WHITE PAPER

Motivation and Management: The Top 10 Myths About Social Determinants of Health

Value-based care is significantly influencing how healthcare organizations deliver care. Many health systems are struggling with care management, impeded by challenges related to readmissions, medication non-compliance, low motivation levels, and more. Healthcare organizations increasingly use social determinants of health (SDOH) data (i.e., information on an individual's education, economic situation, relatives and associates, assets, trends over time, and neighborhood and household characteristics) to predict and address care management challenges by identifying the social, economic, and environmental factors that influence health. This data is critical given the fact that at least 25 cents of every healthcare dollar is spent on the treatment of diseases or disabilities that result from potentially-changeable behavior if barriers to care were addressed.[1]

Over the last couple of years, healthcare organizations have leveraged SDOH data for predictive modeling, enabling these organizations to improve outcomes by zeroing in on who most needs help. Now, the industry is moving into an 'SDOH 2.0 phase' in which forward-thinking organizations are also looking for ways to incorporate clinically-validated SDOH data to personalize care interventions. EHR data, survey data, zip code-level data, and marketing data does not always paint a complete picture because the data can be outdated, or it may not tie directly to health outcomes. This myopic view causes healthcare organizations to miss opportunities to assist the patient in removing social, environmental, and economic barriers that may be preventing them from optimizing their health outcomes.

While the value of SDOH data is clear in terms of improving patient outcomes—and healthcare organizations are increasingly using it at the point of care to predict and address care management challenges—several misconceptions about its use and collection remain. To allow the healthcare industry to have success utilizing SDOH data, it is important to separate reality from myth on what socioeconomic data is and how it can best be used to help patients.

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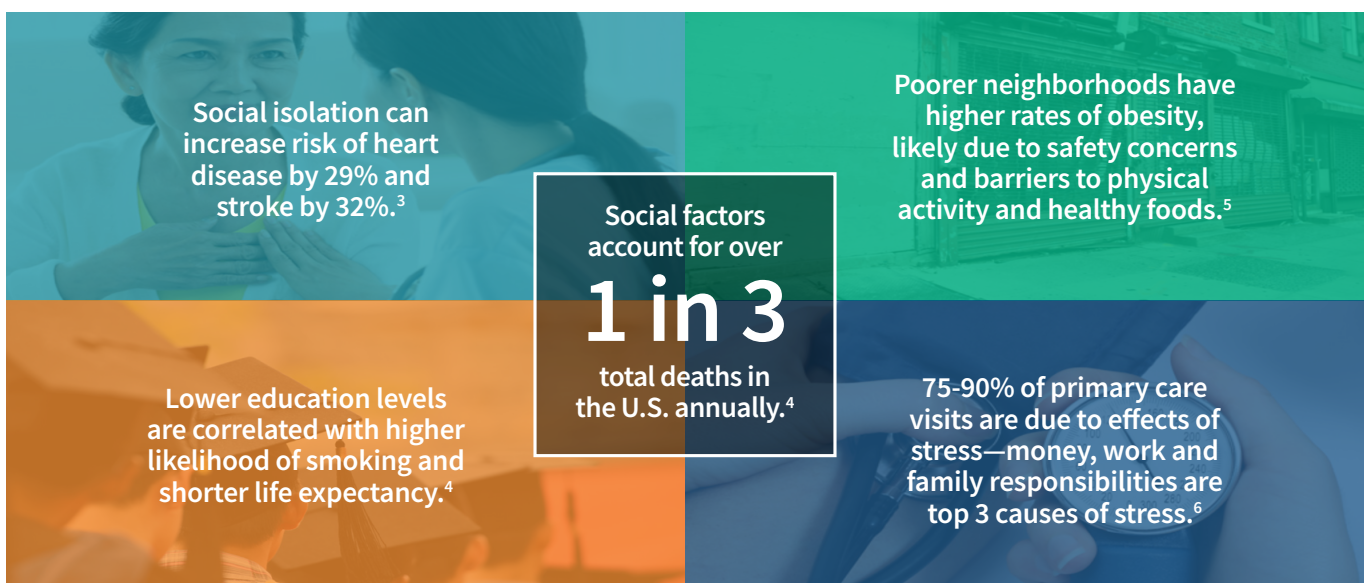
? MYTH

Socioeconomic data is just more noise in an already data-overloaded world.

