What are Social Determinants of Health?

Social Determinants of Health (SDoH) refer to the conditions in which people work, live, and age, and are significant contributors to individual health, accounting for up to 55% of overall health and wellbeing. Healthcare policies and external benchmark agencies are increasingly promoting the incorporation of SDoH into medical treatment and oversight, with notable provisions from The Joint Commission and the Centers for Medicare and Medicaid Services. Given these factors, health systems should expand their work in SDoH by conducting standard screenings for health-related social needs (HRSNs), establishing system-wide goals and metrics related to SDoH, and implementing data-driven interventions. Despite hospital-based changes, it is important to note that HRSNs are the downstream effects of population-level SDoH. Without effective SDoH policy that incorporates a Health in All Policies (HiAP) framework, individual HRSNs will continue to persist.

While many health systems are interested in addressing the negative effects of SDoH, most hospital-based interventions for SDoH focus on individual Health-Related Social Needs (HRSNs). SDoH and HRSN are sometimes used interchangeably, but it is important to understand how they are related (see Figure 1). SDoH is a population-based measure, and the same SDoH factors can promote health in certain groups and cause harm in others. For example, consider two people who visit the same clinic; one person with health insurance and paid sick time provided by their employer, and another without insurance and no paid time off. While both individuals have access to the same hospital (the SDoH domain of Healthcare Access), the second person has more limited coverage and may need help with applying for Medicaid and other federal/state benefits. The lack of healthcare coverage experienced by the second person can be described as a social risk factor, a condition that negatively affects one’s ability to maintain their health and wellbeing. Finally, the
need that arises due to this social risk factor, in this case needing help acquiring Medicaid, is an HRSN. HRSNs are the downstream effects of SDoH, and examples include needing safe, clean housing and healthy, nutritious food.\textsuperscript{2} Many studies have demonstrated the effects of SDoH and HRSNs on health conditions, like cancer, heart disease, diabetes, and COVID-19, and on healthcare outcomes like surgery recovery, vaccination rates, and medication adherence.\textsuperscript{4-13} SDoH contributes to these poor outcomes through several mechanisms, including:

- Affecting access to appropriate treatment (e.g. based on educational attainment, limited finances, lack of resources in the community, insurance status, and limited English proficiency).\textsuperscript{9-10}
- Limiting ability to adhere to medication/treatment regimens (e.g. due to lack of food and stable housing).\textsuperscript{7}
- Burden of illness worsening pre-existing SDoH conditions (e.g. illness leading to job loss further confounding a person’s ability to secure housing and treatment).\textsuperscript{5}

The Effectiveness of SDoH Interventions.

Interventions that address HRSNs have demonstrated great success in improving patients’ health. For example:

- Researchers found that hospital-provided legal assistance for patients with uncontrolled asthma living in poor housing conditions, contributed to a 91% decline in emergency visits and hospital admissions, with 92% of these patients seeing improvements in asthma severity.\textsuperscript{14}
- One study of diabetes and hypertension treatment for patients in Kenya, found that incorporating economic stability- and social connection- boosting practices (two SDoH domains) led to a 44% greater reduction in blood pressure than care as usual.\textsuperscript{15}
- Another study found that recipients of a substance use treatment program incorporating ten weeks of peer support focused on SDoH, showed significant improvements in their occupational, intellectual, and financial wellness.\textsuperscript{16}

In 2023, researchers at several prominent academic institutions (including NYU Langone Health, Columbia University, and Johns Hopkins) were awarded an American Heart Association grant to establish the \textit{RESTORE Network}, a multi-site network of trials that incorporate community-based approaches and SDoH interventions to promote hypertension prevention.\textsuperscript{17} The RESTORE Network is currently evaluating several evidence-based interventions including the integration of community health workers to counsel on lifestyle and health, screening at-risk populations for cardiovascular issues in community spaces, and deployment of mobile health units to communities of greatest need.\textsuperscript{18-20}
Healthcare Policies related to SDoH.

