

FINAL REPORT

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Social Determinants of Health Data: Survey Results on the Collection, Integration, and Use

Presented by:

NORC at the University of Chicago (NORC)

American Health Information Management Association (AHIMA)

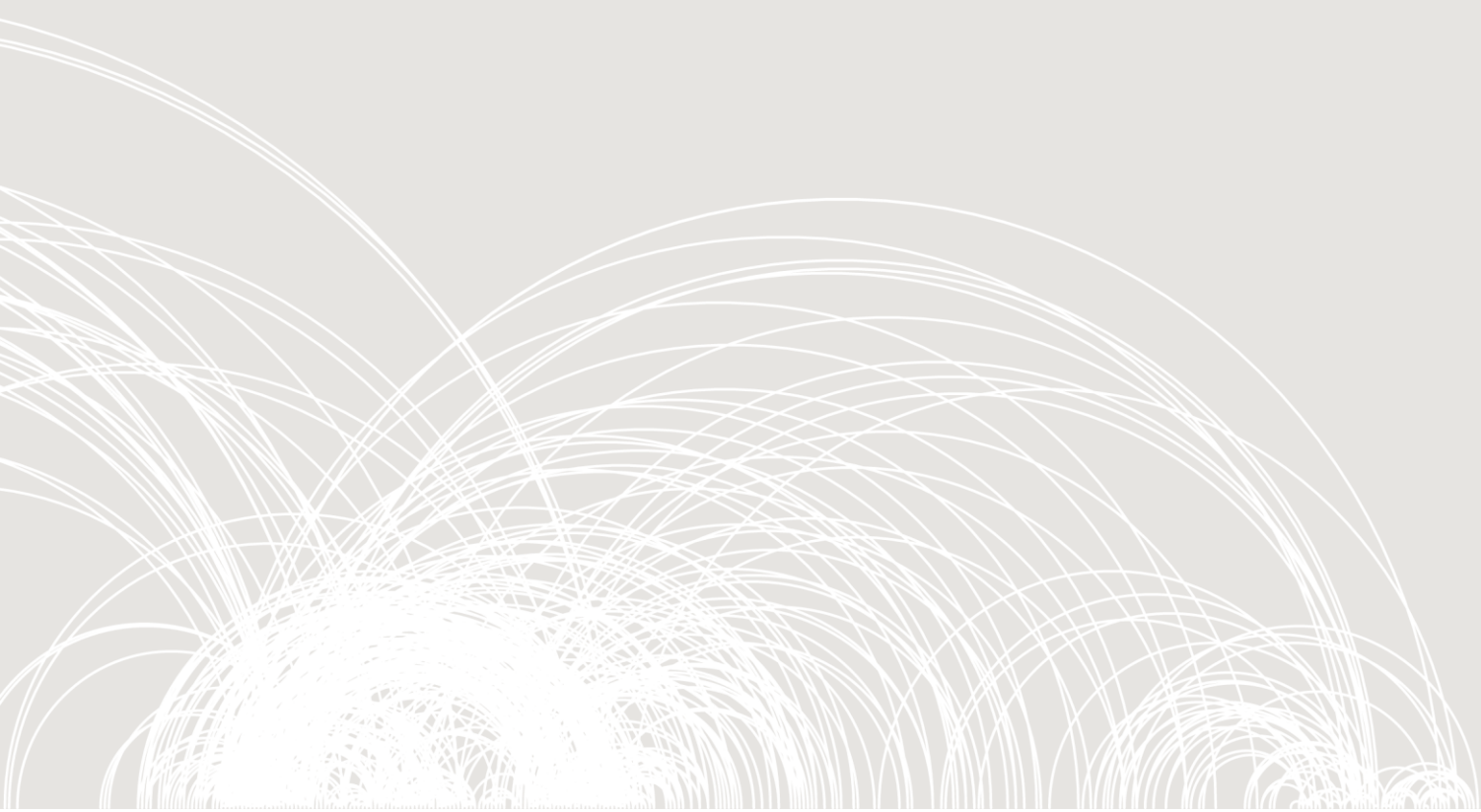


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Executive Summary

The American Health Information Management Association (AHIMA), a global nonprofit association of health information (HI) professionals and a leading voice and authority in the health care industry, is dedicated to improving the collection of actionable Social Determinants of the Health (SDOH) data. As part of its mission to empower people to impact health, in 2020 AHIMA called upon then-President-Elect Biden to bolster the country's health system through the increased collection and use of accurate, timely, and complete patient health information.¹ Two years later, AHIMA continues to pursue and promote this goal by highlighting that more-comprehensive SDOH data can offer additional insights to help enrich clinical decision-making and improve health outcomes.

In 2022, AHIMA tasked NORC with undertaking a comprehensive research survey of AHIMA members regarding SDOH. The survey had three main objectives:

1. Better understand how SDOH is collected, coded and used
2. Inform the development of educational tools and resources needed by HI professionals
3. Inform the development of policy recommendations to further the standardization and use of SDOH data

The survey's findings and subsequent policy recommendations can be used to help the health care sector and policymakers better understand and address challenges associated with the collection, coding, use, and exchange of SDOH data. Better SDOH data enables the health system to better understand pathways to achieving improved outcomes and solutions.

Key Findings

Nearly eight in 10 survey respondents indicated that their organization was collecting SDOH data. This is an important indicator and demonstrates that there is a growing understanding of the value of SDOH information across health care settings. However, subsequent responses in the survey indicate that there are challenges to collecting complete and accurate data including the following:

- Lack of standardization and integration of the data into an individual's medical record
- Insufficient training and education on how to capture, collect, code, and use the data
- Limited use of the data to communicate between health care providers and community-based referral organizations

This paper addresses each of these in detail and offers policy recommendations.

¹ Harris, Wylecia Wiggs. "AHIMA Letter to President Elect Biden." *AHIMA*, 17 Dec. 2020, [ahima.org/media/fvjsjmj01/ahima-letter-to-president-elect-biden.pdf](https://www.ahima.org/media/fvjsjmj01/ahima-letter-to-president-elect-biden.pdf).

Background

The U.S. Department of Health and Human Services (HHS) defines SDOH as "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."² As part of its Healthy People 2030 campaign, HHS has identified SDOH as a critical factor in addressing health equity.^{3,4}

SDOH include but are not limited to education, safe housing, access to nutritious foods, transportation, and good air and water quality. A growing body of evidence suggests that social needs play a substantial role in determining health outcomes. One widely cited analysis estimates that social and economic factors alone determine 40 percent of the length and quality of our lives and are twice as influential as factors related to clinical care.⁵ The World Health Organization also suggests that SDOH account for 30–55 percent of health outcomes.⁶

These findings have led to increased attention on SDOH by health care industry leaders and policymakers. The Biden-Harris Administration has made numerous announcements, rules, and taken other steps that make it clear that health equity is a core focus and recognize that improved collection and use of SDOH data is critical to bridging the health equity gap.^{7,8,9} Various sectors of the health care delivery system—including providers, payers, and technology companies—similarly recognize the importance of SDOH on patient outcomes, and are seeking to address these issues in more meaningful ways than before.

Despite the increased attention and emphasis on SDOH, there are real challenges to addressing individual social needs, especially within the health care system. Historically, the health care system has not been oriented to address these issues and significant changes are needed to enable health care providers to affect health outcomes through the use of this data. While a multitude of changes are needed, a focus on the documentation of these needs and translating those needs into coded data for actionable use is foundational. An analysis produced by NORC at the University of Chicago (NORC) found that the claims data of only 1.42 percent of Medicaid enrollees and 1.3 percent of Medicare beneficiaries included documentation of social needs.^{10,11}

Consistent, accurate, and complete collection of actionable data is the first of many steps needed to create a more equitable health care system and to deliver equitable care. Actionable data not only

² ODPHP. "Social Determinants of Health." *Social Determinants of Health - Healthy People 2030*, health.gov/healthypeople/priority-areas/social-determinants-health.

³ <https://health.gov/healthypeople/priority-areas/health-equity-healthy-people-2030>

⁴ Health equity is "the attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities." Healthy People 2030, <https://health.gov/healthypeople/priority-areas/health-equity-healthy-people-2030>

⁵ University of Wisconsin Population Health Institute. "County Health Rankings & Roadmaps, 2014.

⁶ World Health Organization. "Social determinants of health." 2021. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1

⁷ CMS. *CMS Framework for Health Equity*. www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/framework-for-health-equity.

⁸ CMS. *Press Release CMS Proposes Policies to Advance Health Equity and Maternal Health, Support Hospitals*. 18 Apr. 2022, www.cms.gov/newsroom/press-releases/cms-proposes-policies-advance-health-equity-and-maternal-health-support-hospitals.

⁹ CMS. *Data Highlights*. www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/information-products/data-highlights.

¹⁰ NORC. *Use of ICD-10-CM Z-Codes in 2018 Medicaid Claims and Encounter Data*. March 2022.

https://www.norc.org/PDFs/Documentation%20of%20Social%20Needs%20in%202018%20Medicaid%20Data/Documentation%20of%20SDOH%20in%20Medicaid%20Claims_032422.pdf

¹¹ NORC. *Few Physicians Document Social Needs of Older Adults*. September 2021. <https://www.norc.org/NewsEventsPublications/PressReleases/Pages/few-physicians-document-social-needs-of-older-adults.aspx>

helps inform decision-making and the development of solutions to address these social needs on an individual level, they are critical to understanding population-level trends related to social determinants.

