3 Steps for Building an SDOH Business Case

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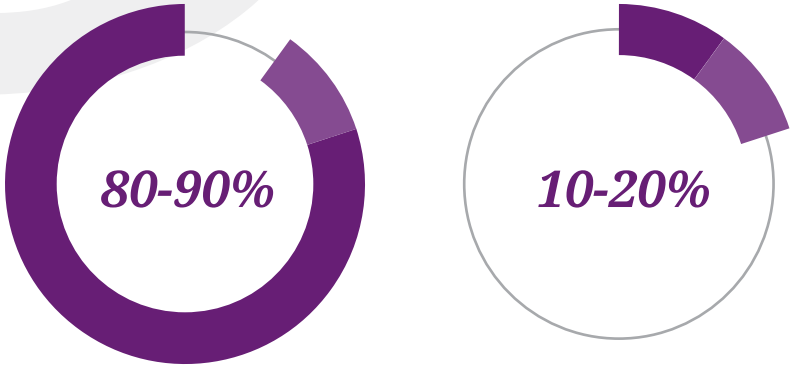
Social determinants of health (SDOH) data, which include information on a person's income, education, neighborhood and other social factors, play a critical role in improving health outcomes and reducing healthcare costs. Research has shown that 80% to 90% of modifiable health-related behaviors such as the environment people live in, their income or education level, and other socioeconomic factors affect health while medical care accounts for only 10% to 20% of controllable contributors to healthy population outcomes.[1,2]



of modifiable health-related behaviors are linked to SDOH.

of controllable health outcomes are related to medical care.

Healthcare organizations understand that SDOH factors can improve health outcomes and minimize medical costs. However, many still miss the opportunity to maximize the use of SDOH data to improve patient outcomes. Given that SDOH can come from a variety of sources, organizations may not fully understand what SDOH data to use to maximize the accuracy of predictive analytics, or how to integrate the data into their current workflows. They also may not understand how to effectively use the insights derived from SDOH data to identify populations with barriers to care and/or stage interventions to influence healthy behaviors, which is critical to affecting overall health. Finally, many healthcare organizations recognize the value of SDOH data but simply have no idea where to start.

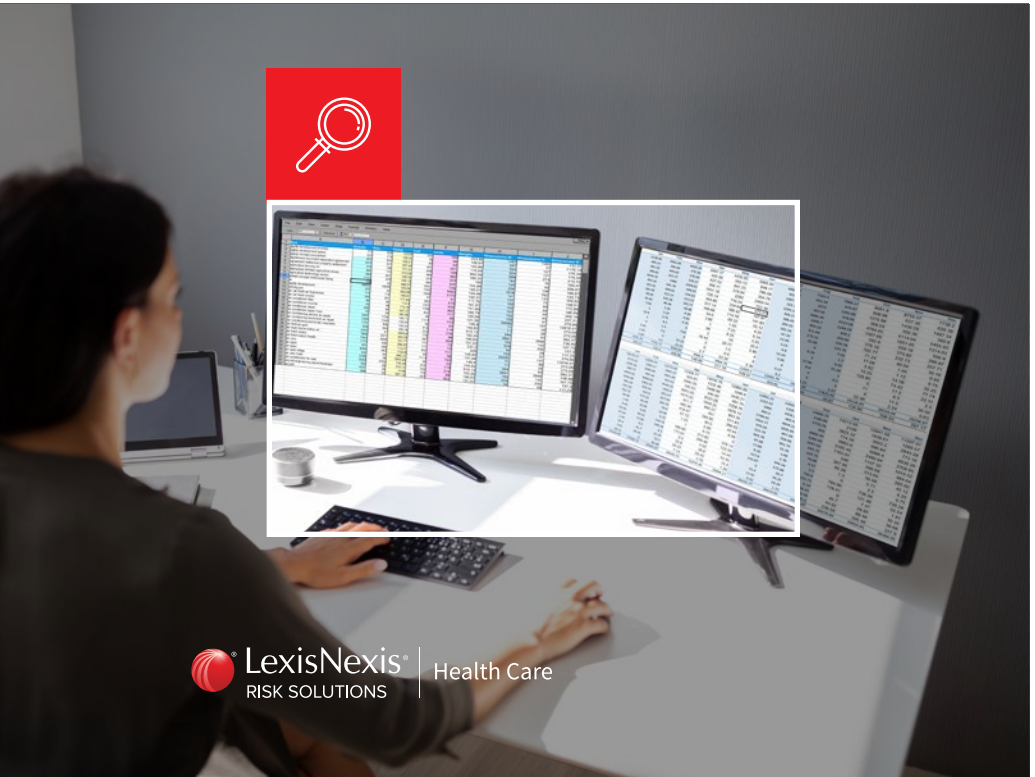
Based on our experience working with healthcare organizations as they design SDOH initiatives, we've compiled our best practices and knowledge into this playbook. Building a successful business case is essential to getting any SDOH initiative off the ground and requires a thorough analysis of your patient/member population to determine a focus as well as a methodology for connecting the use case to ROI to get leadership and other stakeholder buy-in.

