Healthify

An ROI Framework for Social Determinants of Health Interventions

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Executive Summary

The social determinants of health (SDoH) are playing an important role in the evolution of care delivery and population health. But identifying the ROI of SDoH interventions remains a significant challenge. Even for organizations with robust intervention systems in place, capturing and quantifying the effectiveness of SDoH interventions remains a hurdle.

SDoH interventions are an expansion of clinical care coordination. The same systems and processes used to capture and quantify the ROI of clinical interventions can be leveraged to measure the effectiveness of SDoH interventions.

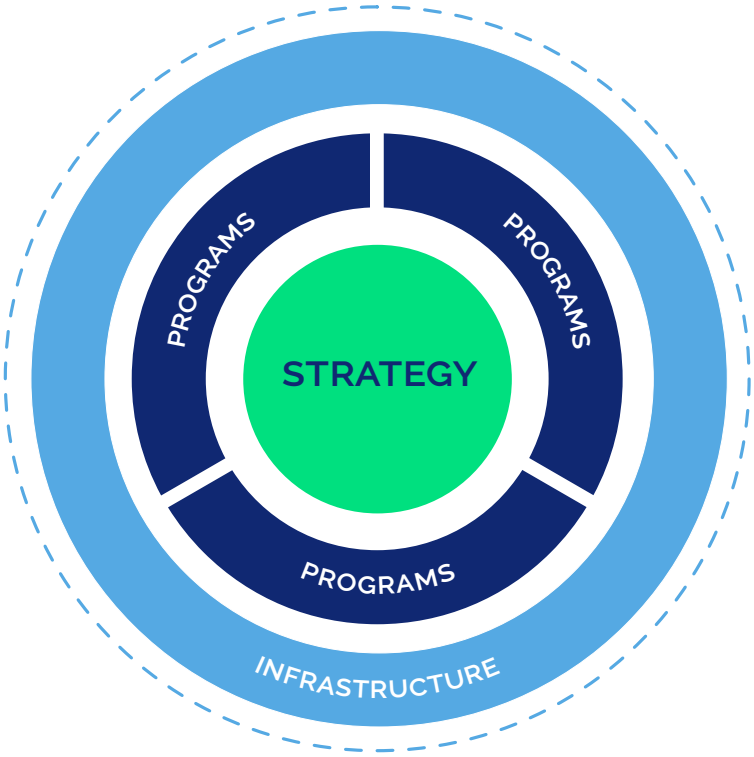
However, despite the similarities in methods of measuring impact, payors must still proactively consider how SDoH data will be identified, collected, and assessed as they build out their foundations for successful social service networks. Without these considerations, attributing total costs of care savings can become a muddled exercise.

In this brief, we provide a clear framework for capturing and quantifying the ROI associated with SDoH interventions and how the framework fits into key foundational steps in building a social services network.

Introduction

Before diving into the ROI framework, it's important to recognize the three critical components of any successful social services network:

- **SDoH Strategy**: Holistic, enterprise-wide objectives and goals for incorporating SDoH into the broader strategy.
- **Programs**: Distinct population health management programs that address the social needs of target populations.
- **Infrastructure**: The underlying people, governance, workflows, and tools to support programs, track performance, and measure outcomes. This includes data-sharing, incentive/reimbursement structures, and service-level agreement requirements.



Payors who are launching or have launched a social services network will have a clear and defined SDoH strategy, programs tailored to their target populations, and a strong infrastructure to operationalize the network. Within each of these foundational building blocks, it's important to consider why and how SDoH data will be collected, and how it will be assessed. In doing so, payors are well-equipped to conduct a thoughtful and accurate assessment of the ROI on SDoH interventions.

As we walk through the ROI framework, we'll reference strategy, programs, and infrastructure to contextualize further how the framework fits into the necessary components of a successful social service network.

Identifying, Collecting, and Interpreting SDoH Data

Populations and Metrics

As part of an SDoH strategy, payors must align on a target population and the metrics that will be used to evaluate the impact of interventions. Broadly, the goal of any SDoH program is to reduce the total cost of care while improving health outcomes. While total cost of care is the key metric, it's only an output of many different inputs. The individual metrics identified in this step are the inputs that will inform total costs of care, similar to any ROI analysis for clinical interventions.