Methods

NORC sent a 27-question web survey to a 41,215-person AHIMA member and non-member distribution list. Survey recipients had roles related to health information data collection and management. They included coding professionals; managers, directors, and vice presidents of Health Information Management (HIM); HIM teams; and C-Suite executives. A total of 2,637 respondents completed the survey from Aug. 24–Sept. 9, 2022.

Researchers assessed the responses for completeness, and to identify missing, invalid, inconsistent, or otherwise inaccurate records. This included checking for and eliminating invalid responses. To establish significance between responses, NORC performed statistical testing with a confidence level of 95 percent. Statistical significance is noted in the data, where applicable.



N = 2,637

Convenience Sample:

- Unweighted
- AHIMA HI Members and Non-Members

Mode: Web, all devices

Fielding dates: 8/24 - 9/9

Lack of Standardization & Integration of Data

Standardization

More than three-quarters of respondents (78 percent) reported that their organization collects SDOH data (Figure 1). Of the 22 percent who said that their organization does *not* collect SDOH data, many indicated that it is because their organization does not screen patients for SDOH (Figure 1).

Among respondents who collect SDOH data (78 percent), slightly more than seven in 10 (71 percent) primarily capture SDOH data electronically, via an electronic health record (EHR) (Figure 2). A small percentage (2 percent) collects SDOH data electronically but outside of an EHR, which suggests the use of a stand-alone data collection portal or other homegrown electronic data collection tool. Respondents also mentioned that they collect data verbally or on paper (5 and 4 percent, respectively).

FIGURE 1

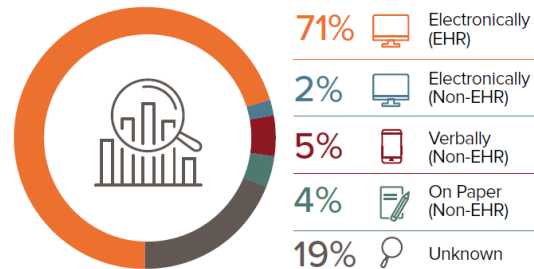
Prevalence of SDOH Collection



NOTE: Totals may not equal 100 percent due to rounding. QUESTION: Does your organization collect SDOH data? (N=2,637). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

FIGURE 2

Primary Mechanism for Capturing SDOH Data



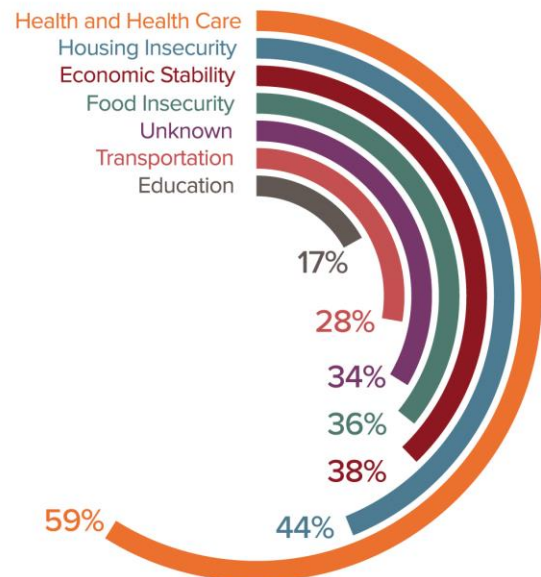
NOTE: Totals may not equal 100 percent due to rounding. QUESTION: How is SDOH data primarily collected? (N=2,901). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

The prioritization of different SDOH data elements is uneven across the health care sector. Nearly six in 10 respondents (59 percent) who collect SDOH data reported that their organization prioritizes health insurance coverage and health behavior information (e.g., smoking, alcohol consumption, etc.) (Figure 3). Health insurance coverage and certain health behavior information have historically been widely collected which might suggest an increased likelihood that an established field exists in the organization’s EHR.

The survey revealed lower levels of prioritization of other SDOH elements. Forty-four percent of respondents reported that their organization prioritized housing security, housing status, and other metrics that impact a patient’s neighborhood, built environment, or living situation. More than a third of respondents said that their organization prioritizes data on economic stability (38 percent) and food insecurity (36 percent). Transportation (28 percent) and education (17 percent) were prioritized the least. These findings suggest that these variables might not have structured fields in the organization’s EHR that would facilitate collection. There may be other reasons for not prioritizing

FIGURE 3

SDOH Domains



NOTES: The graph depicts the proportion of respondents that selected an SDOH domain as their top 3 priority; totals may not equal 100 percent due to rounding; the graph defines the following SDOH domains: Health and Health Care such as insurance status and health behaviors, Housing Insecurity such as housing conditions or living situation (living alone or household size), Economic Stability such as income and employment status, Food Insecurity such as access to public transit or vehicle, Transportation such as access to public transit or vehicle, and Education such as educational attainment. QUESTION: Please indicate which five SDOH data elements are highest priority to your healthy system or organization. Select up to five (5). (N=2,913). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

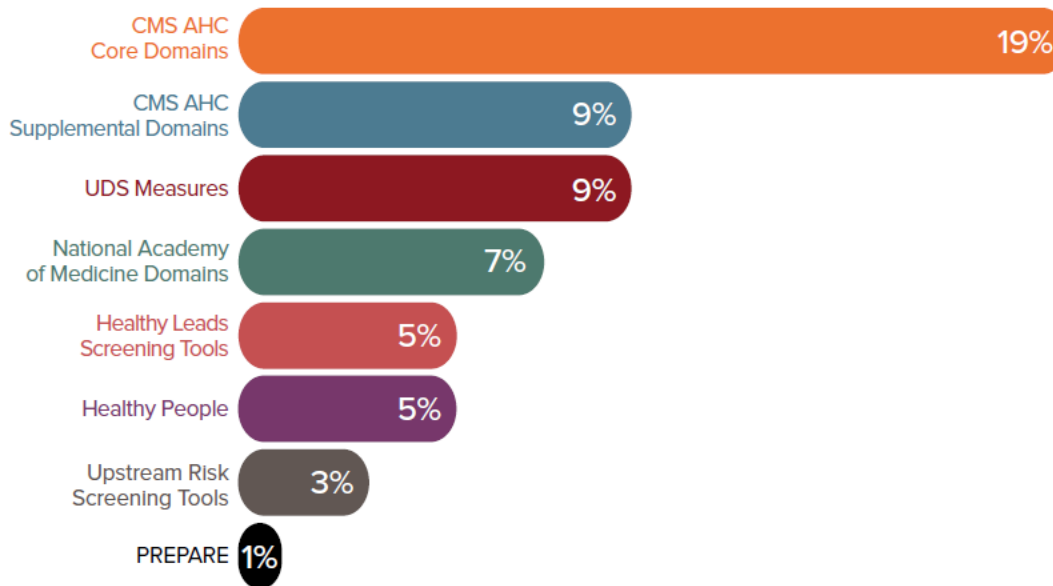
collection of this information, such as a lack of incentives for collecting it compared to other elements tied to value-based care contract terms, like smoking status.¹²

Screening Tools

Which domains are collected reflects more than just the available fields in an organization’s EHR. Organizational priority, the provider’s ability to address these issues, and the type of data-collection tools all play a role. While some data are captured directly by clinicians in clinical notes, others may be collected via screening forms. Respondents cited the Centers for Medicare and Medicaid Services (CMS) Accountable Health Communities (AHC) Core Domains as the most frequently used screening tools for collecting SDOH data (Figure 4). These findings indicate there is no singular preferred screening tool and an overall lack of awareness of available screening tools. It is important to note that each of the tools provided as response options have different structures and focus areas, some of which may align better than others with the diverse needs and clinical settings of organizations collecting this information. These findings suggest a concerted effort to prioritize collection of certain high-priority data elements should be a priority to create meaningful alignment across health care sites and settings as well as raising awareness as to the type of screening tools currently available.

FIGURE 4

Common Screening Tools



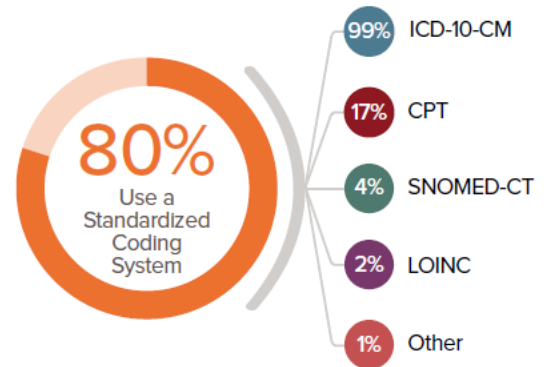
NOTES: Listed in order of use according to respondents from most to least used; totals may not equal 100 percent due to rounding. QUESTION: Please indicate which frameworks or screening tools you use to collect SDOH data. Select all that apply. (N=1,901). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

¹² 2022 CMS Web Interface. PREV-10 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention. https://qpp.cms.gov/docs/QPP_quality_measure_specifications/Web-Interface-Measures/2022_Measure_PREV10_CMSWebInterface_v6.0.pdf

While there is no consensus on which key SDOH domains need to be collected, there is greater alignment on which terminologies are most useful to data collection (i.e., SNOMED, ICD-10-CM diagnosis codes). Eighty percent of respondents used a standardized coding system to code SDOH data elements. Among them, 99 percent use ICD-10-CM (“ICD-10”) codes to collect SDOH data (Figure 5). While ICD-10 codes are universally used, respondents mentioned a few other terminologies, including CPT codes (17 percent), SNOMED-CT (4 percent), and LOINC (2 percent). However, these numbers do not reflect how *often* these codes are used to capture SDOH data. The survey question only asked respondents which coding terminologies, they use to collect SDOH. Although there is consensus on which terminology to use (e.g., ICD-10), a gap remains in using those codes accurately and consistently to capture SDOH data.