We believe these three steps will help your organization build a strong business case for implementing SDOH initiatives that will positively affect the health outcomes for your patient population and provide a methodology that can be used to scale into larger, more encompassing programs over time. Because measuring success throughout the process is vital to understand the effect of SDOH initiatives and because different stakeholders look at different metrics, we've highlighted measurement suggestions and/or key takeaways for consideration for your business case throughout each of the steps.

STEP 1

Select Area(s) of Focus for Your SDOH Initiative Using SDOH Data and Analytics

THE FIRST STEP IN INCORPORATING social determinants of health into the care journey is to identify which population and health outcomes to target. Your quality and analytics groups typically manage this first step — testing and collecting SDOH data sources to choose the most predictive ones, creating predictive models using that SDOH data, and then measuring how well those models predict health outcomes and subsequently identifying population-level needs and individual member stratification. When done successfully, the insights are then passed to the care teams in Step 2 and Step 3.



During this first step, you will want the organization to evaluate such questions as:

- **Do we want to supplement current clinical models with scores built only from socioeconomic data?**
- **Do we want to combine socioeconomic data with clinical data to create new predictive models?**
- **Which targets/conditions will best be affected by SDOH data and health-risk scores?**
- **Why are certain individuals at risk? What social determinants are most driving that risk?**
- **Is that information actionable? What do we need to do to turn insights into value?**

"When starting out in deciding how to address social determinants of health, it can be easy to get overwhelmed by the options — after all, social determinants of health can improve health outcomes in a variety of use cases," said Rich Morino, senior director of strategic solutions at LexisNexis Risk Solutions. "Should you address medication adherence or hospital readmissions or another outcome first? Should you tackle housing stability or transportation access needs or another social determinant first? We suggest starting with clinically validated social determinants of health data to evaluate needs at the population and individual levels to make these decisions."

Healthcare organizations can use numerous types of datasets for SDOH initiatives, but some types of data are much more useful than others. "I think the biggest lost opportunity around SDOH data is when organizations try to use low-quality data assets, such as data collected from brief survey questionnaires at various touch points like during clinical encounters, marketing data or regional-level data," said Dr. Anton Berisha, former general surgeon and now senior director of claims informatics at LexisNexis Risk Solutions.

A more reliable, trusted source of data — and one that is highly scalable — is public records, such as addresses, phone numbers, car registrations, etc.. However, that data changes regularly — people move, sell/buy assets, get new phone numbers, etc. — so for the data to remain relevant, it must be regularly refreshed and provided in a consistent format.

Within one sample member population, LexisNexis saw that for patients with a medium to high risk of being readmitted, about 1,200 had phone-access challenges and about 350 had address-stability challenges. If you knew those challenges existed within your population and knew that addressing their phone and address stability could help to prevent those readmissions, wouldn't you want to help those individuals find reliable housing or access to a phone?

"Focusing on socioeconomic factors or conditions and events that are highly correlated to the social-economic environment is the best path to successful use of data."

Rich Morino, Senior Director of Strategic Solutions at LexisNexis Risk Solutions

"The best use cases for social determinants of health are those that focus on clinical conditions and outcomes that are driven by the socioeconomic environment around the individual, such as COPD, obesity, diabetes and coronary disease," Berisha said. He also noted that organizations should focus on "conditions that cause costly hospitalizations, ER overutilization and more disease complications — as these ultimately lower the quality of life."