A study done by the Commonwealth Fund found that wide variations in costs and use of services within a high-need, high-cost group suggest that SDoH interventions should be targeted and tailored to those most likely to benefit.

In the same fashion as clinical interventions, the metrics defined in this framework will be entirely based on the target population identified. In most cases, the targeted population will be high-need, high-cost (HNHC) members, and here is where the challenge lies: The definition of HNHC members varies and continues to evolve. And even when they're identified, studies have found that targeting members based on cost alone might not result in the identification of members of whom an intervention would be most effective.

Many payors have already done the work of identifying HNHC members for clinical purposes. Still, in many cases, further segmentation by specific SDoH domains is necessary to create hyper-targeted SDoH interventions. For example, within a HNHC population, a payor may decide to focus on HNHC members who are food insecure in a specific geographic area.

Payors and providers are already leveraging predictive modeling and risk stratification to sort their populations into risk levels. Similar methods can be applied to further segment HNHC members by SDoH domains and by geographic location.

Once a population is identified and defined, payors must align on the metrics used to evaluate the impact of an SDoH intervention. Like clinical ROI analyses, utilization and cost measures will be key factors in determining the true cost savings as a result of SDoH interventions. Payors must consider SDoH-specific metrics like SDoH intervention types, estimated costs, and frequency. By doing so, payors have a clearer view of the savings over invested costs.

Tailored SDoH programs will play a critical role in determining the types of SDoH metrics payors will need to identify. Because programs are tailored to specific populations and outcome goals, metrics will vary depending on the details of each program. For example, for a food-as-medicine program offering classes with nutritious, hands-on cooking instruction and weekly nutritious food deliveries, metrics such as the number of members enrolled, cost per food delivery per individual, and member experience and satisfaction scores, may help determine the true ROI down the line.

Because an intervention's impact on utilization and cost measures may not be immediately evident, identifying proxy measures (like process or quality) can indicate a step in the right direction.

Example Metrics

Process	• Total number of members who've receive the intervention • Number of members who receive the intervention over time
Quality	• Standard quality measures like HEDIS • Member experience and satisfaction
Utilization (Clinical and nonclinical)	• Hospital Length of Stay • Hospital Admissions • Hospital Readmissions • Skilled Nursing (SNF)/Rehab Facility Admissions • SNF Length of Stay • Emergency Department (ED) • Pharmacy, Imaging, and Other • Nonclinical services (e.g., transportation, legal aid, housing support, etc.)
Cost (Clinical and nonclinical)	• Average cost per hospital inpatient day, per patient • Average health expenditures per person, per year • Average inpatient spending per member, per year • Average post-acute care spending per member, per year • Total preventable spend for acute hospital costs per member, per year • Total preventable spend for acute hospital costs per member, per year • Variable or fixed cost per nonclinical unit/service, per member

Adapted from The Commonwealth Fund, Data Checklist, ROI Calculator for Partnerships to Address the Social Determinants of Health. https://www.commonwealthfund.org/sites/default/files/2019-06/ROI_Calculator_final.pdf

Overall, the processes for identifying a population and aligning on metrics are not dissimilar from clinical ROI analyses.

Collect Baseline

Once a target population is identified, and there is alignment on the metrics that will be tracked, payors can establish a baseline for utilization and cost measures as well as the estimated costs for individual SDoH interventions. While the process shares similarities with clinical baseline collection, the difference for SDoH interventions is that clinical and claims data alone will not provide the insights necessary to establish baselines related to SDoH interventions.

Baselines for SDoH-related metrics will come from a robust infrastructure that supports data-sharing and collection between the clinical and nonclinical partners involved in coordinating a member's care. Baselines for metrics such as cost per food delivery per individual from a food-as-medicine program will likely depend on data entries (like the number of individuals who received food deliveries) from the CBO or social service organization contracted to provide the services.