TRUTH

Medical care determines only 20% of overall health while social, economic, and environmental factors determine 50% of overall health.[2]

Healthcare organizations cannot afford to ignore 50% of what determines patients' overall health outcomes. This information is critical in terms of care management and planning. The National Quality Forum, CDC, and WHO have all acknowledged the impact and importance of addressing SDOH. Various studies have also shown the impact that social determinants have on health:

Social isolation can increase risk of heart disease by 29% and stroke by 32%.[3]

Poorer neighborhoods have higher rates of obesity, likely due to safety concerns and barriers to physical activity and healthy foods.[5]

Social factors account for over

1 in 3

total deaths in the U.S. annually.[4]

Lower education levels are correlated with higher likelihood of smoking and shorter life expectancy.[4]

75-90% of primary care visits are due to effects of stress—money, work and family responsibilities are top 3 causes of stress.[6]

Innovative healthcare organizations are determining ways to incorporate socioeconomic data into their clinical care management workflows, eliminating the need for onerous surveys and subsequent error-prone manual data entries. When integrated as data alerts into EHR, pharmacy, population health and care management systems, or layered with specific predictive analytics models like a readmission risk or medication adherence score, healthcare organizations can make decisions and recommend care plans that are better suited for each patient's needs. Then, physicians, other medical staff, social workers, health coaches, pharmacists, or care coordinators can assist patients in addressing those needs, such as by referring them to community resources.

2

? MYTH

All data regarding a person's lifestyle, environment, situation, and behaviors relates to their social determinants of health.

⚖ TRUTH

While the data may be useful in some capacity, not all data on a person is a social determinant of health.

Although today's healthcare organizations have access to a myriad of basic demographic data and survey data, much of this data has limited potential for improving accuracy of predictive models or identifying additional costs and risks not otherwise revealed by traditional claims and clinical data. Instead, healthcare organizations need a clinically-validated SDOH data source that correlates with relevant health outcomes. The data must also be regularly refreshed and provided in a consistent format based on reliable sources.

Clinical validation is a critical element of successful predictive analytics because some data does not correlate strongly with health outcomes. In addition, each SDOH data element correlates to specific outcomes with varying degrees of predictability. Predictive accuracy is not just a matter of adding more data. Put another way, predictive accuracy is a science to determine which datasets enhance predictive power—and which simply add to the noise.

3

? MYTH

A patient's behaviors—rather than social determinants of health—have a bigger impact on their overall health.

⚖ TRUTH

Social determinants influence behaviors and therefore have a larger impact on overall health.[7]

Studies have shown that socioeconomic factors contribute more to health outcomes than behavioral factors do[8]—and it makes sense because social determinants are often the 'why' behind the behaviors. For example, exercising is an important behavioral determinant of health, so why does an obese patient not exercise? Social determinants can often explain it. If they live in a high crime area, it may be unsafe to exercise outside. If they have financial challenges, they may choose paying utility bills over a gym membership. If they don't have a strong social support system, they may not be motivated to get healthier.[9]

The behaviors are strongly influenced by circumstances. By addressing these social determinants of health, healthcare organizations enable better health outcomes by enabling patients to perform the right behaviors.