During Step 1, it is important to narrow the focus to a few key use cases. We recommend that you "think globally, but act locally," so that you're not trying to boil the proverbial ocean. Start with focused, yet scalable initiatives. This means thinking globally by assessing your entire population — determine who in your population is at risk, understand why they are at risk and identify which conditions exist within your population that you can align to a community service that can address certain barriers to health. Once you've completed your global analysis, you can begin to identify a narrower population to help. For instance, you may choose to limit your program to a single location (e.g., Orlando) or population set (e.g., diabetics). Eventually, you can get to a local level where you are identifying the individual care needs of patients. We'll discuss thinking globally and acting locally more in Step 2 and Step 3.

"I think the careful balance that the organization needs to have in mind is to select the most important use-case drivers but filter for those that they have knowledge and resources to impact and improve upon," Berisha said. "And that should get the organization to a narrow and focused list where they can improve health outcomes the most."

Calculating ROI for Hospital Readmissions Reduction Program Using SDOH

When you start to build a business case for putting together a SDOH program to prevent hospital readmissions, it is good to start with an understanding of the costs of those readmissions. In this example, let's assume there are 1,200 heart-failure patients in a Medicare plan. Studies have shown that about 25% of those patients are likely to get readmitted to the hospital, which equates to about 300 readmissions.[3] If we use an industry average of $12,600 per readmission, that means that those 300 readmissions could cost the healthcare system $3.78 million. Here's an example of how you can estimate, using industry averages and numbers from external studies, the ROI of implementing a "teach back" program.

CONSIDER THE COST of the readmission-prevention program. One possible option is to teach patients what they need to do after discharge and then have the patient teach it back to the care provider to ensure understanding and help with retention. If we assume it takes about one hour per patient to complete this teach-back process, we can estimate that is about $33 of a staff member's time. This would equate to $39,600 to do this with all 1,200 admitted patients.

CALCULATE THE POTENTIAL SAVINGS of a readmission-reduction program. The UCSF Medical Center program found that its teach-back methodology cut readmission rates 30%.[4] Assuming a similar reduction in our readmission rates, of the 300 likely readmissions, we could have prevented 90 of them with a teach-back program. At $12,600 per readmission, that is a savings of $1.094 million.

That's a 29% lift in cost savings. While this example is hypothetical, it shows how effective addressing the individuals' SDOH needs around education can be at reducing costs.

STEP 2

Map Existing SDOH Programs to Patient Needs and Identify Gaps

ONCE YOU'VE DETERMINED who is at risk and what kind of help they require, the second step is deciding where you have the resources to help, both with internal programs and community partnerships. This step is often managed by your population's health group or in partnership with community partners. In this step, your organization should ask questions like:

- **Based on the socioeconomic barriers to health within my population identified from Step 1 (e.g., lack of transportation, elevated crime rate, etc.), which social services are available already in the community to address them?**
- **Does it make sense to align with those existing services to make them scalable and sustainable for my population?**
- **Does the concentration of patients in a certain geography indicate that building out our own services makes more sense?**

Beginning with existing resources can be the fastest path to seeing value in SDOH insights. "Because you have a service in a market already established, it's then much easier to utilize those services to improve health outcomes and track and measure the success of those individuals and to use that as a mechanism to prove the results and invest more in your long-term plan," Morino said.

However, gaps in care programs should also be identified and addressed if those services are necessary to meet a critical need in the population. "Matching individuals with specific health conditions to the nearest or best community resource that can address those needs is something that can proactively mitigate negative healthcare outcomes," Berisha said.

Measuring success at this stage will involve weighing how well internal programs and community partnerships cover the SDOH needs of the member population, then establishing new programs and partnerships to cover them. This factors into the cost side of your business case, but it will also have a big effect on improving health outcomes and allow you to achieve ROI.

"Matching individuals with specific health needs to the nearest or best community resource that can address those needs is something that can proactively mitigate negative healthcare outcomes."

Dr. Anton Berisha, Senior director of claims informatics at LexisNexis Risk Solutions

STEP 3

Coordinate Care by Tailoring Health Services and Care Interventions to the Individual

COORDINATING CARE BETWEEN CLINICIANS, social workers and other community resources, and the at-risk population, is where your SDOH program will have the biggest effect. This is when data begins to affect health outcomes. In Step 3, it's vital to work with clinicians to ensure that they understand how to get the SDOH data they need and how they should use it to improve health outcomes for individuals. It will also be important at this stage to measure how engaged patients are in participating in their own care and how actively they follow recommended interventions.