Given its pervasive effects, national policies and healthcare oversight agencies are increasingly incorporating SDoH; including provisions that support screening patients for HRSNs and providing services to address patient needs:

1. As of January 1st, 2023, The Joint Commission has released several updates, including new performance metrics related to screening and support for patient HRSNs, and a voluntary Health Care Equity Certification Program.²¹,²²

2. In recent years, the Centers for Medicare & Medicaid Services (CMS) incorporated SDoH into its ‘Framework for Health Equity’, announced SDoH-related z-codes, issued a new payment rule for increased payment for stays involving unhoused patients, and updated their Physician Fee Schedule to include SDoH-related services.²³-²⁵

3. In January 2024, NYS announced that CMS approved its Medicaid 1115 Waiver, promising $7.5 billion over the next 3 years to advance health equity, reduce health disparities, and strengthen access to primary and behavioral health care services.

Recommendations for Health Systems.

SDoH plays a significant role in individual health and is increasingly prevalent in external policies for healthcare. Therefore, it is critical that health systems make changes to embed SDoH into operational and clinical processes. Using the Health Equity Research Roadmap established at NYU Langone Health as a model, we propose that SDoH can be anchored into a learning healthcare system through a mix of clinical care, education, research and community partnership.²⁷

1. Collect accurate data on patient HRSNs.
   The first step in understanding the impact of SDoH in your patients is to ask about HRSNs. Systems should consider leveraging electronic health record systems to embed questions on HRSNs into existing operating procedures such as patient facing questionnaires, self-check in kiosks and data collection via patient portals. Training staff on the importance of SDoH and best practices for patient-centered communication can reduce stigma of reporting and facilitate the collection of accurate HRSN data. Setting benchmarks to incentivize departments to capture accurate data and monitor progress may also be helpful.

2. Use a data-driven approach to identify HRSNs in the patient population. Leveraging standard HRSN screening processes and the benefits of digital collection, real-time data on HRSNs should be collected and compiled in a central location. Health systems could employ the use of a data dashboard to easily slice HRSN data by patient demographics and departments, using this to identify gaps and trends in the collection of SDoH information.
3. **Establish performance/metric-based SDoH goals and measure progress.** Create system wide goals related to HRSNs and SDoH data. We recommend using the SMARTIE framework and conceptualizing goals as Strategic, Measurable, Ambitious, Realistic, Time-bound, Inclusive, and Equitable (SMARTIE).\(^{28}\) Example goals could be related to increasing screening rates in certain departments, or decreasing positive screens (by implementing an SDoH intervention) in certain patient groups.

4. **Identify common patient HRSNs and explore upstream SDoH.** Health systems can use aggregate HRSN and health outcomes data to identify high risk patients and groups that are disproportionately affected by SDoH. Healthcare systems can extrapolate further and pair these individual- and hospital-level data with neighborhood-level data, employing a population health approach to understanding SDoH trends.

5. **Develop and implement evidence-based solutions.** Healthcare systems should act on the adverse impacts of SDoH highlighted in Step 4, and design interventions to target SDoH. The goal of asking about HRSNs is to help patients and incorporating steps to address patient needs may require updated workflows that facilitate communication between healthcare team, patients, and community resources. Furthermore, metrics related to these interventions should be continuously monitored for impact and improvements to ensure successful referrals occur.

### Recommendations to Address the Social Determinants in Policy.

HRSNs are the downstream effects of SDoH, and without addressing the upstream population level SDoH, health disparities will continue to persist.\(^3\) This is challenging given population level SDoH is pervasive, affecting multiple areas of life like economic stability, neighborhood conditions, food and nutrition, social connections, and healthcare access.