FIGURE 5

Terminology



NOTE: Totals may not equal 100 percent due to rounding. QUESTIONS: Are you coding any SDOH data elements using a standardized coding system? (N=2,391); What types of coding terminology, classification, or terminology system do you use to collect SDOH data? Select all that apply. (N=1,912). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

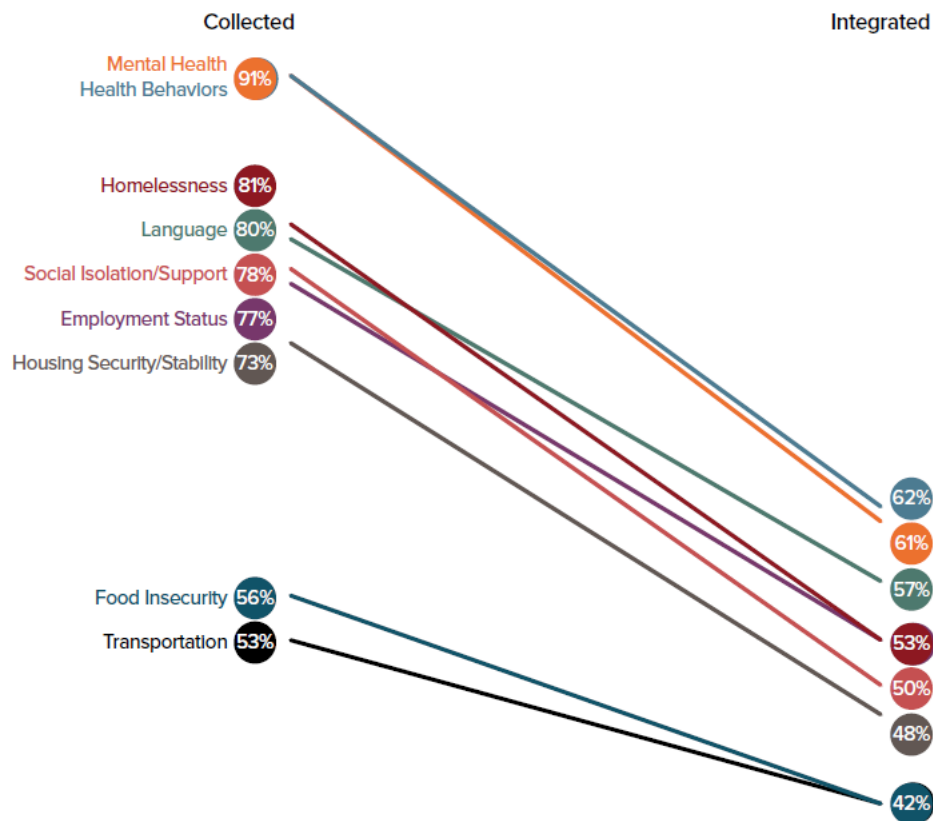
Integration

The survey found that while many health systems and organizations are collecting individual SDOH data elements, those data are not necessarily being integrated into EHRs. For the purposes of this paper, the word “integration” refers to the incorporation of SDOH data elements into the EHR regardless of whether the data is collected manually or through automation. When asked about specific SDOH domains, more than nine in 10 (91 percent) survey respondents said that their organization collects SDOH data related to health behaviors and mental health. However, only about six in 10 (61 and 62 percent, respectively) said that they integrate that information into their patient EHRs (Figure 6).

Similar patterns emerged for other SDOH domains. Roughly eight in 10 respondents (81 percent) collect SDOH on homelessness, language (80 percent), and social isolation (78 percent). Yet less than half said that their organization tries to integrate these data into EHRs (53, 57, and 50 percent, respectively). See below.

FIGURE 6

Collection vs. Integration



NOTE: Totals may not equal 100 percent due to rounding. QUESTIONS: In terms of SDOH data, what specific individual-level SDOH data elements is your health system or organization collecting? (Ns=2,903-2,925) Please indicate which SDOH data is integrated into your EHR from assessments for outside data sources, and which are in your local research data warehouse? (Ns=2,713-2,746). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

While health systems increasingly collect SDOH data, integration into the EHR remains a prevailing challenge. The discrepancy between collection and integration is greatest when it comes to mental health, health behaviors, social isolation, and homelessness. The fact that the data may be incomplete, unstructured, and/or buried in inconsistent fields—such as health concerns, goals, social history, etc.—may limit the integration of this information into the EHR.

Broader collaboration among key stakeholders across the health care sector is a critical step to improved collection of SDOH data and ultimately using this data to improve health outcomes. Policy can serve as a crucial lever to advance collaboration between stakeholders with the ultimate goal of improving the collection, coding, and use of clinically-relevant SDOH data to improve health outcomes. Along these lines, AHIMA offers the following policy recommendations:

Policy Recommendation #1:

CMS and other relevant agencies within HHS should establish, in collaboration with standards-setting organizations, health information professionals, physicians, hospitals, and other front-line health care providers and organizations, a set of standardized, clinically valid, and actionable SDOH data elements for collection. This might include a limited set of evidence-based domains, such as food and housing, as priorities while other domains are considered optional. This would allow for a subset of standardized data elements to be collected in a consistent and comparable manner, while recognizing that diverse care settings may not have the same amount of time or resources to collect and act upon these data. Domains prioritized for collection should also align across federal and state healthcare programmatic and reporting requirements.

Policy Recommendation #2:

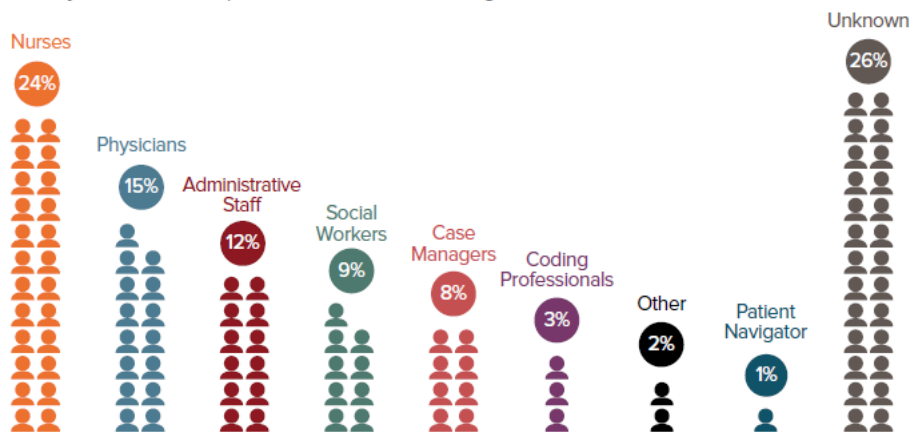
To enhance use of a prioritized set of clinically relevant data to improve outcomes and health, CMS should consider providing financial incentives to providers, Medicare Advantage plans, Medicaid plans, and commercial payers to collect and share SDOH data. Aligning incentives and protocols across CMS programs, commercial payers, and providers would ensure that stakeholders are working together to meet their community's needs.

Training & Education on Capturing & Using the Data

Survey respondents reported that the frontline clinical staff was primarily responsible for collecting SDOH data during a patient or caregiver visit. These frontline SDOH collectors were nurses (24 percent), followed by physicians (15 percent), and then registration or patient financial service representatives or operations staff (12 percent) (Figure 7). However, one in four respondents (26 percent) shared that they did not know who the primary collector of SDOH data was in their organization.

FIGURE 7

Primary Person Responsible for Collecting SDOH Data

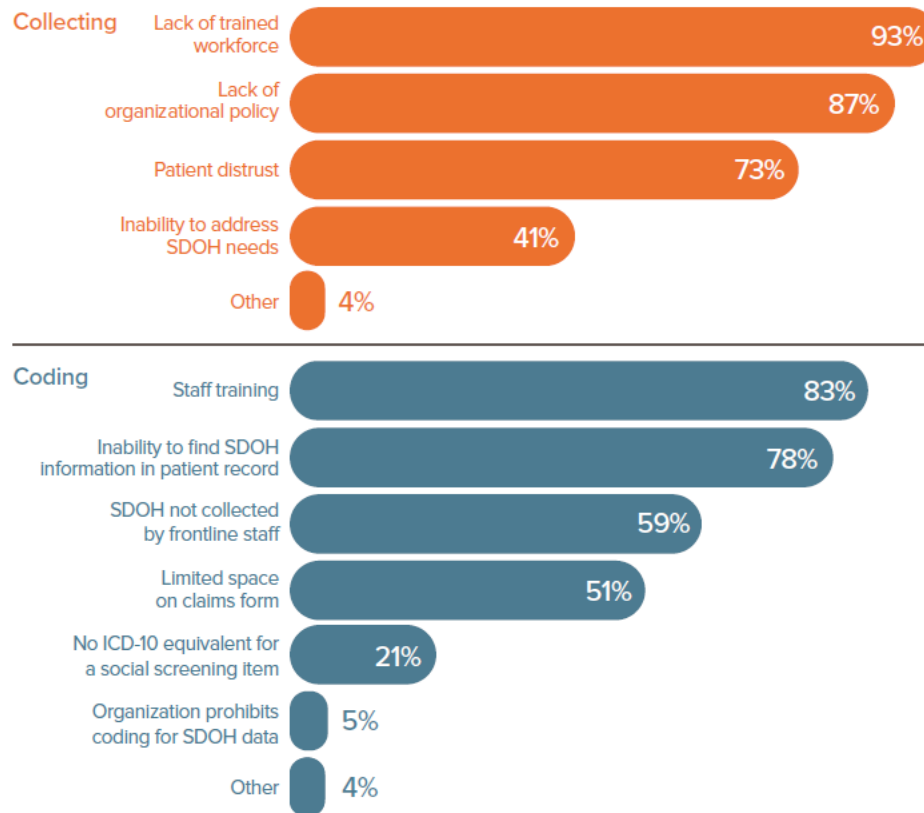


NOTE: Totals may not equal 100 percent due to rounding. QUESTION: Who is the primary person responsible for collecting SDOH data from the patient and/or caregiver during a patient visit? (N=2,889). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

Nearly eight in 10 survey respondents said that their organizations offered education and training to support the collection and use of SDOH data. Specifically, respondents indicated that they receive training on privacy protections and security standards (82 percent) and the American Hospital Association’s (AHA) Coding Clinic for ICD-10-CM/PCS guidance using SDOH Z-codes (80 percent) (Figure 8). Seventy-four percent indicated that they were trained to collect SDOH in culturally sensitive ways. Seventy-two percent reported training on document requirements to support accurate SDOH code assessments. These are all strong supporting indicators that SDOH data collection is prioritized at many organizations.

