Social Determinants of Health: The Impact on Members, Health Outcomes and the Bottom Line
What are Social Determinants of Health?

We all understand that over the course of a lifetime, multiple factors affect our ability to achieve and maintain good health. However, until recently, the focus of providers and payers has been on treatment, condition management and consumer satisfaction. Today there is a wide and growing recognition that health outcomes are determined more by social factors than by medical care. Research indicates a new direction is required in how the industry approaches managing the health of individuals and populations.

Attention has shifted to social determinants of health (SDoH), or the conditions that affect individuals at birth and throughout their daily lives. SDoH factors include socioeconomic status, education, employment status, physical environment, the availability of social support networks and access to healthcare. Social factors have been shown to have an enormous effect on health outcomes.

Fundamental disadvantages like poverty, hunger and homelessness typically coexist with a lack of transportation and information about the healthcare system. As much as 80 percent of patients’ health is affected by these factors. Consider the following statistics:

- Twenty-six percent of U.S. adults said that they had experienced emotional distress in the past year that was difficult to cope with alone.
- U.S. adults were more likely than adults in all other countries to report that they were “always” or “usually” worried about having enough money to buy nutritious meals and to pay their rent or mortgage.
- U.S. adults were the most likely to report financial barriers to healthcare, and 33 percent reported that they have had a cost-related access problem in the past year.

While healthcare professionals agree that SDoH factors are hugely important in effective patient care, there are few coordinated efforts to address these issues. To address a patient’s barriers to care, additional communication, services and referrals between providers, health plans and social service agencies are required.
Understanding the Impact of SDoH

The majority of our lives are spent outside of the doctor’s office. Consumers often only visit medical providers for “sick care.” They miss preventive care visits and health maintenance procedures, such as immunizations and screenings for blood pressure, high cholesterol, cancer, type 2 diabetes, depression and others.

For consumers, healthcare is often ranked below other more immediate priorities. These more immediate health-related issues are as basic as access to healthy food and safe and stable housing. In addition, income and racial disparities significantly increase the likelihood of poor health outcomes. Together, these factors contribute to chronic stress and the resulting negative impact on physical and mental health.

While these social determinants of health typically fall outside the scope of most health plans, effective care cannot be delivered while ignoring them. Overcoming these barriers will require healthcare organizations to direct their efforts and resources towards addressing social inequities and removing obstacles that negatively impact care.

Common Barriers to Care

A closer look at SDoH reveals they span a full gamut, including economic stability, neighborhood and physical status, education level, food security and the level of community and social contact. Primary examples of SDoH include:

1. Economic Stability
   Employment and income concerns are likely to outweigh the need for preventive care. Expenses and debt can make paying for additional medical costs difficult or impossible. Many people in the U.S. do not have adequate housing. Concerns as basic as where they will spend the night take precedence over worries about their health or medications and any care required to manage their chronic condition.

2. Neighborhood
   The safety of the neighborhood or building where someone lives affects the likelihood of seeking health services to manage their chronic condition. The availability of amenities like public parks and neighborhood walkability directly influence an individual’s ability to maintain health. Seemingly unrelated factors such as the ZIP code where someone lives can indicate income and crime levels and are associated barriers to care.

3. Lack of Access
   Large numbers of the U.S. population live in areas where there is no public transportation and no other way to access care. Their only option is through 911 service and transport by ambulance, which is required to deliver the patient to an emergency room even in a non-emergency. If the patient has other health conditions or no other care options, he or she is likely to be admitted for an inpatient stay. Provider availability is another barrier, created when distance and the lack of public transportation prevent individuals from seeing a caregiver. Those seeking care resort to emergency room visits, which in turn drives up the cost of healthcare.

4. Education and Language
   Low education levels, illiteracy and language also create barriers that are difficult to overcome. Non-English-speaking individuals find barriers where language services are not available for those looking for essential information from healthcare or community services.

5. Health Literacy
   Most people do not understand how insurance coverage works, nor the difference between a deductible and an out-of-pocket maximum. Only 12 percent of the U.S. population is estimated to have proficient health literacy, while more than a third would have difficulty with common health tasks such as following directions on a prescription drug label or following other healthcare instructions.“
Establishing the Correlation Between Social Determinants and Health Outcomes

Research findings increasingly show the correlation between certain social factors such as income level and access to basic life necessities and resulting poor health outcomes, high morbidity and increased mortality rates.

Income Level

Not surprisingly, there is a strong correlation between income and health status. The lower the income level, the higher the likelihood to be sicker than average and for conditions to become exacerbated. As income increases for both men and women, the risk of having a health condition declines.

The correlation between income and health status is particularly concerning among Medicare and Medicaid populations. About 14 percent of adults age 65 and older live below the federal poverty level of $11,700. The poverty rate for people aged 65 and older increases progressively with age. Studies show that nearly half of senior citizens enrolled in Medicare have incomes of $25,000 or less, and are those most likely to have health conditions. When these conditions are not managed appropriately, they often worsen and result in hospitals admissions and increased costs.

