Social Determinants of Health: Improving Capture and Use by Applying Data Governance Strategies

AHIMA
American Health Information Management Association®

Introduction

Social determinants of health (SDOH) are the conditions in which people are born, grow, live, work and age; they are shaped by the distribution of money, power, and resources at global, national, and local levels.[1]

Leveraging SDOH offers tremendous opportunities in healthcare. Increasingly, evidence suggests that focusing on "upstream" interventions outside of traditional clinical care — such as housing, neighborhood conditions and increased socioeconomic status — can lead to overall improvements in health[2] and reduce health disparities and inequities.[3]

> **Data Governance is the overall administration, through clearly defined procedures and plans, that assures the availability, integrity, security and usability of the data.**
>
> Oachs, P.K, Watters, A.L., 6th Edition, Health Information Management, Concept, Principles, and Practice, AHIMA Press

The Coronavirus pandemic 2019 (COVID-19)[4] further illuminated disparities and inequities and the disproportionate effect on people who identify as Black, Indigenous, and People of Color (BIPOC).[5] The pandemic also emphasized the need for health and social care organizations to identify tools for addressing needs and accelerated the call for documentation of a patient's social circumstances.[6]

Yet, the successful capture and utilization of SDOH for clinical decision-making is not without its challenges. Applying data governance strategies and principles offers an opportunity to improve the collection and use of social determinants within healthcare facilities.

Recently, AHIMA convened health information professionals to discuss how to establish and apply data governance principles that may be leveraged to improve the capture, management, and use of social determinants. This paper will discuss identified opportunities and challenges associated with the collection and use of social determinants as well as how facilities may improve their governance of social determinants of health data.

Background

The World Health Organization (WHO) created the Commission on Social Determinants of Health in 2005 to promote health equity and to foster a global movement to achieve it.[7] In 2008, the WHO published the report entitled, *"Closing the gap in a generation; Health equity through action on the social determinants of health"* which recommended improving daily living conditions, tackling the distribution of power, money, and resources, measuring and understanding the problem and assessing the impact of action.

Prior to this, the US Department of Health and Human Services (HHS) began publishing a report that outlines objectives for the next decade. The first *Healthy People* report was published in 1980 with the most recent being published in 2020; ([Healthy People 2030](#)). *Healthy People* promotes a shared understanding of social determinants of health, including how SDOH data may be leveraged. While the report's objectives have changed over the years, the overarching focus has remained on key public health priorities – how to focus resources and efforts for improving the health and well-being of all people.[8]

---

1 https://www.who.int/gender-equity-rights/understanding/sdh-definition/en/.
2 Ibid.
3 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3431152/.
4 https://www.cdc.gov/coronavirus/2019-ncov/cdcresponse/about-COVID-19.html#:~:text=In%20. COVID%2D19%2C,2019%2DnCoV%E2%80%9D.
5 https://ochin.org/blog/2021/2/18/racial-and-ethnic-disparities-in-covid-19-cases-at-community-health-centers.
6 Gottlieb, L.M., et. al. (2021). "The National Academy of Medicine Social Care Framework and COVID-19 Care Innovations". *JGIM. Retrieved from:* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7815281/.
7 https://www.who.int/social_determinants/final_report/csdh_finalreport_2008.pdf.
8 https://health.gov/our-work/healthy-people/about-healthy-people/history-healthy-people

More recently, the Office of the National Coordinator for Health IT (ONC) prioritized the integration of health and social services data in their Draft 2020-2025 Health IT Strategic Plan.[9] The plan includes:

- Calling for strategies that strengthen communities' health IT infrastructure by facilitating bi-directional, secure data exchange across clinical and non-clinical settings;
- Fostering greater understanding of how to use health IT to assess and address unmet health and social needs of individuals and communities;
- Capturing and integrating SDOH data into electronic health records (EHRs) to assist in care delivery, including clinical decision support and integration of medical and social care; and
- Addressing health disparities in a manner that is ethical and consistent with routine patient care.