FIGURE 8

Challenges Experienced in Collecting & Coding SDOH Data Among Survey Respondents



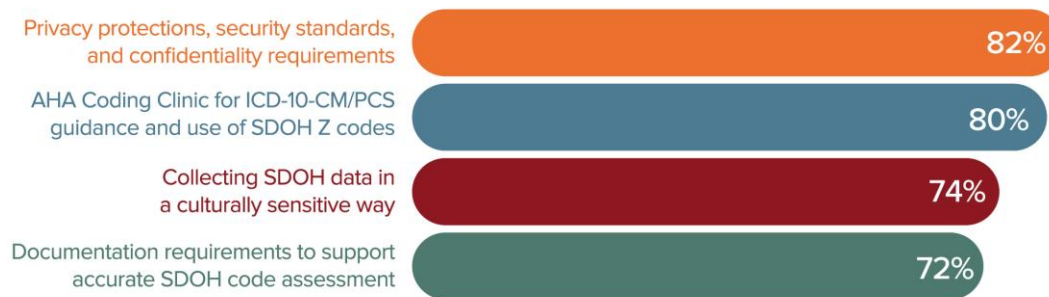
NOTE: Totals may not equal 100 percent due to rounding. QUESTIONS: Please rank the most pressing challenges when collecting SDOH data. Assign a rank to each item. (N = 2242); Please rank the most pressing challenges when coding SDOH data. Assign a rank to each item. (N = 2393). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

Although nearly eight in 10 respondents said that their organizations offer trainings on collecting and using SDOH data, they also shared recurring challenges in the collection and coding of this data.

A vast majority of respondents reported that workforce-related challenges were the top hindrance to collecting and coding SDOH data. Ninety three percent ranked the lack of a trained workforce as the top collection challenge. Consistent with issues on data collection, 83 percent of respondents listed staff training and education as a top three challenge when coding SDOH data (Figure 9). This suggests that current training and resources, while available, may be insufficient.

FIGURE 9

Education & Training Offered at Respondents' Organizations



NOTE: Totals may not equal 100 percent due to rounding. QUESTION: Does your organization offer any of the following education to you or others in your role? Select a response for each item. (N = 2,384). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

Other reported challenges were a lack of organizational policy on data collection and patient distrust in sharing SDOH data (87 and 73 percent, respectively).

Despite 72 percent of respondents indicating that their organization offers training and education on documentation requirements to support accurate SDOH code assessments (Figure 8), 78 percent said that they could not find SDOH information in the patient record (Figure 9). This might suggest that while operations staff know the documentation requirements needed to assign a code, the information might not be readily apparent in the documentation, is not being documented, or is documented in a part of the record that is not readily accessible to operations staff. This highlights the need to further train and educate clinical staff on what documentation is needed to support code assignment. Such training also provides an opportunity to bring together clinical and operations teams, to ensure that they are aligned when it comes to common SDOH terminology, documentation goals, and the value of having this information integrated into the patient's record.

Policy Recommendation #3:

Federal financial and technical support is needed to train providers and operations staff on how best to collect, code and use social needs information. This should include a focus on cultural competency coupled with the recognition that different care settings may require different approaches. It should also include continued and expanded research on how best to collect and code SDOH data, and the workforce skills needed to do so.

Government agencies, professional societies, and other organizations—such as AHIMA, CMS’ Office of Minority Health, CMS’ Center for Medicare & Medicaid Innovation, HL7’s Gravity Project—should also leverage their learning collaboratives to share best practices and guidance on the collection, coding, and use of clinically relevant SDOH data for care team members and operations staff, so that they can efficiently use existing knowledge.

This may include training appropriate staff on how to use standardized formats to collect and code the data from patients in ways that are effective and adhere to high standards of cultural competency, privacy, and confidentiality.

Communication Between Providers & Community Partners

To address social needs at both the individual and community levels, SDOH data must be incorporated into a variety of organizational goals and activities. A focus on SDOH is new for many providers and hardwiring these changes can be difficult. By meaningfully incorporating SDOH measures or activities into department and system goals, provider organizations can create lasting change. At the same time, it is important to note that an internal focus alone is not enough. Communication between providers and community-based organizations (CBOs) is essential to taking meaningful action on SDOH. However, survey respondents indicated that communication and integration between the health and social services sectors is often limited and inconsistent.

The survey found that the top two ways that organizations use SDOH data are to refer patients to CBOs and to identify and assess community-level needs. Yet, there are prevailing challenges in sharing SDOH information across the health care and social services sectors when working to facilitate community efforts to address social needs.

FIGURE 10

Organization Goals & Activities



NOTE: Totals may not equal 100 percent due to rounding. QUESTION: How does your organization use SDOH data that it collects? (N=2,787). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

A majority of respondents (82 percent) said that their organization made electronic referrals to CBOs or referral partners. However, when asked whether their organization had a closed-loop referral process, fewer (64 percent) said yes (Figure 11). The lack of interoperability or communication across organizations that identify needs (e.g., hospitals, health systems, and physician offices) and those most likely to have the expertise and resources to address these needs (e.g., CBOs) may limit the ability to measure the impact of the intervention.

Individual- and community-level interventions to address underlying social risk factors that contribute to health and well-being require cross-sector investment and collaboration. Health care systems and CBOs need better alignment on a core set of SDOH standards that are harmonized across platforms. They also need validated tools and processes to support closed-loop referrals, to demonstrate positive health outcomes as well as return on investment in SDOH interventions. While a limited number of these critical partnerships are in place, the survey indicates that much more must be done to close the loop between stakeholders, to achieve meaningful improvements in patient care and well-being. Federal government agencies, such as the U.S. Department of Health and Human Services and others – including Housing and Urban Development, Justice, and Transportation can play a critical role in facilitating these critical partnerships and should lead the way by allocating funding and technical resources to state and local government to address social needs.

FIGURE 11

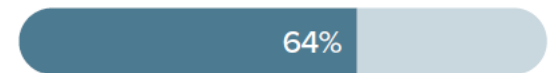
Organizations' Referral Processes

Organizations were more likely to make electronic referrals to CBOs or referral partners than to have a closed-loop referral process.

Electronic referrals to CBOs or referral partners



Closed-loop referral process



NOTE: Totals may not equal 100 percent due to rounding. QUESTIONS: Does your organization make electronic referrals to community-based organizations (CBOs) or referral partners? (N=1,131); Does your organization have a closed-loop referral process? (N=532). SOURCE: The 2022 AHIMA SDOH survey fielded by NORC and completed by 2,637 AHIMA members and non-members, Aug. 24–Sept. 9, 2022.

Policy Recommendation #4:

Federal government should provide funding, technical resources, and infrastructure to support coordination and connectivity at the state and local level between health care organizations and CBOs.

Many of the solutions to addressing SDOH needs rely on collaboration between the health and social services sectors. This type of cooperation is happening in pockets at the local level. Many providers are reticent to ask their patients about their SDOH needs without first having the community-based support system to which they can refer the patient so that these needs can be met. Federal incentives are needed for states to create better alignment—across coordinating agencies to improve coordination, collection, and, ultimately, impact.

UCLA Health, a leading academic medical center, is collecting SDOH data to enhance patient care.

UCLA Health’s analysis of 15,000 patient records from their emergency department and street medicine efforts determined 85% of ED visits were due to conditions that could have been prevented in the community.¹³ To combat this trend, UCLA Health has piloted a variety of data collection and outreach programs specifically devoted to individuals with serious medical conditions and underserved communities who often cannot reliably access medical treatment.

Across the organization, UCLA captures SDOH data on critical factors such as socio-economic status, physical environment, social support, food insecurity, education, and language. Starting in 2021 and 2022 respectively, UCLA Health patients are invited to fill out a Social Factors and *All About Me* questionnaire in their electronic patient portal before all telehealth or in-person appointments. This data is reviewed by the population health team, which includes representation from clinical and social work departments, to assist care teams with connecting patients to social services organizations that can aid with housing, economic security, and other needs.