The risk of having a health condition is highest among those with the lowest income
Access to Basic Life Necessities

Another study conducted by Milliman™ showed a correlation between individuals who reported concerns about or inadequate access to life necessities and their health. The study looked at members of a large Medicaid Managed Care organization, using claims data and engagement information from multiple years. Engagement messaging to these members had focused on social determinant and barrier questions, including reminders to keep a preventive health appointment and text, telephone or mailed messages asking about their health status, if they have food insecurity, transportation issues or economic issues.

The self-reported member data collected showed a correlation among those who reported problems with life necessities and lower health status. These individuals are:

1. More likely to use the healthcare system ineffectively.
2. Unlikely to receive all the care they need regularly or receive no care and end up in the emergency room.
3. Experiencing additional health problems due to exacerbation of a condition.

Addressing Social Determinants of Health

Government healthcare agencies, health plans and providers are all exploring various ways to identify those who are experiencing SDoH and to intervene across populations and with individuals.

An integrated approach to population health that includes risk analytics, multi-modal member engagement and a comprehensive care platform is needed to reduce costs, improve health outcomes and enhance the member experience.

When members were asked if they had concerns about life necessities, about 30 percent said they had “moderate” or “severe” concerns. These members were 2 to 3 times more likely to also report fair or poor health than those with little or no concern about life necessities.
Patient engagement initiatives have emerged as a fundamental component to identifying SDoH and to leverage resources in the community, from providers and payers to address them. While effective and practical solutions are available now, broader implementation is needed. Here are three ways to address social determinants of health:

1. Gathering Actionable Analytics

For a health plan to truly know its members, they must go beyond claims data analysis. Member engagement programs rooted in behavioral-science methodologies enable health plans to gather actionable insight and identify life circumstances beyond the models by:

- Developing strategies to assess and address social determinants of health, and have a direct and open dialogue with members.
- Asking members about access to life necessities such as food, shelter, and housing as well as access to transportation to get to doctor’s appointments.
- Assessing members’ mental and physical health changes and housing stability over time, as well as financial worries, caretaker stress, and their perceived ability to overcome problems and seek help when needed.
- Listening to their responses, and connecting them with plan and community resources that can help them overcome barriers to care.

Consistent identification and assessment of at-risk populations is needed. Just like health status changes, the social and environmental impacts change over time, regular assessments are needed to ensure care providers understand the various impacts to a patient’s life and how this may impact the care and service required.

By surveying health plan members via HMS Eliza’s interactive voice response technology, members can be asked if they had concerns about life necessities. Members identified as high risk can be offered an immediate transfer to a care manager. Often times these little fixes can have big impacts on someone’s life. For example, one member was flagged for transfer to a care manager who learned that the member was suffering from chronic back pain, exacerbated by an old mattress. The care manager worked with a local nonprofit that picked up the member and helped her get a new mattress within a week.

In addition, our data shows that people who reported concerns about life necessities (food, shelter, safety) were five times more likely to report having poor health, two-and-a-half times more likely to report their health negatively affecting their work, and eight times more likely to report high emotional stress. Among low-income populations, those who are dual-eligible for Medicaid and Medicare, have shown to have the most concerns about life necessities, followed by Medicaid enrollees and then Marketplace members, of which, about 85% are below 400% of the federal poverty level.
2. Leveraging Self-Reported Patient Data

One study has shown self-reports of prior utilization provide the greatest predictive capability for prospectively identifying individuals with high future healthcare needs, followed by health conditions and health-related quality of life. High-cost patients tend to have lower costs after they have been identified and treated for their condition.

Technology, such as artificial intelligence-based predictive analytics, permits leveraging data gained by engaging with patients for accurate risk intelligence. Risk intelligence and analytics solutions score the propensity for individuals likely to have barriers to care by identifying missed appointments, prescription usage and absence of preventive care visits.

This type of risk scoring takes all member data into account, allowing for more tailored care plans. Members can be prioritized for intervention based on a holistic view of their entire member profile.

These tools can also be used to predict SDoH factors that are impacting an individual’s healthcare. ZIP code analysis can yield valuable data about crime and income levels, which are indicators of care barriers. Correlations can be made that help identify the potential presence of a chronic condition. For example, individuals who report they are food insecure have a higher incidence of diabetes and hypertension.

The use of member surveys and assessments, coupled with claims data, can facilitate the detection of early activities and conditions associated with specific chronic diseases. In addition to chronic disease risk indicators, this data can also be used to create effective tactics for outreach to these at-risk members include through the use of live agents, automated phone calls, direct mail, email and text message.

Artificial Intelligence (AI), natural language processing and interactive voice recognition technology are just some of the technologies that health plans and government healthcare programs can leverage to better understand and interact with their members at scale. Outreach programs that include logical branches based on member responses can then connect members with resources directly, saving time and expense, while increasing member satisfaction.

