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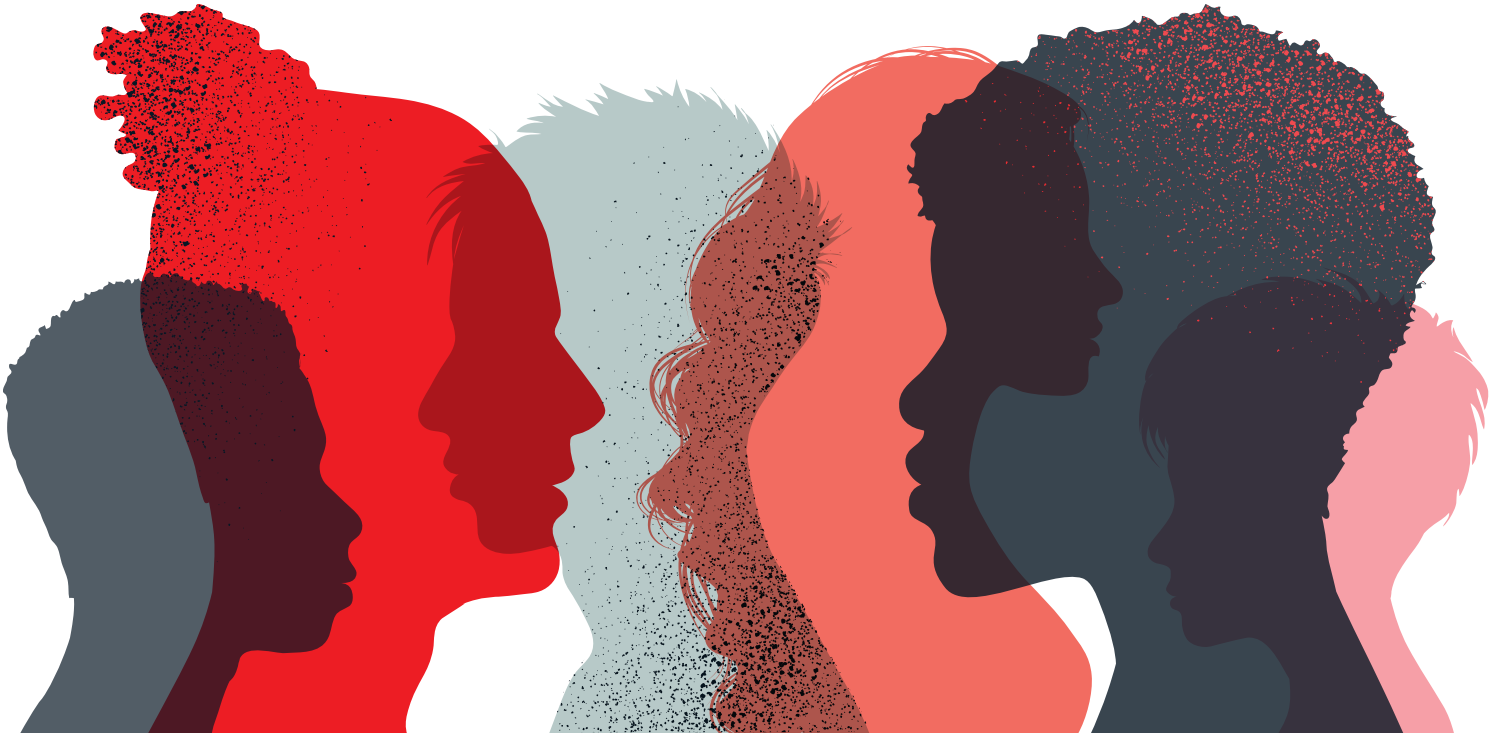
State of Health 2023 Spotlight

Social Determinants of Health



Investigating the extensive role non-clinical risk factors play in Americans' overall health

Overview

For health plans and providers seeking to reference a comprehensive view of a patient's overall health, their medical history reflects only a small fraction of the story. Research reveals that social determinants of health (SDoH)—a broad set of contextual, non-clinical health-related behaviors, socioeconomic factors, and environmental life circumstances—actually drive 80% to 90% of long-term health outcomes[1].