In this step, we recommend asking yourself such questions as:

- **Which community resources or SDOH programs would best meet the needs of this specific patient? What questions do I want to ask them to determine how we can help based on the SDOH insights I have received?**
- **Were we able to reach the member to coordinate the service?**
- **Did the patient use the service?**
- **How likely is the member to participate in managing their own health?**
- **For patients who did use the services, did it improve their targeted health outcome?**

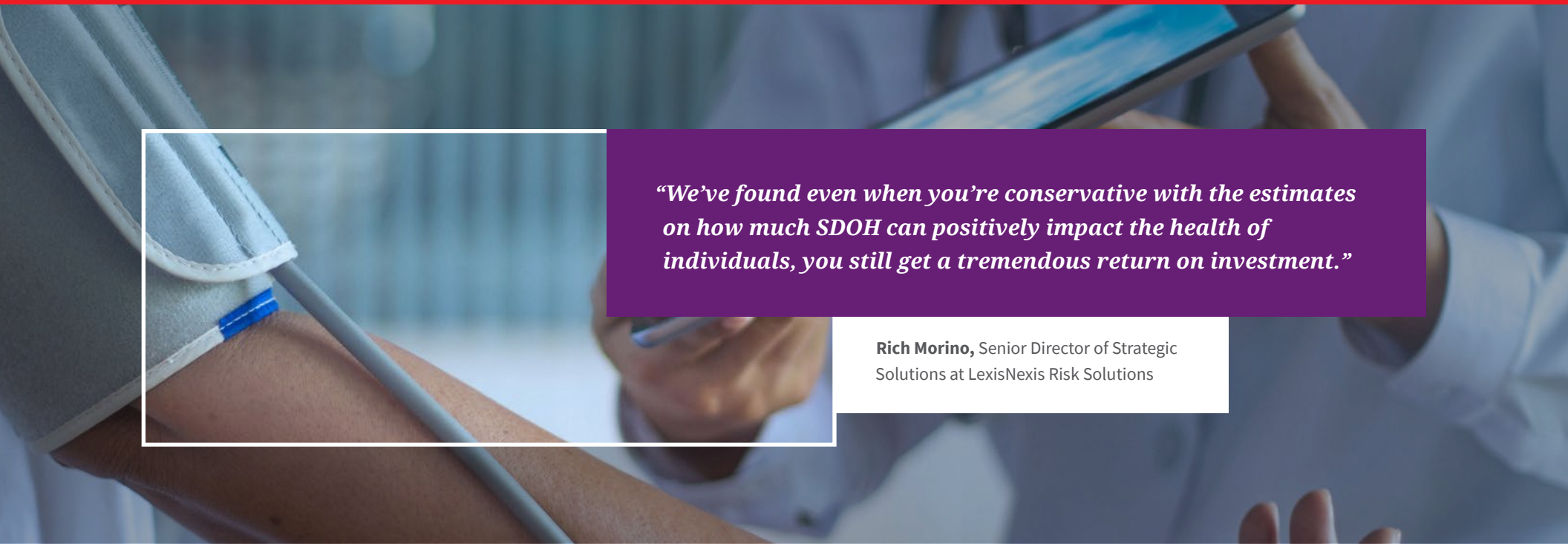
External studies can really help at this stage for estimating potential ROI for your organization if you were to enact similar programs. For example, by providing medical-respite housing, one hospital system reduced readmission rates 6% to 14% for homeless patients over three years, with estimated savings of $12,000 per patient across all Medicaid claims in the year after the respite.[5] Could a similar program produce similar results in your organization?

"Measuring and identifying negative SDOH factors and matching them with proper resources will ultimately close the loop of true and comprehensive care coordination," Berisha said.

Building a Business Case Based on the Three Steps of Developing an SDOH Initiative

THE BOARD OF DIRECTORS and the C-suite (or leadership teams) will be the most invested in how SDOH initiatives can affect bottom-line outcomes. This is the time when your board of executives and your leadership team are going to say, if we invest in doing the analytics, if we invest in mapping to the community resources, if we invest in getting individual patients' SDOH care, what results can we expect? How will this improve health for patients? They are going to ask, will satisfaction scores go up? Will our quality rating improve? Will we save on costs, and by approximately how much? Are we getting positive feedback from the staff that this has made their jobs easier? They will want you to forecast the answers to those questions in a business case and then track results against expectations to show if, overa l, was the program valuable to execute on.