Increasingly, SDOH has become a focal point for policymakers in the US as a means to improve health outcomes and address health inequities. This includes efforts to enhance data standards by harmonizing terminologies and expanding classifications (e.g. ICD-10-CM) to guide how SDOH data are collected in electronic information systems.[10]

Below are a number of national initiatives seeking to address the advancement of the collection, use, and exchange of SDOH data:[11]

- The Gravity Project, a multi-stakeholder, public initiative focused on developing consensus-based structured data standards to reduce barriers to documentation and exchange of SDOH data within and across clinical settings and community-based organizations and service providers.[12]
- CMS' CMMI Accountable Health Communities (AHC) Model which seeks to test whether systematically identifying and addressing the health-related social needs of Medicare and Medicaid beneficiaries' through screening, referral, and community navigation services will impact healthcare costs and utilization.[13]
- State Medicaid programs seeking to address SDOH in innovative ways through their managed care contracts and other mechanisms such as Section 1115 Demonstration Waivers. For example, the state of North Carolina leverages public-private partnerships to support high-need Medicaid beneficiaries. By identifying interventions that will address SDOH factors such as housing instability, transportation insecurity and food security, the state of North Carolina can deliver a package of services tailored to a Medicaid beneficiary's specific needs.
- HHS Office for Civil Rights (OCR) Notice of Proposed Rulemaking[14] which proposes to permit covered entities to disclose protected health information (PHI) to social service agencies; community-based organizations; and home and community-based service (HCBS) providers that provide health-related services for individual-level care coordination and case management as a treatment activity of a provider or as a healthcare operation activity of a provider or plan.

9 https://www.healthit.gov/sites/default/files/page/2020-10/Federal%20Health%20IT%20Strategic%20 Plan_2020_2025.pdf.
10 Cantor, Michael N., Thorpe, Lorna. "Integrating Data on Social Determinants of Health into Electronic Health Records. *(April 2018). Health Affairs.*
11 https://www.ahima.org/advocacy/policy-statements/social-determinants-of-health/.
12 https://confluence.hl7.org/display/GRAV/The+Gravity+Project.
13 https://innovation.cms.gov/innovation-models/ahcm.
14 https://www.hhs.gov/sites/default/files/hhs-ocr-hipaa-nprm.pdf.

Opportunities

Collecting, managing, and exchanging SDOH with community-based organizations (CBOs) may be a new concept for healthcare organizations.

To improve health outcomes, public health and health inequities, AHIMA believes that SDOH data must be collected, accessed, managed, and shared in a culturally respectful way to support whole person healthcare.[15] The evolving healthcare landscape requires thoughtful planning and care coordination to govern clinical and non-clinical data, as well as to promote clinical decision-making, improve health outcomes and public health, and identify ways to address health inequities.

As stakeholders seek to leverage social determinants, establishing a data governance framework for managing such information is increasingly important. AHIMA and its members have a rich history of advocating for and expertise in implementing strong enterprise-wide health data governance practices to support the data lifecycle (capture, process, use, storage, and disposal).

Challenges

Organizational commitment and governance structures are foundational to the success of SDOH data capture and use in the clinical setting. A 2020 AHIMA survey of its membership revealed that most organizations did not have a formal governance committee structure to address SDOH data collection and usage.[16] Such a structure is a critical component of an organization's commitment to whole person healthcare and meeting the needs of future SDOH data sharing.

AHIMA Data Lifecycle

CAPTURE Recording data in health Information systems

PROCESS Series of actions taken to create a product and/or service.

DISPOSE Destruction per retention schedule

USE Access, sharing and analysis
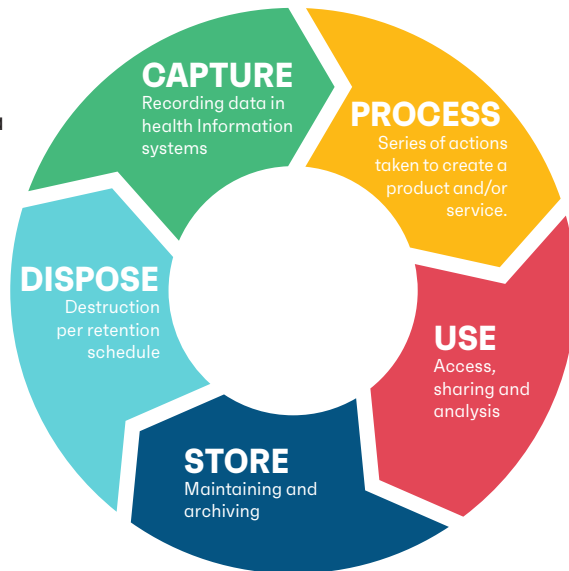
STORE Maintaining and archiving

However, resource constraints within hospitals and providers' practices — including time and staff — are often a barrier to achieving success.