As healthcare stakeholders look to the year ahead, these non-clinical health risks represent an area of promise for their potential to revolutionize the way healthcare is delivered in America. When equipped with population-level data, analytics engines, and technology resources, health plans can make an outsized impact by working with providers and community-based resources to minimize risks that impact care episodes and overall outcomes.

In order to quantify the impact of social determinants of health (SDoH) on healthcare utilization, care episodes, and severity, Prealize's risk prediction engine analyzed millions of data points in late 2022. The analysis, based on a library of 154 non-clinical risk factors, reveals that SDoH play a significant role in overall health across insured populations and medical conditions.

In fact, the analysis shows that limited access to public healthcare correlates with more acute care utilization, including:

- More visits to emergency rooms
- More inpatient care episodes
- More acute musculoskeletal surgeries

This report explores these trends further, by focusing on four key areas: cardiovascular health, behavioral health, musculoskeletal health, and maternal health.

Methodology

For this initial spotlight report on the non-clinical drivers of health, Prealize Health analyzed a subset of its overall population data, which references 25+ sources of data, including: respondent level survey research sourced from 210+ health surveys; national consumer data for over 300 million lives; community data with insights into businesses, populations, and environmental health; and public health data with insights into coverage by payer type, national health literacy, and economic research.

To identify the social risk factors most likely to impact member health across large swaths of the population, Prealize ran a subset of its population against a library of 154 SDoH factors, to identify those that have the greatest impact on care utilization. Risks were assessed at the individual level and across a diverse and representative population, including individuals covered by Medicaid, Managed Medicaid, Commercial, and Medicare Advantage plans. In some cases, SDoH risks drove an increase in care needs or greater utilization volumes, whereas for others, risks created barriers to care, or lowered utilization rates.

1. Magnan, S. 2017. Social Determinants of Health 101 for Health Care: Five Plus Five. *NAM Perspectives*. Discussion Paper, National Academy of Medicine, Washington, DC. https://doi.org/10.31478/201710c

Impact on Cardiovascular Health

While research linking SDoH with cardiovascular disease is in its infancy, adverse SDoH are associated with a higher burden of CVD risk factors and poor outcomes[2]. Indeed, in its analysis, Prealize Health noted that non-clinical risk factors—such as limited access to care, poor physician relationships, and other socially contextual risks—are heavily associated with acute or emergency care needs for all insurance populations.

In 2023, health plans and providers should consider strategies that advance beyond addressing gaps in care and find ways to foster relationships between caregivers and patients/members. Healthcare stakeholders should look outside their clinical toolkits and help make social inroads that build trust, reduce isolation, and support community interconnectedness to ultimately encourage preventative and recurring care.

Social Determinant	Scale of Impact	Impact Finding	Insurance
Limited Fitness Access & Food Desert	**3.5x–7.5x**	Increase in overall CV utilization	All Types
Limited Pharmacy Access	**4.2x–5.4x**	Increase in overall CV utilization	All Types
Poor Quality of Physician Relationship	**5.5x**	Decrease in PCP visits for CV patients	Medicaid
	9.9x	Decrease in PCP visits for CV patients	Medicare
	16.5x	Decrease in PCP visits for CV patients	Commercial
High Risk of Isolation	**2x–9.6x**	Decrease in in-person PCP visits for CV patients	All Types
Lack of Transportation	**15x**	Decrease in PCP visits for CV patients	Medicare
	20x	Decrease in PCP visits for CV patients	Commercial
Limited Public Access to Healthcare Facilities	**10x–11.5x**	Increase in emergency care utilization for CV patients	All Types

Takeaway

There are myriad steps that proactive plans and providers can take to help address the repercussions of SDoH on cardiovascular utilization.

- **At the individual level**, providers can ask caring questions that address a broader context of care, such as recent illnesses (including COVID-19), financial stability, and access to affordable, nutritious foods. Not only will this help provide a more comprehensive patient profile for care plans, but it will help build the kind of loyalty and trust that encourages repeat preventative care and screenings.
- **At the community level**, health plans can partner with local government and community groups to establish programs that engage individuals civically and at a local level. For instance, weekly, sponsored social events designed to appeal to certain high risk groups can help dispel the type of social isolation that limits individuals' willingness to seek treatment.

