



SOCIAL INFLUENCERS:

The Role of Social Determinants of Health in Injured Worker Recovery



Fast Focus:

This introduction to our Social Determinants of Health (SDoH) Article Series defines the key areas comprising SDoH, how they intersect with workplace injury and recovery, and recommendations for how claims organizations can gain more visibility into SDoH influencers on an injured worker and associated claim.

Visibility into psychosocial and mental health factors – and the influence they have on work-related injury and recovery – continues to be a key area of focus for workers' compensation stakeholders. More than a third of respondents to the Workers' Compensation Industry Insights Survey, conducted by Healthsystems in partnership with *Risk & Insurance*®, identified psychosocial factors as a barrier to injured worker recovery. And respondents as a whole ranked psychosocial factors and/or social determinants of health as the #3 component of workers' comp claims management into which they want more visibility.¹

While a significant component of psychosocial factors includes psychological factors such as anxiety, fear avoidance, catastrophizing, or depression, perhaps even more nuanced are the social components – the factors that aren't defined in the DSM-5, that don't have an ICD-10 code, and which can't be addressed through medical treatment.

In our Social Determinants of Health Article Series, Healthsystems will spotlight several SDoH that impact injury and recovery, with a goal of answering these questions:

What are social determinants of health (SDoH)?

How do SDoH intersect with management of the injured worker?

What are some specific examples of how SDoH can impact workplace injury and its recovery?

How can workers' compensation stakeholders gain more visibility into SDoH among injured worker populations?

SOCIAL BARRIERS TO RECOVERY

Social determinants of health, as defined by government organizations including the Centers for Disease Control and Prevention² and the U.S. Office of Disease Prevention and Health Promotion,³ are the conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of-life risks and outcomes. More broadly, this is inclusive of factors such as access to quality healthcare and education, economic stability, social and community dynamics, and an individual's environment.

While we have long been aware of SDoH, there has been a continued increasing focus on them, and specifically efforts toward incorporating strategies that measure and address them in the broader healthcare ecosystem. In early 2021, the Centers for Medicare & Medicaid Services (CMS) issued guidance to states on adopting strategies that address social determinants of health in the Medicaid and Children's Health Insurance Program (CHIP).⁴ In February of 2022, CMS also began soliciting feedback on SDoH-related measurement concepts to include the development of a Health Equity Index as an enhancement to the Part C and D Star Ratings program, as well as a measure to determine how well plans are screening members for health-related social needs like food, housing and transportation needs.⁵

The impact of these issues on overall health outcomes has been well documented. It is often cited that medical care accounts for only approximately 10-20 percent of the modifiable contributors to healthy outcomes, and SDoH comprise the other 80 to 90 percent.⁶

This can feel like a defeating statistic, given the resources and effort put into developing medical management strategies intended to ensure injured workers are getting appropriate, cost-effective care that will position them for a successful recovery. It's a reminder that when it comes to patient care, there are rarely any guarantees or straight paths. Individuals are complex, and while the scope of workers' compensation is focused on managing the work-related injury, that injury is part of a person, and that person brings inherent and unique complexity that can't be separated out.

Indeed, injured worker behavior and/or nonadherence to treatment was identified as the #1 barrier to recovery in the industry survey¹ – and behavior is in large part driven by social and environmental constructs.



And while any SDoH has the potential to influence workers' compensation outcomes in the same way they influence broader health outcomes, some may be especially impactful to injured worker recovery and/or services utilized in the course of their care. Does the worker have the emotional support they need at home to stay engaged and motivated in their care and recovery? Do they have the transportation they need to attend a scheduled medical appointment? Is there a substance use disorder present that a provider should consider when making prescribing decisions, especially regarding opioids or other controlled medications that pose risk for dependence, addiction or misuse? Or, do the conditions at their workplace present a higher risk that they will be injured in the first place, or potentially reinjured upon return to the workplace?



Injured worker behavior and/or nonadherence to treatment are viewed as the #1 barrier to recovery – and behavior is in large part driven by social and environmental constructs.

EXAMPLES OF SDOH INTERSECTING WITH WORKERS' COMP



Ambulatory Barriers

(e.g. wheelchair, assistive device, limited mobility)

Does the injured worker live in a dwelling that accommodates their mobility challenges? Do they need and/or are they receiving physical assistance from a family member?