Defining metr cs to track success along the way is crucial as you p lan to implement SD OH initiatives so that all stakeholders are engaged. Once you have selected your top one to three targets to address with SDOH initiatives initially, you w ill need to track to see if there was an improvemen : in each selected healt h outcome target, for instance, in medication adhe ence or reduced hosp tal readmissions, as a result of your initiative.



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> **Rich Morino,** Senior Director of Strategic Solutions at LexisNexis Risk Solutions

A key aspect of building a strong business case includes calculating and estimating the ROI associated with the initiative. ROI can be calculated both monetarily and via improvements in quality scores (i.e., HEDIS and Star ratings). Tying data to action also makes it possible to increase spending around quality initiatives when working to optimize MLR ratios. As you're determining your focus, look for a project that allows you to measure its effectiveness in one year, and one where you can evaluate potential cost reductions, as well as health outcomes. One way to help narrow the field is to use available studies on the effect of SDOH on health outcomes to estimate what the potential outcomes might be.

"We've found even when you're conservative with the estimates on how much SDOH can positively impact the health of individuals, you still get a tremendous return on investment," Morino said. "Even with conservative numbers, you can show your board of executives or your leadership team that your initiative has huge potential to save costs and improve the well-being of individual patients."

For instance, for a health plan with just 100,000 patients being evaluated by HEDIS, each quality measure could mean about $17 million in reimbursements from federal or state agencies.[6] Likewise, 4- and 5-star Medicare Advantage plans receive bonuses of about $500 per member per year from the Centers for Medicare & Medicaid Services. A 1-star improvement can increase the likelihood that patients will enroll in a plan by 8% to 12%. Considering both factors, health plans can increase annual revenue 13.4% to 17.6% by improving from a 3- to a 4-star rating.[7]

Example: Using SDOH to Improve Medication Nonadherence

Medication nonadherence costs the healthcare system $300 billion and is responsible for 125,000 deaths annually,[8] making it a very important healthcare issue. SDOH data can be used to help predict which patients are most likely to be noncompliant. This information can then be delivered to care-management resources via risk scores. Data scientists at LexisNexis Risk Solutions have found interesting correlations between SDOH and medication adherence and how the data can be used to improve health outcomes.

When looking at claims history and actual outcome rates for medication adherence, our team of data scientists found correlations between the following SDOH attributes and better adherence.

ONE CORRELATION SHOWS that financial health correlates with whether an individual is likely to adhere to their medications. Adherence was designated as adherent 80% of the time or more based on industry standards. A study done by Express Scripts looked at the effect that enrolling an individual in financial-assistance programs could have on improving adherence and found that patients with inflammatory conditions that were enrolled in a financial-assistance program saw a 7% improvement in adherence, compared with patients that were not enrolled.[9] This correlation makes sense when you consider that cost of prescriptions is often cited as a primary reason patients are not adherent.

ANOTHER CORRELATION FOUND by our data scientists shows that distance to a nearest relative or associate also correlates to whether an individual is likely to adhere to their medications. It turns out that if your nearest relative or associate lives more than 25 miles away, you are less likely to take your medications as prescribed. This makes sense when you consider it may be harder for patients to get their prescriptions if they do not have social support nearby. A review of 50 studies found a greater degree of practical support such as medication help; help with household functions, such as cleaning and cooking; and help with transportation was most consistently associated with greater medication adherence.[10]

Implementing predictive scores for medication adherence is a good place to start with programs to improve medication adherence based on addressing SDOH. Assume, for instance, that you have a sample population of patients that are unlikely to adhere to their medication regimes as prescribed. Using the attributes related to financial health and social support as guidance, among others, your organization can implement a medication-adherence score that can be presented to a care manager, social worker or other care provider that predicts the likelihood of each member to adhere to their medications over the next 12 months based on that individual's SDOH. This will allow you to segment your population and match the type of care they need to their situation.

Drive Value and Cost Savings With SDOH Data

GETTING AN SDOH INITIATIVE OFF THE GROUND requires a lot of thoughtful coordination and analysis between analytics teams, clinicians, social workers and other community partners and buy-in from leadership. The three steps outlined in this paper can help to provide a structure not only for building a business case by identifying estimated ROI, but also for helping you identify "quick win" projects to kick-start efforts, as well as help you to define metrics to illustrate success. Following defined steps can help you to avoid "paralysis by analysis." The best way to make an impact is to get started and scale from smaller wins. You can then compile lessons learned and expand your initiatives for even greater cost savings and positive health outcomes.

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