To maximize results from member outreach conversations, consider the following best practices:

- Use multiple opportunities to collect SDoH responses from members throughout their tenure
- Monitor changes in responses over time
- Analyze member health behaviors in light of their responses
3. Driving Member Engagement

Once a socioeconomic issue is identified, healthcare payers can connect their members to resources and offer additional support to alleviate the conditions that are negatively impacting the members' health. Some examples include:

- Providing access to job training programs or career development opportunities
- Connecting members with transportation options to get to and from healthcare appointments
- Providing information about local food banks and nutrition sources
- Educating members about behavioral health services for those struggling with mental health conditions

By leveraging your existing care management solution, payers can offer immediate assistance by transferring members to a care manager or social worker. A study published by Population Health Management found that for health plan members who successfully connected with social services, their healthcare costs reduced by 10 percent or $2,443 annually per member.

Prioritizing the Solve for SDoH

We've passed the point where more evidence is needed to prove the relationship between socioeconomic factors and health outcomes, and are now at the point where early identification, screening and effective interventions and services are needed. There will need to be an enormous amount of communication and coordination among providers, health plans, community service organizations and government agencies, and we must come together to coordinate care and services to address social determinants.

Ensuring that all parties are working together can address the patients who are unseen due to lack of healthcare claims and social and physical isolation. Effective techniques and services are starting to be developed and implemented by health plans and government agencies, but with such a high impact on health outcomes and cost due to socioeconomic factors, do we need to do more?

Due to changes in reimbursement and the push towards value-based care practices, healthcare payers and providers are both critical players in addressing SDoH, and they are working hard to address these factors. It takes a village, however, and payers know they must build and strengthen relationships with providers and community resources to progress.
CASE STUDY:
An MCO Takes Action to Identify and Address SDoH

The Challenge
A large managed care organization (MCO), serving more than 300,000 Medicaid and Medicare Advantage members across multiple states, wanted to understand the life challenges that created barriers to healthcare for their members. Because this information can’t be found on an enrollment file or a medical claim, the MCO looked for solutions to help identify the social determinants of health (SDoH) among their members. Their goal was to provide members with access to support and resources from the plan and within the community.

Program Overview
The plan implemented a comprehensive, data-driven member engagement strategy by partnering with HMS Eliza that would provide critical insights into their population and improve quality.

The initiative implemented 25 to 30 custom-designed multi-channel programs focusing on health outcomes related to diabetes, heart health, medication adherence, dental health, post-hospital discharge care, preventive care and well-baby/well child initiatives. Each outreach incorporated a short assessment of socioeconomic barriers to care, including topics such as concerns about life necessities (food, shelter, and safety), physical and emotional impact on work and caregiving and the ability to overcome problems and seek help when needed.

The Results
The programs enabled personalized conversations with members and collected critical information so the MCO could identify individual needs and connect members to appropriate resources.

Through outreach, more than 30,000 members were assessed on social determinants of health, with extremely high completion rates. More than 90 percent of people who answered the first question, answered the last one.

When members were asked if they had concerns about life necessities, about 30 percent said they had “moderate” or “severe” concerns. These members were 2 to 3 times more likely to also report fair or poor health than those with little or no concern about life necessities. Members identified as high risk were offered immediate transfer to a care manager. More than 2,200 members took that transfer and were connected with valuable help and resources.

Armed with this level of member information, the MCO identified and supported members whose needs would have otherwise fallen through the cracks. For example, one member who suffered from chronic back pain was discovered to be sleeping on an old mattress that was exacerbating the pain. The care manager worked with a local nonprofit that picked up the member and helped her get a new mattress. Other members experiencing depression, homelessness and hunger were connected with care managers, healthcare providers, social workers and community resources.
SDoH Solutions for Your Program and Plan

Solving SDoH issues will be a complex, but worthy endeavor. Companies like HMS are building partnerships with payers to address SDoH through member data and engagement programs. Payers are finding that the HMS Total Population Management solution suite, offering risk intelligence, member health engagement management and a care management platform is a valuable resource in this important work.

As part of the solution suite, HMS Elli can identify key SDoH conditions and provide risk scoring and analytics that flag members who would benefit from interventions. HMS Eliza member engagement has shown that engaging healthcare consumers in personalized conversations motivates them to take action on their health to better manage chronic conditions, schedule wellness and well-child visits, receive regular examinations, maintain prescriptions and other health activities. In addition, the HMS Essette care management platform can help payers better manage utilization review and population health, while developing a full member profile. Implementing a comprehensive, integrated population health solution can be an important first step in effectively addressing socioeconomic issues that impact members’ health.

In order to overcome the socioeconomic barriers to care across the continuum, a comprehensive solution that addresses the full spectrum of healthcare challenges is needed. Population health solutions like HMS Total Population Management (TPM) are helping the healthcare community better align their efforts to reduce costs, improve health outcomes and enhance the overall member experience.

To learn more about how to identify and address social determinants of health, visit hms.com/health-ideas
About HMS

HMS advances the healthcare system by helping payers reduce costs and improve health outcomes. Through our industry-leading technology, analytics and engagement solutions, we save billions of dollars annually while helping health plan members lead healthier lives. HMS provides a broad range of coordination of benefits, payment integrity, care management and member engagement solutions that help move the healthcare system forward. Visit us at www.hms.com or follow us on Twitter at @HMSHealthcare.

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