MYTH

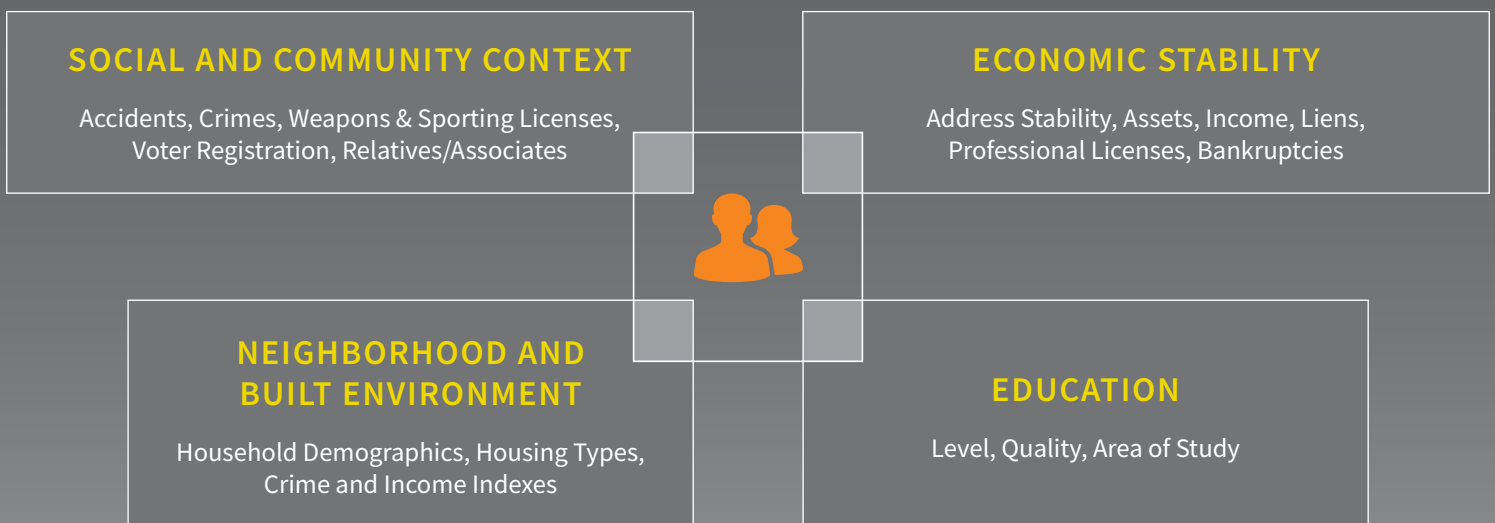Aggregated data at the zip code or census level can be used to personalize care for a patient.

TRUTH

Individual-level SDOH data is necessary to provide truly personalized interventions that improve health outcomes.

For broad population health management initiatives, market expansion, and resource allocation decisions, looking at an aggregated level can be a useful option. However, when personalizing patient care and identifying an individual's health risks, healthcare organizations must consider hundreds of SDOH data points specific to that individual. Within a single zip code, it is not unusual to see variance in income levels, crime rates, and other factors impacting an individual's neighborhood and built environment. This is why it is important to look at an individual's actual address. In addition, focusing on zip code alone ignores the influences of education, economic stability, and social and community context.

SOCIAL DETERMINANTS OF HEALTH ARE THE X FACTOR NEEDED TO IDENTIFY WHO NEEDS HELP AND HOW TO HELP THEM ACHIEVE OPTIMAL HEALTH

SOCIAL AND COMMUNITY CONTEXT

Accidents, Crimes, Weapons & Sporting Licenses, Voter Registration, Relatives/Associates

ECONOMIC STABILITY

Address Stability, Assets, Income, Liens, Professional Licenses, Bankruptcies

NEIGHBORHOOD AND BUILT ENVIRONMENT

Household Demographics, Housing Types, Crime and Income Indexes

EDUCATION

Level, Quality, Area of Study

5

? MYTH

The only way to obtain SDOH data is through surveys, home visits, or using demographic data.

⚖ TRUTH

Surveys and demographic data become outdated quickly, and home visits are not a scalable solution. Public records provide a wealth of regularly updated, scalable, comprehensive socioeconomic insights.