UCLA Health is likewise determined to meet people where they are through its Homeless Health Care Collaborative, where a community care team travels directly to people who are unhoused. The community care team deploys medical students from the Geffen School of Medicine at UCLA and nursing care teams to document a patient’s type of built environment and any known medical conditions. Through generous funding and a focus on mission, the Collaborative has equipped vans with Wi-Fi, basic diagnostic services, and medication to address patients in real time. The team leverage the EHR remotely and there is an effort underway to consolidate and analyze this information to understand broader trends in the impact of housing and the built environment on health outcomes.

“When we do find those patients and we are able to create a process in the system to see them on some sort of cadence, we are able to collect data beyond unhoused...but how does the overall environment impact their overall health status? How does communication and transportation factor in? Once we accumulate that data we begin to tell some stories.”

*—Maria Caban Alizondo PhD, RHIT, FAHIMA
Director, Health Information Management
Services Medical Information Technologies Services,
UCLA Health*

¹³ <https://www.uclahealth.org/why-choose-us/about/homeless-healthcare-collaborative>

Conclusion

The complex nature of the collection, coding, use, and exchange of SDOH data requires coordinated action across the health and social services sectors. Despite the difficulty of achieving this, it is vital. Coordination and alignment across stakeholders has the potential to meaningfully improve the lives of the most vulnerable members of our society by advancing health equity.

The health care system is an essential component of this effort. Providers, health care organizations, and operations staff across care settings have a critical role to play in collecting, using, and sharing actionable SDOH data. By focusing on actions that enhance the standardization and integration of this data—including sufficient training and education of key staff so that they can excel at a myriad SDOH-related activities—health care leaders can set the groundwork for future impact. However, it's important to emphasize that the health care system cannot act alone. Coordination between health care systems, CBOS, and social services agencies at local, state, and federal levels is crucial to delivering services that meet complex needs and lead to success.

Limitations

Surveys can provide meaningful insight into the attitudes, opinions, and experiences of respondents. However, given the nuance of this issue, additional research on this topic is essential to adding further depth and detail to what we have learned here. For example, holding focus groups with respondents and other key stakeholders would provide valuable context and clarity that would help us develop more specific and actionable recommendations. To create greater equity and improve the experiences and outcomes of vulnerable populations, it is critically important that such research also include the voices of those who will be impacted. This may entail conversations with patients and CBOs that deliver critical social services.

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prediabetes?



TO JOIN CDC'S NATIONAL DPP* LIFESTYLE CHANGE PROGRAM:

Meet ALL of these



18 YEARS
OR OLDER

AND



OVERWEIGHT

AND



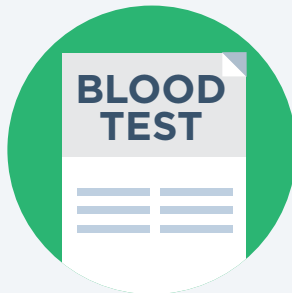
NOT DIAGNOSED
WITH T1 OR T2
DIABETES

AND



NOT
CURRENTLY
PREGNANT

AND Meet ONE of these



DIAGNOSED
WITH
PREDIABETES

OR



PREVIOUSLY
DIAGNOSED WITH
GESTATIONAL
DIABETES

OR



HIGH-RISK RESULT
ON PREDIABETES
RISK TEST

WWW.CDC.GOV/PREDIABETES/RISKTEST





SCREENING FOR THE

HUNGER VITAL SIGN

How often do you worry if food will run out before you receive money to purchase more?

If never true, proceed to next question

If often true or sometimes true, then patient **is food insecure**

How often do you worry that food will not last and that you will not have money to get more?

If never true, patient is **not food insecure**

If often true or sometimes true, then patient **is food insecure**



Resources:

Phone Numbers

Physicians Support Line: 1 (888) 409 – 0141

For physicians/medical students to help navigate the many intersections of professional and personal life. It is free and confidential with no appointment necessary. Open 7 days a week, 8:00 AM – 1:00 AM ET

COPEs: (918) 744 – 4800

Serves: Tulsa County

Mental Health Services of Southern Oklahoma: (800) 522 – 1090

Serves: Bryan, Carter, Garvin, Love, Marshall, Murray, Pontotoc, and Seminole Counties

National Suicide Prevention Hotline: (800) 273 – 8255

For Mental Health Referrals

Blue Cross Blue Shield: <https://www.bcbsok.com/find-a-doctor-or-hospital>

United Healthcare: <https://www.uhc.com/find-a-physician>

Humana: <https://www.humana.com/finder/medical?customerId=1>

Aetna: <https://www.aetna.com/individuals-families/find-a-doctor.html>

Cigna: [https://hcpdirectory.cigna.com/web/public/consumer/directory?providerGroupCode=B&title=Psychiatrists %26 Nurse Practitioners&searchCategoryCode=HSC02](https://hcpdirectory.cigna.com/web/public/consumer/directory?providerGroupCode=B&title=Psychiatrists%26NursePractitioners&searchCategoryCode=HSC02)

Tricare: <https://www.tricare.mil/FindDoctor>

Medicare: <https://www.medicare.gov/care-compare/?providerType=Physician&redirect=true - search>

Medicaid: <http://apps.okhca.org/providersearch/>

Additional Resources

Employee Assistance Program (EAP)

Typically offers 6 sessions and provides support finding additional referrals

<https://suicidepreventionlifeline.org/>

Mental Health First Aid: <https://www.thenationalcouncil.org/about/mental-health-first-aid/>
Apps such as: Headspace, Calm, Insight Timer

Talking Points for Initial Outreach to Health Care Providers (HCPs) and HCP Associations

The talking points that follow provide the key messages that will help HCPs understand the National Diabetes Prevention Program (National DPP) lifestyle change program and encourage them to refer their patients to the program. They are not meant to be used verbatim or read like a script. Adapt them to your style of speaking so that they are easier to recall and share. These talking points cover a variety of areas and topics related to the program, and you will not need to use them all in every conversation. Choose the most relevant messages as you tailor your conversations with HCPs. Customize the red text in brackets with your own program information.

ABOUT THE PROGRAM

- **[Insert name of program]** is part of the National DPP lifestyle change program, an evidence-based program proven to help patients with prediabetes reduce the risk of developing type 2 diabetes with achievable and lasting lifestyle changes. The program can improve patients' overall health by helping them lose weight, eat better, and be more active.
- The program is based on the Diabetes Prevention Program research study (2002), led by the National Institutes of Health (NIH) and supported by the Centers for Disease Control and Prevention (CDC), which showed that lifestyle change was nearly twice as effective (58% vs. 31%) as taking prescription medicines in reducing the risk of type 2 diabetes among people with prediabetes.
- This research has shown that weight loss of 5–7% (10–12 lbs. for a person weighing 200 lbs.) achieved by making healthier food choices and increasing physical activity to at least 150 minutes per week reduced the risk of developing type 2 diabetes by 58% in people at high risk for the disease, and up to 71% among people aged 60 and older.¹
- When patients join a program, they'll get a full year of support. The program is led by a trained lifestyle coach and uses a CDC-approved curriculum. Patients will attend weekly one-hour core sessions for up to six months, followed by monthly sessions for the rest of the year to make new, healthy habits stick and keep them from slipping back into old habits.
- Participants' progress is carefully monitored, as each program is required to track and report enrollee participation, behavior, and health changes.
- With the changes that participants make to their diet and physical activity, they may be able to better manage other conditions and reduce or avoid taking certain medications.
- CDC recommends that you refer patients to a National DPP lifestyle change program such as **[insert name of program]** if they have established risk factors for type 2 diabetes, a diagnosis of prediabetes, or a previous diagnosis of gestational diabetes.
- The program is offered **[insert information about location, meeting times, virtual program offerings, etc.]**.
- **[Insert name of program]** may be covered by insurance.

¹Knowler WC, Barrett-Connor E, Fowler SE, et al. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med.* 2002;346(6):393-403.

- CDC established the Diabetes Prevention Recognition Program to ensure quality control and adherence to scientific standards for each organization delivering the National DPP lifestyle change program.
- You can learn more about the program by calling [insert name and phone number] or visiting www.cdc.gov/diabetes/prevention or [insert local website].

FACTS ABOUT PREDIABETES

- An estimated 88 million U.S. adults have prediabetes, putting them at increased risk of type 2 diabetes, heart attack, and stroke. More than 8 in 10 adults with prediabetes don't know they have it.²
- Diabetes remains a leading cause of blindness, kidney failure, and lower limb amputation, increasing these risks to 6–10 times that of people without diabetes. It also increases risks of macrovascular conditions such as heart attack and stroke by 60–80%.²
- A diagnosis of prediabetes is indicated by:
 - » An A1C value between 5.7% and 6.4%;
 - » A fasting blood glucose value between 100 and 125 mg/dL; or
 - » An oral glucose tolerance test value between 140 and 199 mg/dL.³
- As an HCP, you see people who are at risk for developing type 2 diabetes every day. Risk factors include:
 - » Being 45 years of age or older
 - » Being overweight
 - » Having a parent, brother, or sister with type 2 diabetes
 - » Being physically active less than 3 times a week
 - » Ever having gestational diabetes
- Race and ethnicity are also factors: African Americans, Hispanic/Latino Americans, American Indians, Alaska Natives and some Pacific Islanders, and Asian Americans are at higher risk.

THE ROLE OF HCPS

- Patients look to their doctor more than any other source for information on promoting health and preventing diseases, especially when they are faced with the potential for a serious chronic condition like type 2 diabetes.
- You likely see patients every day who have prediabetes or are otherwise at high risk for type 2 diabetes, and they don't know it. As a health care provider, you play a vital role in helping prevent or delay the onset of type 2 diabetes by screening them for prediabetes and referring them to a CDC-recognized organization offering the National DPP lifestyle change program such as [insert name of program].
- Referring your patients with prediabetes to take part in the National DPP lifestyle change program, such as [insert name of program], is simple, quick, and effective.

