



Social determinants of health (SDoH) capture in Solventum solutions

- Eliminate manual processes by leveraging AI to extract and code SDoH data from the patient narrative or screening tools
- Gain insights that can help advance organizational equity goals, improve patient outcomes and respond to external reporting and accreditation requirements
- Integrate ancillary documentation or questionnaires containing SDoH data into auto-suggested coding workflows for inpatient and outpatient settings

What are SDoH?

According to the [World Health Organization \(WHO\)](#), SDoH refer to non-medical factors that impact health outcomes and significantly shape the well-being and quality of life for individuals and communities. SDoH data encompass factors such as economic stability, access to education, healthcare access and quality, neighborhood environment, and social and community context. These circumstances contribute to health inequities, which are avoidable disparities in health status.



The challenge: Capturing the complete patient story

Medical care is only one factor influencing an individual's overall health and well-being. Social and economic factors are estimated to determine 40% of the length and quality of people's lives and can be more influential than clinical care factors.

The growing understanding of SDoH puts pressure on policymakers and healthcare organizations to capture SDoH data, develop population health initiatives and improve patient outcomes. Recent regulatory changes have broadened the range of electronic health record (EHR) data that can be used to build the SDoH narrative. Now, ancillary documentation — which refers to non-physician documentation captured by other members of the primary healthcare team — can be leveraged to document SDoH in the patient's medical record. This information can reveal valuable insights into how non-medical factors can influence the patient's health.

Along with collecting SDoH data, it is vital to translate this information into Z codes to inform reporting, coordination of care and interventions to improve patient outcomes. However, the disparate sources and formats of SDoH data often require manual coding processes and pose challenges for data processing and reporting.

The solution: Automated workflows for SDoH data capture

Intelligent solutions from Solventum can identify SDoH data in the medical record and integrate it into computer-assisted coding (CAC) and clinical documentation integrity (CDI) workflows — minimizing the need for manual processes. Healthcare organizations can work with the Solventum team to pull SDoH data either from ancillary documentation or from the Health-Related Social Needs (HRSN) Screening Tool. With a more complete patient narrative, healthcare teams can provide targeted care and resources to address social risk at the individual level, as well as use aggregated data to develop community-based interventions.

Integrating ancillary documentation into SDoH coding

Solutions

- Solventum™ 360 Encompass™ Computer-Assisted Coding System leverages ancillary documentation from inpatient and outpatient settings to auto-suggest Z codes for SDoH capture, with the option for customization. By configuring this functionality, coders no longer need to manually review all encounter documents to identify SDoH codes – increasing efficiency and accuracy. Before and after configuration changes, Solventum 360 Encompass CAC provides metrics such as increased SDoH data capture of auto-suggested codes, accepted auto-suggested codes, final coded data and decreased manual additions of SDoH.
- Solventum™ CDI Engage One™, implemented with Solventum™ 360 Encompass™ Clinical Documentation Integrity System, embeds artificial intelligence (AI)-powered clinical intelligence into documentation workflows for clinicians and CDI specialists. Using encounter-based clinical reasoning and automation, it combs through EHR notes, narrative documents, labs and diagnostic studies to find opportunities to enhance documentation quality, resulting in appropriate reimbursement and improved quality metrics. For the evaluation of SDoH, Solventum CDI Engage One customers have the ability to configure custom nudges to recommend that clinicians evaluate certain patients for SDoH based on information in the medical record.
- Solventum™ 360 Encompass™ Autonomous Coding System leverages expert-guided AI and neural network models to read, process, code and complete qualified medical visits or encounters ready for the billing process, without human touch, so coders can focus on complex cases. SDoH Z codes are included in the autonomous coding final code set determination.

Features

- CDI Evidence Sheets (included in Solventum CDI Engage One) provide clinical documentation for CDI teams to review for potential query opportunities. The workflow includes clinical triggers for three homelessness ICD-10-CM Z codes that are complications or comorbidities (CCs).
- Custom Edits (included in Solventum 360 Encompass) allow organizations to create specific code edits to alert teams of SDoH capture opportunities. Creating nosology edits for inpatient and outpatient visits can potentially impact a shift in diagnosis related groups (DRGs). These edits align with CDI Evidence Sheets and auto-suggested codes.

Real results: SDoH code capture in collaboration with Solventum

Large academic health system

Results achieved six months after integrating the SDoH narrative captured in social worker notes and nursing assessments into the CAC workflow*

252% increase in auto-suggested SDoH codes

191% increase in final SDoH codes captured

235% increase in accepted auto-suggested SDoH codes

12% decrease in manually added SDoH codes

*Solventum internal data on file



Integrating the HRSN Screening Tool into SDoH coding

What is the HRSN Screening Tool?

The Centers for Medicare & Medicaid Services (CMS) developed the [HRSN Screening Tool](#) to systematically identify patients' unmet social needs so they can be connected with community resources to ultimately improve outcomes and reduce healthcare costs. The questionnaire asks patients about access to housing, food, transportation, safety and more. Healthcare organizations that use the tool store the answers in the medical record.

Solutions

[Solventum 360 Encompass CAC](#) uses patients' answers from the HRSN Screening Tool to auto-suggest Z codes for SDoH capture, with the option for customization. Interfacing this data with CAC workflows boosts efficiency by eliminating the need for coders to manually review encounter documents to identify SDoH codes. Solventum 360 Encompass CAC provides metrics such as increased SDoH data capture of auto-suggested codes, accepted auto-suggested codes, final coded data and increase of SDoH CC capture to demonstrate the results of the HRSN Screening Tool integration.

Features

Solventum has created an interface project to configure the HRSN Screening Tool into CAC. It entails scoping the document and providing the workflow for ingestion into CAC.

Real results: SDoH code capture in collaboration with Solventum

Large community-based healthcare system

Results achieved 60 days after integrating HRSN Screening Tool data into the CAC workflow*

- 95%** increase in auto-suggested SDoH codes
- 58%** increase in final SDoH codes captured
- 69%** increase in accepted auto-suggested SDoH codes
- 6%** decrease in manually added SDoH codes

Large healthcare delivery network with multiple hospitals

Results achieved 30 days after integrating HRSN Screening Tool data gathered from three separate environments into the CAC workflow*

- 80%** increase in auto-suggested SDoH codes
- 34%** increase in final SDoH codes captured
- 40%** increase in accepted auto-suggested SDoH codes
- 31%** increase in final coded SDoH codes that are CCs

*Solventum internal data on file



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