Healthcare organizations must leverage a significant volume of data to understand how a patient's social, environmental, and economic situation impacts their health outcomes. Demographic data is often too limiting or becomes outdated too quickly. Survey data is also not always reliable, as patients may not accurately reflect their situation, or they may skip parts of the survey. One recent study,[10] for example, concluded that self-reported diabetes medication adherence was lower than what researchers observed directly. Many of the patients reported consistently taking their medication but were actually non-adherent. Recognizing the challenges with demographic and survey data, some healthcare organizations rely on home visits to get a comprehensive view into a patient's social determinants. While this provides detailed information, it isn't scalable for large populations. To overcome the challenges inherent in using demographic, survey and home visit data, public records data provide a more reliable, scalable alternative that healthcare organizations can use to predict care management challenges and come up with a plan to address each patient's unique needs.

6

? MYTH

SDOH data is only useful in combination with clinical data.

⚖ TRUTH

SDOH data is valuable with or without clinical data.

Adding socioeconomic data to clinical data can help healthcare organizations personalize care and more accurately predict risk. Even in the absence of clinical data, using only socioeconomic data has proven to be useful. It can more accurately predict risk based on total cost than traditional age/gender predictions alone, and it has shown to be as—and sometimes more—accurate at predicting hospital readmission likelihood than certain clinical data models.[11] Socioeconomic data can also be used to predict who is likely to adhere to their medications, which is important to identify since poor medication adherence costs the U.S. healthcare system at least $100 billion in preventable medical costs annually.[12]

Social determinants data informs care plans in ways that clinical data can't by pointing out the barriers each individual may face to following care recommendations. It is important that care plans include recommendations that are affordable, easily accessible, and easily understandable so that patients will follow these recommendations.

Enhanced insights that utilize SDOH data enable healthcare organizations to prioritize resources to impact those most in need with a holistic care management plan.

Most organizations won't see a return on investment from addressing social determinants of health.

The long-term financial benefits far outweigh any upfront costs associated with addressing social determinants of health.

The United States spends more on healthcare than other developed countries, even though that does not translate into better health outcomes—the U.S. has worse life expectancy, mortality, and disease burden rates than many other countries. Interestingly, the United States also spends less than other countries on social services, even though social determinants have been correlated to health outcomes.[13]

The goal of addressing social determinants is to be proactive in preventing poor health conditions from developing or worsening in order to reduce overall costs. There are plenty of high-cost, low-value interventions such as MRIs for uncomplicated back pain that could be eliminated so that those funds may be allocated to low-cost, high-value interventions that address social determinants of health.

It is true that value-based care requires an enhanced approach to delivering care—one that focuses holistically on patient health and outcomes rather than volume of services rendered. For example, organizations may need to hire additional staff (e.g., health coaches or care coordinators) or train existing staff to provide patient education and support as well as connect patients with community resources that address social determinants. They may also need to provide funding to some of these community resources to support their efforts, such as providing funds to stock food pantries. However, these upfront costs lead to improved care delivery that ultimately yields valuable returns on the investment.

- It can lead to cost savings in the form of avoided claims for payers. For example, simply connecting members with gyms that offer income-based memberships may prevent those individuals from developing diabetes.
- It can lead to higher value-based rewards for pharmacies who achieve higher Star ratings. For example, patients without a social support system may need medications delivered to them to improve their medication adherence.
- It can help providers maximize reimbursements and minimize penalties under value-based care initiatives by improving the health outcomes of their patients. For example, connecting patients with ride-sharing programs so they can make it to their follow up appointments may prevent much more costly hospital readmissions.

These upfront investments combined with access to comprehensive and accurate SDOH data enable healthcare organizations to predict what care management challenges may arise so they can create care plans that address those specific challenges.

8

? MYTH

Examining only individual socioeconomic factors about a person will allow you to make accurate predictions about a patient's overall health risk.

⚖ TRUTH

Focusing on individual factors, rather than the combined picture, can be misleading.

When predicting barriers that create health risks and personalizing care management, it is crucial to view a person holistically across multiple categories of social determinants, ranging from social and community context to economic stability and education to neighborhood and built environment.