²Centers for Disease Control and Prevention. *National Diabetes Statistics Report, 2020*. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Dept of Health and Human Services; 2020.

³American Diabetes Association. Standards of Medical Care in Diabetes—2012. *Diabetes Care*. 2012;35 (Supp 1):S12, table 2. https://care.diabetesjournals.org/content/diacare/35/Supplement_1/S11.full.pdf.

Physical Activity Vital Sign

1. On average, how many days per week do you engage in moderate to vigorous physical activity (like a brisk walk)? _____ days
 2. On average, how many minutes do you engage in physical activity at this level? _____ minutes
- Total minutes per week of physical activity (multiply #1 by #2) _____ minutes per week**

Incorporate the Physical Activity Vital Sign (PAVS) into your electronic health record and patient intake forms. Calculations may be programmed and the sedentary patient flagged for referral or counseling.

Using the Physical Activity Vital Sign

National guidelines recommend 150 minutes per week of moderate intensity physical activity. That's just 2 ½ hours out of 168 hours in a week! In place of moderate intensity activity, you can complete 75 minutes of vigorous intensity activity, or an equivalent combination of moderate and vigorous intensity physical activity.

- 1 minute of vigorous activity is equal to 2 minutes of moderate activity.
- You can perform activity in multiple “bouts” of any length throughout the day to add up to the recommended 150 minutes/week.

Although light intensity physical activity (such as a casual walk) is not assessed by the PAVS, it positively impacts health. Wherever they are on their physical activity journey, encourage patients to become and remain active. Promote active living throughout the day to reduce sedentary time (less screen time!).



What's Moderate Intensity?

- You can talk, but not sing, while performing the activity.
- Examples: brisk walking, slow biking, doubles tennis, various forms of dance, active home chores and gardening, etc.



What's Vigorous Intensity?

- Vigorous intensity: You can no longer talk easily during the activity and are somewhat out of breath.
- Examples: jogging, fast bicycling, singles tennis, aerobic exercise class, swimming laps, etc.

The Physical Activity Vital Sign – Additional Option

- A comprehensive assessment of physical activity should include muscle strengthening exercises as recommended by the Physical Activity Guidelines for Americans: Adults should do muscle strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 or more days a week.
- If you wish to add a question on muscle strengthening activities, we recommend the following:



How many days a week do you perform muscle strengthening exercises, such as bodyweight exercises or resistance training? _____ days

PREDIABETES: DOCUMENTATION AND PROPER CODING

SCREEN FOR

- Physical Inactivity
- First degree relative with Diabetes
- Hypertension
- HDL-C <35 mg/dL and/or a TG >250 mg/dL
- A1C \geq 5.7%, IGT, or IFG on previous testing
- Obesity, acanthosis nigricans, or PCOS
- History of CVD
- Women who delivered a baby >9 lb or were diagnosed with gestational diabetes
- History of cardiovascular disease



RISK FACTORS

- Diet (Red Meat, Processed Meat, Sugar Sweetened Beverages)
- Age (Chances increase after age 45)
- Race / Ethnicity (African Americans, Native Americans and Asians are more likely to develop)
- Obstructive Sleep Apnea
- Physical Inactivity
- Overweight / Obese
- Hypertension
- Smoking
- Abnormal Lipid Metabolism
- High Plasma Glucose
- Family History



SYMPTOMS

- Frequent Urination
- Fatigue
- Increased Thirst
- Blurred Vision
- Numbness / Tingling in Feet or Hands
- Slow Healing Sores
- Unintended Weight Loss
- Increase in Hunger
- Frequent Infections



PREVENTION

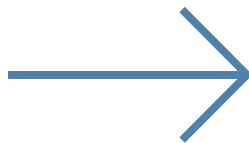
- Eating nutritious foods
- Losing weight
- Controlling Blood Pressure and Cholesterol
- Being active
- Not Smoking
- Refer patient to the DPP if diagnosed with prediabetes



DOCUMENTATION



If the necessary criteria is met document the term "Prediabetes."



- Age \geq 18, and
- BMI \geq 25 (BMI \geq 22 for Asian individuals)
- Any of these test values (test performed within 12 months):
 - HbA1C (5.7-6.4%)
 - Fasting plasma glucose (100-125 mg/dL)
 - Oral glucose tolerance test (140-199 mg/dL)

PREDIABETES - R73.03

This code cannot be used alongside:

- Type 1 & 2 Diabetes
- Gestational Diabetes
- Neonatal Disorders
- Post-Surgical Hyperinsulinemia
- Hypoglycemia

This can be coded when:

- abnormal blood glucose levels are identified (that does not meet the definition of diabetes)
- A noted elevated A1c Level is present
- Or an abnormal glucose tolerance test is listed

Prediabetes Risk Test

1. How old are you?

- Younger than 40 years (0 points)
- 40–49 years (1 point)
- 50–59 years (2 points)
- 60 years or older (3 points)

Write your score in the boxes below

2. Are you a man or a woman?

- Man (1 point)
- Woman (0 points)

3. If you are a woman, have you ever been diagnosed with gestational diabetes?

- Yes (1 point)
- No (0 points)

4. Do you have a mother, father, sister, or brother with diabetes?

- Yes (1 point)
- No (0 points)

5. Have you ever been diagnosed with high blood pressure?

- Yes (1 point)
- No (0 points)

6. Are you physically active?

- Yes (0 points)
- No (1 point)

7. What is your weight category?

(See chart at right)

Height	Weight (lbs.)		
4'10"	119-142	143-190	191+
4'11"	124-147	148-197	198+
5'0"	128-152	153-203	204+
5'1"	132-157	158-210	211+
5'2"	136-163	164-217	218+
5'3"	141-168	169-224	225+
5'4"	145-173	174-231	232+
5'5"	150-179	180-239	240+
5'6"	155-185	186-246	247+
5'7"	159-190	191-254	255+
5'8"	164-196	197-261	262+
5'9"	169-202	203-269	270+
5'10"	174-208	209-277	278+
5'11"	179-214	215-285	286+
6'0"	184-220	221-293	294+
6'1"	189-226	227-301	302+
6'2"	194-232	233-310	311+
6'3"	200-239	240-318	319+
6'4"	205-245	246-327	328+
	1 Point	2 Points	3 Points
	You weigh less than the 1 Point column (0 points)		



Total score:

Adapted from Bang et al., Ann Intern Med 151:775-783, 2009. Original algorithm was validated without gestational diabetes as part of the model.

If you scored 5 or higher

You are at increased risk for having prediabetes and are at high risk for type 2 diabetes. However, only your doctor can tell for sure if you have type 2 diabetes or prediabetes, a condition in which blood sugar levels are higher than normal but not high enough yet to be diagnosed as type 2 diabetes. **Talk to your doctor to see if additional testing is needed.**

If you are African American, Hispanic/Latino American, American Indian/Alaska Native, Asian American, or Pacific Islander, you are at higher risk for prediabetes and type 2 diabetes. Also, if you are Asian American, you are at increased risk for type 2 diabetes at a lower weight (about 15 pounds lower than weights in the 1 Point column). Talk to your doctor to see if you should have your blood sugar tested.

You can reduce your risk for type 2 diabetes

Find out how you can reverse prediabetes and prevent or delay type 2 diabetes through a **CDC-recognized lifestyle change program** at <https://www.cdc.gov/diabetes/prevention/lifestyle-program>.

Risk Test provided by the American Diabetes Association and the Centers for Disease Control and Prevention.



Quality ID #128: Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan

- National Quality Strategy Domain: Community/Population Health
- Meaningful Measure Area: Preventive Care

2022 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients aged 18 years and older with a BMI documented during the current encounter or within the previous twelve months AND who had a follow-up plan documented if most recent BMI was outside of normal parameters.

INSTRUCTIONS:
There is no diagnosis associated with this measure. This measure is to be submitted a minimum of **once per performance period** for patients seen during the performance period. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided at the time of the qualifying encounter and the measure-specific denominator coding. The BMI may be documented in the medical record of the provider or in outside medical records obtained by the provider. If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous twelve months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above or below normal parameters” (See Definitions for examples of follow-up plan treatments). If more than one BMI is submitted during the measurement period, the most recent BMI will be used to determine if the performance has been met. Review the exclusions and exceptions criteria to determine those patients that BMI measurement may not be appropriate or necessary.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third-party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third-party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third-party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients aged 18 and older on the date of the encounter with at least one eligible encounter during the measurement period

- Definition:**
Not Eligible for BMI Screening or Follow-Up Plan (Denominator Exclusions) – A patient is not eligible if one or more of the following reasons are documented:
- Patients receiving palliative or hospice care on the date of the current encounter or any time prior to the current encounter
 - Patients who are pregnant on the date of the current encounter or any time during the measurement period prior to the current encounter

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the

Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for MIPS CQMs.