Privacy is another key concern when sharing SDOH data with CBOs. The sharing of SDOH data without limiting the scope of health information to carry out a specific purpose or function may jeopardize an individual's privacy and confidentiality.[17] Disclosing an individual's health information without adequate safeguards could also potentially lead to discrimination, stigmatization, and implicit bias, further exacerbating poor outcomes and existing health inequities. As such, organizations are often hesitant to share such information with CBOs.

Lack of sufficient workforce education and development is another key challenge related to the capture and use of SDOH. New approaches to integrating SDOH into healthcare delivery may require additional workforce education and a more diverse and culturally competent workforce. Such approaches will be needed to enable the accurate and consistent collection and use of SDOH in a manner that is done with cultural humility and sensitivity. This includes a clear understanding of how to maintain patient confidentiality when working with CBOs to support the collection and management of sensitive SDOH data.

Quality documentation leads to more accurate coding, and SDOH data is bringing new challenges to operations and coding productivity. Indeed, the AHIMA 2020 survey indicated 27 percent of respondents found coding productivity standards are a key challenge in collecting

15 https://www.ahima.org/media/pi4jj1on/ahima-sdoh-policy-statement.pdf.
16 https://ahima.org/sdoh/.
17 https://www.ahima.org/media/t2bnvizs/ahima-comments-on-modifications-to-hipaa-privacy-rule-final.pdf

AHIMA

SDOH data. Often, there is a lack of consensus within institutions as to which SDOH data elements should be prioritized for collection. This lack of standardization has downstream implications, including impacts on coding productivity.

Survey participants in 2020 also cited a lack of organizational policy around SDOH data collection.[18] Collected data must have an intended purpose within the EHR workflow to show its usefulness and be able to demonstrate value in improving the patient experience and/or health outcomes. Members of the roundtable noted that due to provider burden, the more SDOH data that is collected, the less likely it is that all the identified issues may be followed-up on and addressed.

Recommendations

Challenges identified by the work group are significant and addressing them will take a dedicated and sustained effort by many stakeholders. To advance the collection and use of social determinants of health, the work group developed a set of recommendations below to encourage the governance of SDOH.

Organizational Commitment

- Educate clinicians and administrative leadership on the changing healthcare ecosystem and how collecting and managing SDOH data will move the industry closer to providing the best whole-person healthcare for patients.
  - Hold discussions with clinicians and administrative leadership on social determinants and the importance of whole-person healthcare in today's healthcare ecosystem.
  - Explore and review with clinicians and administrative leadership teams the various operational and financial factors that are associated with not collecting SDOH data, including[19]: missed appointments, preventable health events, and reduced care plan compliance.
- Work with key stakeholders within the organization and community stakeholders to create a governance committee. Members should include a variety of stakeholders representing key areas such as health information, compliance and risk management, case management, social work, clinical leadership, quality improvement, population health/health equity, and information technology.
  - A governance structure may be added to existing structures if the focus of sharing SDOH data with CBOs is prioritized within the committee's charge.
  - Recruit a CBO partner to serve on the committee to keep the "why" at the forefront in conversations and planning.

Privacy and Access

- Organizations should develop a policy and procedure that allow an individual's health information to be shared with a CBO for treatment purposes, including care coordination and case management, consistent with existing guidance from the HHS Office for Civil Rights.
- As part of the Notice of Privacy Practices requirements, organizations should include language notifying patients that their health information may be shared with CBOs.[20] This includes developing processes and workflows to allow patients the opportunity to opt out of sharing their health information with a CBO. For example, a patient who suffers abuse through intimate partner violence (IPV) may not want a CBO that provides certain services to have access to their location and other sensitive information.