Food Insecurity

Does the injured worker have access to reliable, nutritious food to support their health?



Language Barriers

Is there a language barrier that degrades health literacy or communication with their care team?



Social Isolation

Are they lacking the support they need to stay engaged and motivated in their recovery?



Victim of Crime/Violence

Are they exposed to violence in their home or neighborhood that will negatively impact their recovery?



Substance Abuse

Is there a substance disorder present that should be considered in the prescribing and monitoring of medications for their work comp injury?



Transportation Barriers

Do they have access to reliable transportation to attend scheduled care appointments?



Living Conditions

Is their living environment conducive – physically, mentally and emotionally – to healing and recovery?



Employment Status

Is there trust in the relationship with the injured worker's employer that is conducive to transparency and communication? Does the injured worker's job status (employed vs unemployed) positively or negatively impact their self-esteem or alleviate/add financial stress?

As stakeholders in the management of injured workers, what can we do to address these barriers? To begin, we can be aware of the context. We can find ways to identify when social barriers exist, and understand how they may subsequently present barriers to recovery, so that we can partner together to overcome them.

ACHIEVING BETTER VISIBILITY

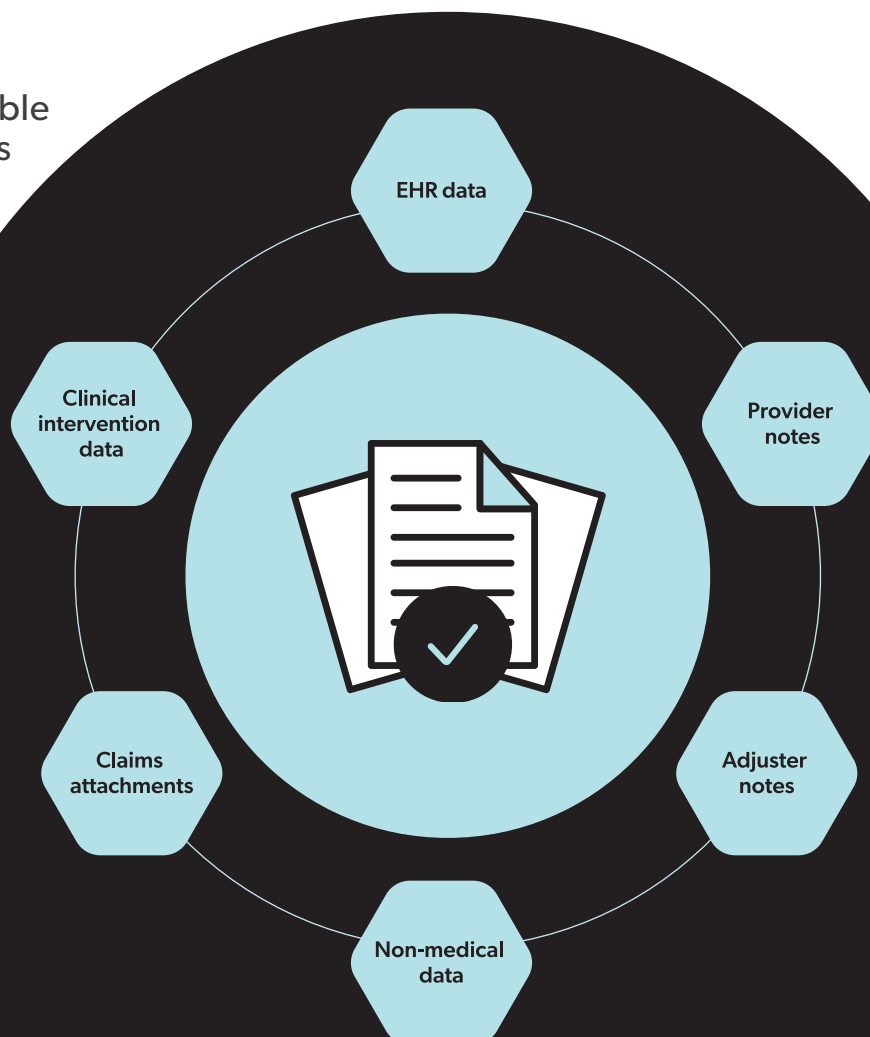
There are ripe opportunities for workers' compensation stakeholders to gain the visibility they seek into SDoH, and those opportunities are best formed by partnering personal interaction with technology. First – are the right, quality interactions happening between injured worker patients and the appropriate stakeholders? And secondly, how are we gaining insight from those interactions? Are the right communication channels in place? And how can we best use next-generation technologies, such as AI-driven analytics and natural language processing (NLP), to consolidate and glean insight from the often disparate and unstructured data that results from these interactions?