Denominator Criteria (Eligible Cases):

Patients aged ≥18 years on date of encounter

AND

Patient encounter during the performance period (CPT or HCPCS): 90791, 90792, 90832, 90834, 90837, 96156, 96158, 97161, 97162, 97163, 97165, 97166, 97167, 97802, 97803, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99236, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99315, 99316, 99318, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99339, 99340, 99385*, 99386*, 99387*, 99395*, 99396*, 99397*, 99401*, 99402*, D7111, D7140, D7210, D7220, D7230, D7240, D7241, D7250, D7251, G0101, G0108, G0270, G0271, G0402, G0438, G0439, G0447, G0473

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND NOT

DENOMINATOR EXCLUSIONS:

Documentation stating the patient has received or is currently receiving palliative or hospice care: G9996

OR

Documentation of patient pregnancy anytime during the measurement period prior to and including the current encounter: G9997

NUMERATOR:

Patients with a documented BMI during the encounter or during the previous twelve months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous twelve months of the current encounter

Definitions:

Normal BMI Parameters – Age 18 years and older BMI ≥ 18.5 and < 25 kg/m²

BMI – Body mass index (BMI) is a number calculated using the Quetelet index: weight divided by height squared (W/H²) and is commonly used to classify weight categories. “BMI” can be calculated using:

$$\text{Metric Units: BMI} = \text{Weight (kg)} / (\text{Height (m)} \times \text{Height (m)})$$

OR

$$\text{English Units: BMI} = \text{Weight (lbs)} / (\text{Height (in)} \times \text{Height (in)}) \times 703$$

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of a BMI outside of normal parameters. A “follow-up” plan may include, but is not limited to:

- Documentation of education
- Referral (for example a Registered Dietitian Nutritionist (RDN), occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon), for lifestyle/behavioral therapy
- Pharmacological interventions
- Dietary supplements
- Exercise counseling
- Nutrition counseling

Patients with a Documented Reason for Not Screening BMI (Denominator Exception) -

Patient Reason:

- Patients who refuse measurement of height and/or weight on the date of the current encounter or any time during the measurement period prior to the current encounter

OR

Medical Reason:

- Patients with a documented medical reason for not documenting BMI such as patients in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

Patients with a Documented Reason for Not Documenting a Follow-up Plan for BMI Outside Normal Parameters (Denominator Exception) -

Medical Reason(s):

- Patients (e.g., elderly patients 65 years of age or older) for whom weight reduction/weight gain would complicate other underlying health conditions such as illness or physical disability, mental illness, dementia, confusion, or nutritional deficiency such as vitamin/mineral deficiency; patients in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status

Numerator Instructions:

- **Height and Weight** - An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within twelve months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
 - The BMI may be documented in the medical record of the provider or in outside medical records obtained by the provider.
 - If more than one BMI is reported during the measurement period, the most recent BMI will be used to determine if the performance has been met.
- **Follow-Up Plan** – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous twelve months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI, outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above or below normal parameters”. (See Definitions for examples of follow-up plan treatments).
- **Performance Met for G8417 & G8418** –
 - If the provider documents a BMI and a follow-up plan at the current encounter **OR**
 - If the patient has a documented BMI within the previous twelve months of the current encounter, the provider documents a follow-up plan at the current encounter **OR**
 - If the patient has a documented BMI within the previous twelve months of the current encounter **AND** the patient has a documented follow-up plan for a BMI outside normal parameters within the previous twelve months of the current encounter

Numerator Options:

Performance Met:

BMI is documented within normal parameters and no follow-up plan is required (**G8420**)

OR

Performance Met:

BMI is documented as above normal parameters and a follow-up plan is documented (**G8417**)

OR

Performance Met:

BMI is documented as below normal parameters and a follow-up plan is documented (**G8418**)

OR

Denominator Exception:

BMI not documented due to medical reason OR patient refusal of height or weight measurement (**G2181**)

OR

Denominator Exception:

BMI is documented as being outside of normal parameters, follow-up plan is not completed for documented medical reason (**G9716**)

OR

Performance Not Met:

BMI not documented and no reason is given (**G8421**)

OR

Performance Not Met:

BMI documented outside of normal parameters, no follow-up plan documented, no reason given (**G8419**)

RATIONALE:

BMI Above Normal Parameters

“Obesity is a chronic, multifactorial disease with complex psychological, environmental (social and cultural), genetic, physiologic, metabolic and behavioral causes and consequences. The prevalence of overweight and obese people is increasing worldwide at an alarming rate in both developing and developed countries. Environmental and behavioral changes brought about by economic development, modernization and urbanization have been linked to the rise in global obesity. The health consequences are becoming apparent (Fitch et al., 2013).”

More than a third of U.S. adults have a body mass index [BMI] ≥ 30 kg/m² and are at increased risk for diabetes, cardiovascular disease (CVD), and obstructive sleep apnea (Flegal et al., 2012; Ogden et al., 2015; Dong et al., 2020). Hales et al. (2017) reported that the prevalence of obesity among adults and youth in the United States was 39.8 percent and 18.5 percent respectively, from 2015–2016. Furthermore, the prevalence of obesity in adults increased to 42.4 percent in 2018, with the highest percentage among adults in the 40–59 age bracket compared with other age groups (Hales et al., 2017). Hales et al. (2020) also disaggregated the data according to race/ethnicity and noted that obesity prevalence was higher among non-Hispanic Black adults and Hispanic adults when compared with other races and ethnicities. Obesity prevalence was lowest among non-Hispanic Asian men and women. Among men, obesity prevalence was higher among Hispanic men compared with non-Hispanic Black men and non-Hispanic White men. Obesity prevalence was higher among Hispanic men compared with non-Hispanic Black men. Among women, the prevalence among non-Hispanic Black women was 56.9 percent, which was higher than all other race/ethnicities. In general, the prevalence of obesity in the U.S. remains higher than the Healthy People 2020 goal of 30.5 percent among adults (Hales et al., 2020).

BMI continues to be a common and reasonably reliable measurement to identify overweight and obese adults who may be at an increased risk for future morbidity. Although good quality evidence supports obtaining a BMI, it is important to recognize it is not a perfect measurement. For example, BMI and its associated disease and mortality risk appear to vary among ethnic subgroups. Black/African Americans appear to have the lowest mortality risk at a BMI of 26.2-28.5 kg/m² in Black women and 27.1-30.2 kg/m² in Black men. In contrast, Asian populations may experience lowest mortality rates starting at a BMI of 23 to 24 kg/m². The correlation between BMI and diabetes risk also varies by ethnicity (LeBlanc et al., 2011, p.2-3). Moreover, BMI is not a direct measure of adiposity and as a consequence, it can over or underestimate adiposity. However, overall, BMI is a derived value that correlates well with total body fat and markers of secondary complications, e.g., hypertension and dyslipidemia (Barlow & the Expert Committee, 2007).

Furthermore, it is important to enhance beneficiary access to appropriate treatments for obesity, which could result in decreased healthcare costs and lower obesity rates. Behavioral weight management treatment has been identified as an effective first-line treatment for obesity with an average initial weight loss of 8-10 percent. This percentage weight loss is associated with a significant risk reduction for diabetes and CVD (Wadden, Butryn & Wilson, 2007). Evidence also shows that when provided 14 or more high-intensity behavioral intervention sessions of face-to-face individual or group treatment across 6 months, participants lose up to 8 percent of their weight during that time and experience improvements in heart disease risk factors and quality of life (Wadden, Tronieri, & Butryn, 2020). There is also evidence that high-intensity behavioral counseling is effective, whether delivered in-person, by phone, or electronically (Tronieri et al., 2019). Moreover, Intensive Behavioral Therapy (IBT) for obesity provided by Registered Dietitian Nutritionists for 6-12 months shows significant mean weight loss of up to 10

percent of body weight, maintained over one year's time (Raynor & Champagne, 2016). Despite the evidence that supports weight management counseling, the rate of use in primary care for patients with obesity decreased by 10 percent from 39.9 percent in 1995-1996 to 29.9 percent in 2007-2008 (Kraschnewski et al., 2013). Weight management counseling during primary care visits further declined from 33 percent to 21 percent between 2008-2009 and 2012-2013. This suggests that obesity management in primary care remains suboptimal (Fitzpatrick & Stevens, 2017).

Therefore, screening for BMI and follow-up is critical and will help in reaching the quality goals of population health and cost reduction. However, due to concerns for other underlying conditions (such as bone health) or nutrition related deficiencies providers are cautioned to use their best clinical judgment and when considering weight management programs for overweight patients, especially the elderly (National Heart, Lung, and Blood Institute [NHLBI] Obesity Education Initiative, 1998, p. 91).

BMI Below Normal Parameters

On the other end of the body weight spectrum is underweight (BMI <18.5 kg/m²), which is equally detrimental to population health. When compared to normal weight individuals (BMI 18.5-25 kg/m²), underweight individuals have significantly higher death rates with a Hazard Ratio of 2.27 and 95 percent confidence intervals (CI) = 1.78, 2.90 (Borrell & Samuel, 2014).

Poor nutrition or underlying health conditions can result in underweight (Fryer & Ogden, 2012). The National Health and Nutrition Examination Survey (NHANES) results from 2007-2010 indicate that women are more likely to be underweight than men (Centers for Disease Control and Prevention, 2012). However, all patients should be equally screened for underweight and followed up with nutritional counseling to reduce mortality and morbidity associated with underweight.

CLINICAL RECOMMENDATION STATEMENTS:

All adults should be screened annually using a BMI measurement. BMI measurements ≥ 25 kg/m² should be used to initiate further evaluation of overweight or obesity after taking into account age, gender, ethnicity, fluid status, and muscularity; therefore, clinical evaluation and judgment must be used when BMI is employed as the anthropometric indicator of excess adiposity, particularly in athletes and those with sarcopenia (Garvey, et al., 2016 AACE/ACE Guidelines, 2016. pp. 12-13) (Grade A).