18 https://ahima.org/sdoh/.
19 https://www.medicaleconomics.com/view/five-top-use-cases-data-social-determinants-health.
20 https://www.ahima.org/media/t2bnvizs/ahima-comments-on-modifications-to-hipaa-privacy-rule-final.pdf

- Review CBO's consent process and identify opportunities for alignment with the organization's treatment consent policies.

Enhanced Quality Documentation through Data Lifecycle Stages

Applying the data lifecycle stages (capture, process, use, store, and dispose) to the overall SDOH data governance strategy will assist in maintaining focus on the quality, integrity, and availability of the data.[21]

Capture

- Assess current landscape:
  - Identify and distinguish between individual-level and community-level SDOH data collected[22][23] and understand where this data is being collected and used.
  - Determine whether and what SDOH data is being voluntarily captured.
- Establish organizational policies:
  - Determine which ICD-10-CM SDOH Z codes[24] will be captured. For organizations in the earlier stages of collecting SDOH data, they should consider focusing on a subset to get started. Examples include:
    » Identifying patients with high-cost, high-risk chronic conditions that account for a large part of readmissions.[25]
    » Evaluate areas where the organization has an existing relationship with a CBO or where such a relationship could be easily established.
  - Develop internal coding guidelines to identify categories of clinicians (e.g. community health worker, case manager) for whom documentation can be used for accurate code assignment and note the location of this information in the health record.[26] These guidelines will be important when addressing coding productivity standards.
- Meet with EHR/data integrity teams and information technology partners:
  - Engage the organization's master patient index (MPI) data integrity team to determine best practices for capturing individual-level determinants of health using proven patient identification and matching methods.[27]
  - Work toward making SDOH data actionable including:
    » Real-time alerts and triggers on the front end of the capture process should be built into documentation systems reminding clinicians (e.g. nurse, dietician, social worker) upfront to collect certain SDOH data to support provider productivity and response times.
  - Explore opportunities for optimizing the capture of SDOH data for clinical coding:

Individual-level determinants of health: Data specific to a patient such as housing situation, or employment status. Such information is included as part of the patient's health record.

Community-level determinants of health: Data that broadly affects a population such as measuring environmental, neighborhood or socioeconomic (e.g. air pollution or housing quality). Such data is typically provided by a third-party data source to augment population health data efforts.

21 Retention and Destruction of Health Information. AHIMA. 2013.

22 Cantor, M.N. & Thorpe, L., (2018) Integrating Data on Social Determinants of Health into Electronic Health Records. *Health Affairs.* 37(4), 585-590. .

23 Ibid.

24 https://www.aha.org/system/files/2018-04/value-initiative-icd-10-code-social-determinants-of-health.pdf.

25 https://www.hfma.org/topics/finance-and-business-strategy/article/sdoh-initiative-reduces-readmission-penal-ties-in-one-year.html.

26 https://journal.ahima.org/improving-icd-10-cm-coding-for-social-determinants-of-health/.

27 AHIMA. A Realistic Approach to Achieving a 1% Duplicate Record Error Rate.

» Evaluate updating computer-assisted coding (CAC) systems and other clinical documentation tools to capture structured and unstructured data, such as the social data in the history and physical.

» Define various SDOH document types and sources from which data needs to be pulled to enhance automation, enabling the CAC system to present information sets in various work queues to the health information professional.

- Support seamless and electronic exchange of data:

» Evaluate the deployment of HL7 FHIR®-based application programming interfaces to support moving care upstream.[28]

» Examine current and future needs to engage clinicians in collecting, using, and sharing SDOH data:

~ Today's referrals (e.g. food bank or delivery service for food insecurity) are often a one-way communication method from the clinical to non-clinical setting. Outline how useful data is/will be if returned and ingested into the ordering provider's source system.

~ Plan for the future workflow of SDOH data where referrals and other documentation will be shared using bidirectional interfaces.[29]

- Staff training:

  - Determine what staff role(s) will interact with patients in a culturally sensitive way to collect SDOH data. This may include registration, case management, social workers, care providers and others deemed necessary.

  - Provide coding professionals training consistent with the American Hospital Association's (AHA) Coding Clinic guidance[30] and the use of SDOH Z codes. This includes guidance on utilizing documentation of social needs from clinicians including, but not limited to, social workers, community health workers, case managers, nurses, and other providers.