Upstream SDOH needs to be addressed through public health and prevention policies that improve community conditions, address structural racism, and enhance data infrastructure before individuals see the impact as downstream HRSNs.\(^{29}\) We recommend that effective SDoH policy should incorporate a Health in All Policies (HiAP) framework; a collaborative approach that acknowledges that health outcomes are influenced by a wide range of factors beyond healthcare, and integrates health considerations into policymaking across various sectors.\(^{30,31}\)

Public health departments are uniquely situated to utilize an HiAP approach; they gather data from multiple sources, identify gaps in services, build collaborations across sectors, identify non-medical drivers of health in communities, and help address policies that inhibit health. Congress can pass legislation to increase public health’s capacity to fully address SDOH priorities. For example, Congress can authorize the Director of the Centers for Disease Control and Prevention (CDC) to carry out a Social Determinants of Health Program (Improving Social Determinants of Health Act of 2024, H.R.7481/S.3847 in the 118th Congress). The program would:

- Allocate $100 million per year for the CDC to maintain and grow a program to improve health outcomes and reduce health inequities by coordinating CDC SDOH activities and improve capacity of public health agencies and community-based organizations to address SDOHs.\(^{32}\)
- Award grants to state, local, territorial, and Tribal health agencies and organizations to address SDOHs in target communities.\(^{32}\)
- Award grants to nonprofit organizations and institutions of higher education to conduct research on SDOH best practices; provide technical assistance, training, and evaluation assistance to target community grantees; and disseminate best practices.\(^{32}\)
• Coordinate across CDC to ensure programs consider and incorporate SDOH in grants and activities.\textsuperscript{32}
• Coordinate, support, and inform SDOH activities across the Department of Health and Human Services.
• Collect and analyze data related to SDOH activities.\textsuperscript{32}

Given the HiAP approach, Congress can also pass key legislation to address the following SDOH areas:

• **Economic Stability**: Bolster federal programs to support the construction and preservation of affordable housing.\textsuperscript{33}

• **Neighborhood and Environment**: Establish a Green New Deal for Health to prepare and empower the health care sector to protect the health and well-being of our workers, our communities, and our planet in the face of the climate crisis (Green New Deal for Health Act, \textit{H.R.2764/ S.1229} in the 118th Congress).\textsuperscript{34,35}

• **Food & Nutrition**: Improve access to affordable, nutritious food near where people live and work (upstream) and remove barriers to the Supplemental Nutrition Assistance Program (SNAP) access including SNAP’s existing work-reporting requirement (downstream).\textsuperscript{36,37}

• **Community & Social Context**: Provide paid family and medical leave benefits (FAMILY Act, \textit{H.R.3481/S.1714} in the 118th Congress)

• **Healthcare Access**: End preventable maternal mortality, severe maternal morbidity, and maternal health disparities in the United States (Black Maternal Health Momnibus Act, \textit{H.R.3305/S.1606} in the 118th Congress)

**Conclusion.**

SDOH is a population-based measure referring to significant domains of life that can affect wellbeing (e.g. economic stability, neighborhood conditions, food and nutrition, community and social connections, and healthcare access and quality). SDoH effects are significant drivers of health, exacerbating the burden of illness for patients across diagnoses, and disproportionately affecting historically underserved populations. Addressing SDoH is necessary to providing equitable care, and external recommendations and national health policies are increasingly incorporating SDoH and related HRSNs.

Despite being the downstream effects of SDoH, addressing HRSNs are an opportunity to advance health equity; with hospital-based inventions improving patient health and reducing use of costly emergency services. To take advantage of these positives, we recommend that healthcare systems embed HRSNs into their workflows and outline a process for the utilizing a data-driven approach to implement HRSN-interventions.

Still, HRSNs will continue to persist if the underlying SDoH is not addressed; a challenge given the pervasive and interactive nature of population-level SDoH. We encourage policy makers to adopt a Health in All Policies (HiAP) framework, an approach that integrates health considerations into policymaking across various sectors in addition to healthcare. HiAP is essential to enacting effective SDoH policy, and policy makers should focus on regulations that bolster community health, reduce barriers to access, and push for funding revenues that support the partnership of health systems with community-based organizations.
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