THE POWER OF HUMAN OBSERVATION

The injured worker intersects with a multitude of stakeholders throughout their journey through the workers' compensation system. Every interaction is an opportunity to gain insight into barriers to recovery, but some stakeholders are better positioned than others to observe potential SDoH-related barriers specifically. Home health aides, for example, have direct insight into a patient's home life and social environment. A physical therapist who spends significant portions of 1-on-1, in-person time with the injured worker is a stakeholder who often will uncover or observe SDoH influence.

Opening lines of communication with these types of providers can help bring these insights to the claims adjuster. Right now, this is an area of opportunity for the industry, with 64% of claims professionals reporting difficulty in obtaining information from medical providers.¹ And in the instances where this is already happening at an individual level, how can this information be scaled for a claims adjuster across the multitude of notes and data sources associated with a claim? Enter the role of technology.

Example Viable Data Sources



THE BEST DATA IS BROAD AND VIABLE DATA

Because social barriers are tightly woven into a patient's everyday life and overall well-being, they can present themselves in a number of (not always obvious) ways and through a number of data sources.

The key to successfully applying technology to identify social determinants of health influencing claims populations is by including as many viable, quality sources for data-mining as possible – in other words, are we broadening our data sources enough to include the volume of information required to produce accurate insights with a high confidence level across a population?

Viable sources often include the medical record, a rich amalgamation of EHR notes, physical therapy notes, adjuster notes, and any other attachments to a claim. This information can be supplemented with data gathered from clinical pharmacists through direct interventions with injured worker patients and other key stakeholders involved in their care. And non-medical data can also prove to be valuable sources, such as data gathered from investigative services. Going beyond a single set of documents, such as physician notes, to include information captured by other providers or sources, can help fill in any gaps.

TECHNOLOGY DOES THE HEAVY LIFTING

Once the viable data sources have been identified, NLP allows a machine to process and analyze large amounts of natural language text and extract the key data elements that provide insight and context to SDoH-driven claim complexities. Rather than applying valuable human resources to read through individual medical records or other documentation, data extracted through NLP can quickly point to the most pertinent information within each claim.

When applied to all viable records across a patient population, all of this unstructured data can be stored as discrete data elements to inform increasingly refined analytical models. Other artificial intelligence and machine learning tools can process large amounts of data, auto-segmenting the claimant population and assigning risk and severity scores. The more data there is to work with, the more accurate these models become. So, as NLP combs through each patient record for information to inform individual patient risk, it also provides data that will help predict larger population performance as it relates to social barriers.

TAKEAWAYS FOR WORKERS' COMP CLAIMS ORGANIZATIONS

- ✓ **Leverage SDoH data to understand population risk & performance:**
Leveraging AI-driven technologies to augment analytics can help inform future decisions related to patient populations impacted by SDoH factors – whether it's timely referrals for urine drug screening when a substance misuse disorder is present, or the foresight to anticipate higher-than-average transportation services on the claim.

- ✓ **Understand differences in breadth, depth and quality of data sources:**
Volume of data matters, but so does quality. For example, physical therapist notes from a full session will be more likely to include data revealing SDoH indicators vs a 15-minute session, where interaction with the injured worker is limited.

- ✓ **Incorporate training and awareness initiatives:**
Key front-line roles, such as case managers and claims adjusters, may derive value from skill-based training that enhances their interactions with injured workers. Skills such as active listening and asking open-ended questions can help reveal social barriers that may be impeding an injured worker's adherence to and/or engagement in their recovery.

- ✓ **Leverage partnerships:**
While the primary focus of the workers' compensation system is not to address SDoH, there are opportunities to intervene, especially through partnership and communication with other key stakeholders who bring strengths to the table in this particular aspect of patient care.

- ✓ **Don't underestimate the power of empathy:**
Research demonstrates most injured workers are motivated to return to work and their normal lives, but negative experiences throughout their journey can degrade their engagement and drive litigious behavior.⁷ Demonstrating the desire to understand an injured worker's unique circumstances can go a long way in helping to improve their perception of the workers' compensation process.

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