  - Provide education to clinicians on documentation requirements to support SDOH accurate code assignment.

Process

- Determine the location of where certain SDOH document types will be stored and in which information systems they may be retrieved. SDOH is often documented in sections of the record that coding professionals do not typically review, such as social work notes. The ability to quickly find a particular document type or data element(s) in multiple information systems is key to quality documentation, including coding productivity and clinical documentation integrity (CDI) activities.

- Ensure SDOH codes are not pulled forward without proper validation. Documentation associated with a particular encounter must match the code assigned. Life circumstances often change (e.g. unemployed, homeless), and documentation must be updated to reflect the current encounter.

- Monitor SDOH data capture with eventual incorporation into severity of illness (SOI) and other risk scoring methodologies. Address how medical complications and comorbidities are captured using the APR-DRG system to adjust for SOI and mortality.

- Determine an alternate location for storing additional SDOH codes and diagnoses not captured

28 The National Academies of Sciences Engineering and Medicine. (2019) Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation's Health.
29 https://www.healthit.gov/topic/2020-2025-federal-health-it-strategic-plan.
30 https://www.aha.org/system/files/2018-04/value-initiative-icd-10-code-social-determinants-of-health.pdf.

or used on claim forms, as the number of codes populated on claim forms are currently limited.

- Evaluate workflow updates:
  - Crosswalks and workflow maps to illustrate new SDOH workflows that may require change in processes.
  - Identify other classification and terminology systems to be used for collecting and processing SDOH data (SNOMED-CT, LOINC, CPT®, etc.) and determine if updates are needed in data dictionaries to assist with the goal of enhancing semantic interoperability.
  - Update abbreviation lists to include any new acronyms being used in the health record such as community-based organizations (CBO) or home community-based service provider (HCBS).

Usage

- Review, on a routine basis, the sharing of information with CBOs to ensure availability and evaluate lessons learned to incorporate into best practices. For example, reviewing feedback controls/loops that monitor the results of a referral made from the EHR to the CBO. Were the results and follow-up returned to the ordering clinician? Did the referral information from the clinical setting to the CBO leave any gaps in the care continuum that must be addressed manually and/or is a workaround necessary?
- Assess how and what SDOH data may be shared in patient portals and health information exchanges/networks to optimize the technology to share SDOH data across the care continuum. Determine whether SDOH will be shared with health information exchanges/networks.
- Determine whether collected SDOH is part of the organization's designated record set (DRS) and electronic health information (EHI). If so, develop policies and procedures to incorporate such data elements into the release of information process.
- Collaborate with cross-functional teams (e.g. health information, compliance, providers, and case management) to establish policies and procedures to address the timing in which a patient's SDOH data should be updated in the patient's record.

> **Feedback Controls/Loops:** A back-end process that monitors and measures output and then compares it to expectations and identifies variations that then must be analyzed so correction action plans can be developed and implemented.
>
> Oachs, P.K, Watters, A.L., Health Information Management, Concepts, Principles, and Practice, Sixth Edition. AHIMA Press.

Storage and Disposition:

- Update destruction policies, procedures, and retention schedules that include appropriate methods of destruction.

Conclusion

Leveraging SDOH offers tremendous opportunities in healthcare to improve outcomes, public health, and health equity. However, certain challenges exist today in the capture and use of SDOH. Applying data governance principles and practices to the management of social determinants are necessary to ensure that the capture, use, and sharing of SDOH data is aligned with improving healthcare outcomes and addressing health disparities and inequities. To ensure success, organizational commitment, collaboration among key internal and external stakeholders, prioritizing privacy and security, and attention to the data lifecycle will be critical to building a SDOH data governance strategy.

AHIMA

About AHIMA

The American Health Information Management Association (AHIMA) is a global nonprofit association of health information (HI) professionals. AHIMA represents professionals who work with health data for more than one billion patient visits each year. AHIMA's mission of empowering people to impact health drives our members and credentialed HI professionals to ensure that health information is accurate, complete, and available to patients and clinicians. Our leaders work at the intersection of healthcare, technology, and business, and are found in data integrity and information privacy job functions worldwide.

AHIMA
American Health Information
Management Association®