> Infrastructure refers to the people, processes or workflows, and technology required to facilitate collaboration between every entity involved in a member's care journey. The people aspect of a network's infrastructure is the partners and their respective roles in a network, the type or model of partnership in place, and the contractual agreements that formalize those relationships.

Contracts that specify how data will be used, accessed, and reported is a critical part of an infrastructure and will influence the integrity of the data used to interpret the ROI of SDoH. Technology and interoperability also play a significant role in sharing and accessing data across disparate systems, internally and externally. Without the proper tools and workflows to support data-sharing across a member's entire care journey, identifying baselines that are accurate and comprehensive will be challenging.

In the Ongoing ROI Monitoring portion of the framework, we will dive deeper into infrastructure and the various components within it.

Establish Targets

In most cases, population health departments have already identified outcomes and cost targets before launching an SDoH initiative. However, one caveat in establishing targets is ensuring that at-risk providers with value-based contracts are considered before finalizing. Because each contract contains unique quality and cost goals, those organizations may want to see their targets baked into the broader targets associated with an SDoH initiative.

Ongoing ROI Monitoring

Infrastructure — the people, processes or workflows, and technology — is the glue that enables ongoing ROI monitoring. Each component of an infrastructure is integral to tracking the impact of SDoH interventions. Three core pillars comprise a strong infrastructure: **Service delivery arrangements**, **Data**, and **Technology**.

Service Delivery Arrangements

The people aspect of a network's infrastructure is the partners and their respective roles in coordinating interventions. It also includes the type or model of partnership in place and the contractual agreements that formalize those relationships. These contracts inform the processes and workflows, or the specific internal motions each partner takes to follow through with their contractual responsibilities. This can ensure data upkeep and accountability for providing services to members, which will later inform ROI analyses.

Data

How network partners interact with data gathered from target populations is a vital part of any infrastructure and will bolster SDoH data for future ROI analyses. Contracts should specify how data will be used, accessed, and reported. Depending on the types of organizations in the network, some organizations may only need access to program-level reporting. Others may need access to patient-level information but may not be required to input additional data points. Other organizations will need to have full access to view and input patient-level data in real-time and are required to share the data with a specific set of partners. Sharing utilization and outcomes data is an indispensable component of effective partnerships and integral to seamless ongoing ROI monitoring.

Technology

The final piece in infrastructure is the technology needed to facilitate the operational efficacy of a network. An EHR is not enough to support the new or updated workflows and processes implemented to support SDoH interventions. As a result, payors will need to have tools to collect and share data across nonclinical and clinical organizations and to deploy and track SDoH interventions.

When vetting tools to implement and adopt across a social services networks, payors should consider the specific needs within their network and determine if those tools are interoperable with other systems such as an EHR. Interoperable tools will ensure that information is not siloed and is readily accessible.

Thinking through these components while building or bolstering an infrastructure will help create a robust and sustainable process for tracking the ROI of SDoH interventions on an ongoing basis.

Conclusion

Understanding the ROI of SDoH interventions is the key to securing buy-in for further SDoH investments. But capturing and quantifying the effectiveness of SDoH interventions is still a hurdle. Fortunately, the methods for SDoH ROI analyses share many similarities to the processes many population health departments are already using to assess the effectiveness of clinical interventions.

The four-step framework in this brief provides a high-level approach to SDoH ROI analyses. Throughout all of the framework's steps, consider how SDoH network data will be identified, collected, and assessed. Without such considerations, a fragile infrastructure could weaken how a network attributes total costs of care savings to an SDoH intervention program.

About Healthify

Powered by a mission to build a world where no one's health is hindered by their need, Healthify builds the infrastructure to support social determinants of health (SDoH) initiatives at scale. We offer access to carefully constructed accountable networks of social service organizations. Each network is geo-targeted and intervention-focused to ensure that the unique needs of each community are addressed. Healthify also works directly with social service organizations to develop and formalize contracts, ensuring accountability across its networks. Supported by an interoperable SDoH referral platform, partnering organizations can coordinate care with ease, while ensuring their communities are receiving the services they need to thrive.

For more information, please visit www.healthify.us, or connect with us on LinkedIn or Twitter.