiterating that it's not their job to close gaps in social determinants of health. Instead, providers are asked to identify the gaps and, with the patient's approval, refer them to the community health team [3]

According to Dr. Shaheen, prioritizing social determinants of health across the entire innovating organization is integral to creating a holistic health model. There should be support for the innovation at the system governance level. For sustainability, the innovating organization's governance must have a clear understanding of the resources available, including people, their responsibilities, and the budget.

Working proactively to sustain the innovation team — community health workers, financial counselors, pharmacists, care managers, and social workers — is beneficial for maintaining the innovation.[3] Additionally, proactively building external relationships with community organizations and healthcare payers supports the innovation's longevity.[3] It is important to share wins with all stakeholders. Disseminating wins from the innovation with stakeholders outside the healthcare system may help garner support from other payers and community resources, which may lead to expanding available resources to support patients.[3] It's also important to emphasize that making significant change is a gradual process that doesn't happen overnight.[3]

Use by Other Organizations

Dr. Shaheen said that many organizations have reached out about replicating this innovation. However, she has yet to follow up with any of these organizations to see if they have done so.

References

1. Stange KC. The problem of fragmentation and the need for integrative solutions. *Ann Fam Med.* 2009;7:100-103. [Free full text]
2. Rosen MA, DiazGranados D, Dietz AS, et al. Teamwork in healthcare: key discoveries enabling safer, high-quality care. *Am Psychol.* 2018;73:433-450. [Free full text]
3. Shaheen, Amy, et al. “System approaches to social determinants of health screening and Intervention.” *NEJM Catalyst*, vol. 4, no. 4, 15 Mar. 2023, https://doi.org/10.1056/cat.22.0361.

Contact the Innovator

Amy Shaheen: Amy.Shaheen2@unchealth.unc.edu