Any attribute on its own is not enough to develop an accurate understanding. By using a combination of relevant attributes, a more complete picture emerges. For example, low income often correlates with poorer health outcomes. However, low income plus college attendance may indicate that the low income is simply a temporary status. In this scenario, the patient is actually more likely to attain a better health outcome since education often leads to better career opportunities and a higher future income.

9

? MYTH

There are no ethical guidelines for healthcare organizations on how to use social determinants of health data.

⚖ TRUTH

In June 2019, the eHealth Initiative Collaborative published a set of ethical guidelines titled, *Guiding Principles for Ethical Use of Social Determinants of Health Data.*[14]

The eHealth Initiative is an independent, non-profit organization that convenes executives from various healthcare stakeholder groups to discuss, identify, and share best practices, which transform the delivery of healthcare. Consisting of over 50 healthcare stakeholder organizations, including LexisNexis, the eHi collaborative focused on educating and guiding industry stakeholders and policy makers on the value of leveraging SDOH data for maximum good in healthcare. The resulting ethical framework provides five guiding principles in the areas of:

• Care coordination

• Recognizing risk through social determinants of health analytics

• Mapping community resources and identifying gaps

• Service and impact assessment

• Customizing health services and interventions by using SDOH insights
  as a guide for quality discussions with patients about their care

For more information on these guiding principles, please visit www.ehidc.org/resources.

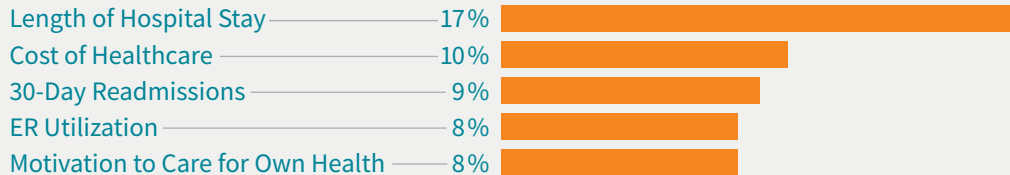Data designed for marketing is a reliable data source for accurately predicting health outcomes.

True SDOH data has been clinically validated against actual health outcomes to maximize predictive accuracy.

Many healthcare organizations make the mistake of buying into the idea that 'any data is better than no data' in terms of addressing social determinants of health. They gravitate toward marketing data because they may already have access to it. However, marketing data is designed to improve messaging during campaign outreach. Its purpose is not to improve health outcomes, target care interventions, and enhance predictive models. While marketing data and socioeconomic data may look similar at a categorical level, the underlying data sources can vary because of data regulations that prevent some sources being used for marketing. These sources, available for predictive risk and care management use cases, can make a significant difference in accurately predicting health outcomes. In an analysis performed by LexisNexis Risk Solutions where socioeconomic data was compared to marketing data, the socioeconomic data was as much as 17% more accurate in predicting health outcomes than marketing data alone.

Percent improvement in predictive accuracy: socioeconomic data versus marketing data alone

Length of Hospital Stay	17%
Cost of Healthcare	10%
30-Day Readmissions	9%
ER Utilization	8%
Motivation to Care for Own Health	8%

Conclusion

Once the myths are carefully reviewed and discarded, the conclusion becomes obvious: socioeconomic data can be a vital force for care management and improving health outcomes. Though SDOH data does not replace the value of medical data, it can be very powerful in the absence of medical data or as a supplemental data source to more comprehensively understand an individual's risk level.

Of all the data out there, the most valuable SDOH data offers the capability of deciphering what is truly relevant from a health outcomes perspective. The more healthcare organizations embrace socioeconomic data to understand the social determinants of their patients, the better able they are to tackle care management challenges head on and tailor comprehensive care plans that help patients succeed.

The ethical use of SDOH data is predicated on improving the health of individuals and providing the right interventions and services at the right time.

For more information, call 866.396.7703 or visit
risk.lexisnexis.com/healthcare

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[10] https://drc.bmj.com/content/4/1/e000182.full

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