2. Jilani MH, Javed Z, Yahya T, et al. Social Determinants of Health and Cardiovascular Disease: Current State and Future Directions Towards Healthcare Equity. Curr Atheroscler Rep. 2021;23(9):55. Published 2021 Jul 26. doi:10.1007/s11883-021-00949-w

Impact on Behavioral Health

The pandemic served as an accelerant for America's pre-existing behavioral health crisis, intensifying the need for services and limiting access to quality care. Of all non-clinical risk factors included within Prealize Health's analysis, food security emerged as the most outsized influence on behavioral health utilization.

For all non-Commercially insured populations, limited access to healthy, nourishing, and affordable foods was strongly associated with increased utilization for behavioral healthcare services (associated with a 38 to 206-fold increase, across populations). For health plans and providers seeking to address non-clinical drivers of behavioral healthcare, partnership with community-based food banks and other non-profit organizations can help make the biggest difference for high use individuals.

Social Determinant	Scale of Impact	Impact Finding	Insurance
Food Desert	**38x**	Increase in BH utilization	Medicare
	78x	Increase in BH utilization	Managed Medicare
	206x	Increase in BH utilization	Medicaid
Limited Access to Care & Transportation	**7x–10x**	Increase in emergency care utilization for BH patients	Medicare, Managed Medicare
Poor Physician Relationship	**6x**	Decrease in PCP visits for BH patients	Medicaid
	9.5x	Decrease in PCP visits for BH patients	Medicare
	15.5x	Decrease in PCP visits for BH patients	Commercial
Transportation Risk	**5.8x**	Decrease in in-person BH visits	Medicare
	23x	Decrease in in-person BH visits	Commercial

Takeaway

The analysis reveals that individuals living in food deserts experience a heightened risk of behavioral health challenges. When embracing proactive behavioral health strategies, health plans and providers may want to focus on patients living in these geographic areas.

- **At the individual level**, health plans and providers can help screen for nutrition quality and ready access to nourishing, complete meals. For those at risk, stakeholders can partner with local food banks and community centers to help provide hot meals, access to community fridges, or food-based financial subsidies.
- **At the community level**, health plans can advocate with local businesses and government stakeholders to help advance policy that incentivizes grocery stores and supermarkets in underserved areas. Developing ties with national non-profits that specialize in delivering nutrient-dense food to local food banks can also serve as excellent stopgap measures.

Impact on Musculoskeletal Health

Musculoskeletal injury can impact people of all ages, and may often result in drastic interruptions to job security, career development, financial security, and other crucial factors of daily life. In Prealize Health's analysis, access to public healthcare facilities, primary care providers, and reliable transportation were the biggest non-clinical drivers of musculoskeletal risk, with widespread effects noted across insurance types.

In 2023, health plans and providers should consider investing in both their patient education libraries and orthopedic/physical therapy provider directories. The data suggests that stakeholders who make healthcare information accessible, digestible, and engaging—and highlight a diverse provider cohort—can make inroads with patients who would benefit from preventative care and physical therapy.

Social Determinant	Scale of Impact	Impact Finding	Insurance
Public Healthcare Access	**13x**	Increase in costly medical encounters	Medicaid, Managed Medicaid, Medicare
	14.6x	Increase in costly medical encounters	Commercial
Limited Access to Fitness & Recreation	**3x–6x**	Increase in emergency & inpatient care, and MSK surgery rates	All Types
Poor Physician Relationship	**5.4x**	Decrease in PT appointments	Medicaid
	16x	Decrease in PT appointments	Medicare
	18x	Decrease in PT appointments	Commercial
Health Literacy	**7.7x**	Decrease in PT appointments	Medicare
	23x	Decrease in PT appointments	Commercial

Takeaway

A broad array of SDoH bears impact on musculoskeletal health and overall utilization, from access to care, availability of recreational facilities, health literacy, and trusted physician relationship.

- **At the individual level**, health plans and providers can focus on encouraging participation in preventative or recovery services, such as physical therapy. By incentivizing routine maintenance, stakeholders can encourage individuals to build routines that promote healthy muscle function, rehabilitation, and prevent readmissions and costly revisions.
- **At the community level**, health plans can consider partnering with local gyms and recreational facilities to help expand access to recreation—and incentivize regular use among its member base. Simultaneously, investment in comprehensive patient education services that boost health literacy and help build trust with caregivers will help encourage adherence to care plans that prioritize recovery and long-term health.

Impact on Maternal Health

As America's maternal morbidity and mortality rates continue to worsen, health plans and stakeholders are rapidly adopting proactive care plans that consider expecting mothers' overall health profile, including SDoH, pre-existing conditions, and other risk factors[3].

The Prealize analysis reviewed the impact of 154 SDoH risks on maternal complications, including pregnancy with complications, extreme prematurity at birth, and significant neonatal complications. Notably, the Medicaid population felt the consequences of SDoH risks most acutely, with the most impactful factors being: hospital and emergency care access (7-fold increase in utilization), financial stressors (6-fold increase), primary and public healthcare risk (6.6 and 10-fold increases), and transportation access (9-fold increase).

Social Determinant	Scale of Impact	Impact Finding	Insurance
Limited Access to Primary Care & Public Healthcare	**7x–8x**	Increase in emergency care	Medicaid
Transportation Risk	**7x**	Increase in emergency care	Medicaid, Commercial
Financial Stressors	**6x**	Increase in emergency care	Medicaid
Poor Physician Relationship	**5.8x**	Decrease in PCP visits	Medicaid
	16x	Decrease in PCP visits	Commercial
Health Literacy	**7.7x**	Decrease in PCP visits	Medicaid
	23x	Decrease in PCP visits	Commercial

Takeaway

The Medicaid population experiences the most consequences of SDoH risks related to maternal care. In this analysis, the national expansion of maternity care deserts is reflected in the outsized impact of access to care on the Medicaid population. To help address this urgent crisis, plans and providers must develop collaborative strategies that advance evidence-based standards of care and provide proactive outreach, support, and educational resources.

- **At the individual level**, health plans and providers can expand their definition of reimbursement care team members by inviting doulas, midwives, and other patient advocates into the clinical setting. These trusted and often racially concordant caregivers can help advance patient literacy, support expecting mothers' healthy habits, and promote healthy, full-term deliveries.
- **At the community level**, Medicaid plan stakeholders can help advocate for a full continuum of care that begins at positive test and extends for a full year postpartum, to ensure adequate prenatal care, healthy deliveries, and proactive postpartum visits that ensure healthy newborn milestones and help new mothers adjust and thrive.

3. Hoyert DL. Maternal mortality rates in the United States, 2020. NCHS Health E-Stats. 2022. DOI: https://dx.doi.org/10.15620/cdc:113967

Disrupting the Status Quo:

Experts Reveal the Key to Addressing Health Inequities in 2023

As healthcare organizations mobilize to address widening health disparities, stakeholders will need to transform healthcare delivery in the process. To disrupt the status quo, a new standard of collaborative, data-driven, "whole person" care will emerge. Here, four experts weigh in.

It all boils down to not just claiming, but proving to individuals that you truly care about their health and long-term vitality. To build that proof and associated trust, patient and member engagement is more important than ever before. Unless your members really trust you, they won't share the critical information that you need or maintain ongoing open lines of communication. Without that foundational trust and ongoing dialogue, intervention efforts are doomed to fail. **Buy-in from the people you serve begins with demonstrating why you are a worthy steward of their lives and how you add value."**

– RON PAULUS, MD,
President, Maribel Health and Executive in Residence, General Catalyst

In many ways, we have charted a path forward. For too long we have put the onus on the member or patient to share information, to show up for appointments and screenings, and to integrate episodic care into their life. We know that is failing, and in the past we called it 'non-compliance.' **With SDoH data and the focus on providing risk-based or value-based care, we are finally moving towards 'whole person' healthcare** *with feasible, incremental lifestyle changes that truly impact health outcomes."*

– NIGAM SHAH,
Chief Data Scientist, Stanford Health Care

Now that we know how influential SDoH are, we have a responsibility to normalize social risks as risk factors within patient or member health records. *To truly help manage care for high-risk populations, plans must be able to account for and help clinical and social service providers address their members' nutrition, housing stability, transportation, language, access to education, and prevalence of trauma, such as adverse childhood encounters (ACEs)."*

– RISHI MANCHANDA, MD, MPH,
CEO of HealthBegins

Understanding SDoH can help case managers and clinical teams act proactively to address health inequities. Without a comprehensive picture of member care, we are essentially making recommendations in the dark. **In 2023, I hope to see increased collaboration between payers and providers to promote transparency** *that informs transitions of care and helps ensure vulnerable members receive the support they need for high-quality care that drives outcomes."*

– KRISTIN GASTEAZORO, SVP,
SmartShopper Sales & Client Performance at Zelis

Conclusion

This spotlight report helps illustrate the significant role that social determinants of health have upon the overall health and well-being of individuals across insurance populations and conditions. The data reveals strong correlations between non-clinical risk factors and health outcomes, underscoring the need to advance a more holistic approach to care delivery. Whether patients live near food deserts, are without ready access to public healthcare facilities, or lack access to convenient, reliable, and affordable transportation, their ability to access the preventative and chronic care services they need is at risk. Across the board, the results illustrate the entrenched connection between each of these risk factors and a heightened reliance upon acute care services, including emergency room visits and costly inpatient care episodes.

Prealize Health's AI-powered platform equips its health plan partners with an array of these actionable insights that can help address health disparities, advance standards of care, and reduce avoidable care utilization. With precision SDoH modeling at both the aggregate and individual levels, Prealize's Health Equity platform helps unearth the root causes of health disparities that drive unwarranted variations in care. By actively identifying gaps in care, health plans can proactively improve their care quality ratings while markedly impacting members' quality of life.

While today, most healthcare organizations are in the early stages of designing and launching their SDoH programs, the data illustrates the need for health plans, policymakers, population health advocates, and others to advance adoption of these data-driven strategies. By helping to address social factors that contribute to poor health outcomes, health plans have a chance to transform healthcare delivery and make an outsized impact on the overall health and well-being of Americans nationwide.

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About Prealize

Prealize marries state-of-the-art AI-enabled data science with "next-best action" health insights. Based in San Francisco, California, the company was founded by two industry thought leaders from Stanford University. Committed to transforming healthcare from reactive to proactive, reducing healthcare costs and enabling more people to live healthier lives, Prealize partners with health plans, specialty care management companies, healthcare technology companies, employers, and providers across the nation to positively influence the health trajectory of millions of people.

For more information, visit www.prealizehealth.com or email info@prealizehealth.com.

APPENDIX – Spotlight Key

For this analysis, the primary social determinants tracked were defined as follows:

Community Food Access Risk: Proximity to market area with low to no community food access.

Doctor Relationship Risk: Describe their relationship with their physician as poor.

Fitness and Recreation Access Risk: Proximity to market area with low to no fitness and recreation access.

Food Desert Risk: Proximity to market area with low to no grocery or healthy foods access.

Health Informed Risk: Do not feel informed about their health or do not research healthcare treatment options.

Hospital and Emergency Care Access Risk: Proximity to market area with low to no access to hospital or emergency care facilities.

Household Expenses Risk: Likely to have high levels of total household expense relative to household income.

Isolation Risk: Strongly feel very alone in the world or agree with at least two of the following statements: do not stay connected with friends and acquaintances; meeting people does not come easy; making friends is difficult; do not have acquaintances from all walks of life.

Mental Health Care Access Risk: Proximity to market area with low to no mental health care access.

Pharmacy Desert Risk: Proximity to market area with low to no pharmacy retail access.

Primary Care Access Risk: Proximity to market area with low to no primary care access.

Public Healthcare Access Risk: Proximity to market area with low to no public healthcare access.

Transportation Access Risk: Proximity to market area with low to no transportation access.

Transportation Risk: Do not have a vehicle and have taken no mode of transportation in the past week or have not traveled at all.