Overweight and Underweight Categories:

Underweight <18.5; Normal weight 18.5-24.9; Overweight 25-29.9; Obese class I 30-34.9; Obese class II 35-39.9; Obese class III ≥ 40 (Garvey, et al., 2016 AACE/ACE Guidelines, 2016. p. 15).

BMI cutoff point value of ≥ 23 kg/m² should be used in the screening and confirmation of excess adiposity in Asian adults (Garvey, et al., 2016 AACE/ACE Guidelines, 2016,. p. 13) (Grade B).

Lifestyle/Behavioral Therapy for Overweight and Obesity should include behavioral interventions that enhance adherence to prescriptions for a reduced-calorie meal plan and increased physical activity (behavioral interventions can include: self-monitoring of weight, food intake, and physical activity; clear and reasonable goal-setting; education pertaining to obesity, nutrition, and physical activity; face-to-face and group meetings; stimulus control; systematic approaches for problem solving; stress reduction; cognitive restructuring [i.e., cognitive behavioral therapy], motivational interviewing; behavioral contracting; psychological counseling; and mobilization of social support structures) (Garvey, et al., 2016 AACE/ACE Guidelines, 2016. p. 22) (Grade A).

Behavioral lifestyle intervention should be tailored to a patient's ethnic, cultural, socioeconomic, and educational background (Garvey, et al., 2016 AACE/ACE Guidelines, 2016. p. 22) (Grade B).

The U.S. Preventive Services Task Force (USPSTF) recommends that clinicians offer or refer adults with a BMI of 30 kg/m² or higher to intensive, multicomponent behavioral interventions.

Interventions:

- Effective intensive behavioral interventions were designed to help participants achieve or maintain a weight loss of at least five percent through a combination of dietary changes and increased physical activity
- Most interventions lasted for one to two years, and the majority had at least 12 sessions in the first year
- Most behavioral interventions focused on problem solving to identify barriers, self-monitoring of weight, peer support, and relapse prevention
- Interventions also provided tools to support weight loss or weight loss maintenance (e.g., pedometers, food scales, or exercise videos) (Grade B) (USPSTF, 2018).

Nutritional safety for the elderly should be considered when recommending weight reduction. “A clinical decision to forego obesity treatment in older adults should be guided by an evaluation of the potential benefits of weight reduction for day-to-day functioning and reduction of the risk of future cardiovascular events, as well as the patient’s motivation for weight reduction. Care must be taken to ensure that any weight reduction program minimizes the likelihood of adverse effects on bone health or other aspects of nutritional status” (NHLBI Obesity Education Initiative, 1998, p. 91) (Evidence Category D). In addition, weight reduction prescriptions in older persons should be accompanied by proper nutritional counseling and regular body weight monitoring (NHLBI Obesity Education Initiative, 1998, p. 91).

The possibility that a standard approach to weight loss will work differently in diverse patient populations must be considered when setting expectations about treatment outcomes (NHLBI Obesity Education Initiative, 1998, p. 97) (Evidence Category B).

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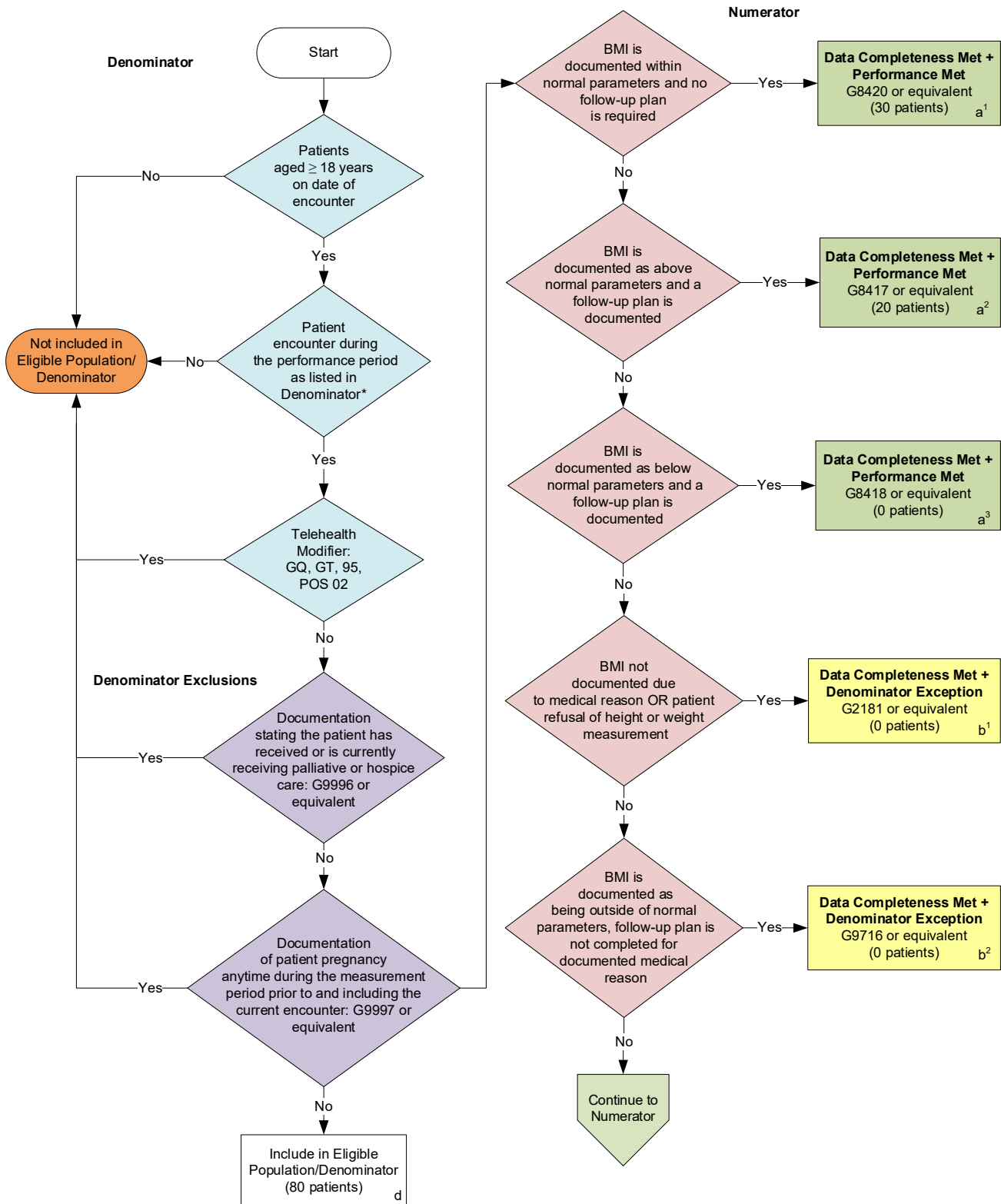
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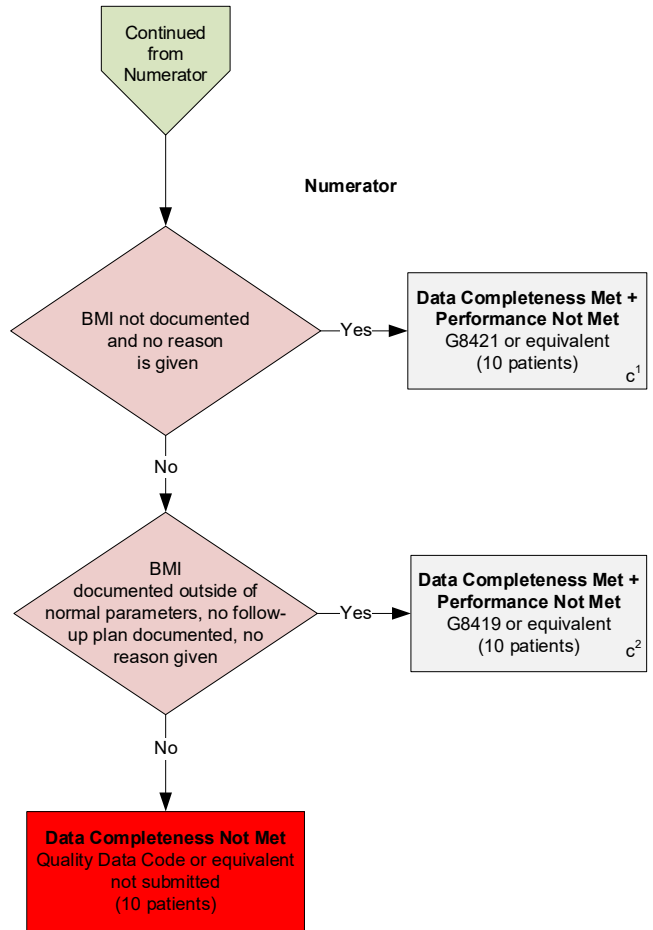
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**2022 Clinical Quality Measure Flow for Quality ID #128:
Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan**

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.





SAMPLE CALCULATIONS

Data Completeness=

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{+a}^3\text{=50 patients)} + \text{Denominator Exception (b}^1\text{+b}^2\text{=0 patients)} + \text{Performance Not Met (c}^1\text{+c}^2\text{=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a}^1\text{+a}^2\text{+a}^3\text{=50 patients)}}{\text{Data Completeness Numerator (70 patients) – Denominator Exception (b}^1\text{+b}^2\text{=0 patients)}} = \frac{50 \text{ patients}}{70 \text{ patients}} = 71.43\%$$

* See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Intermediate

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**2022 Clinical Quality Measure Flow Narrative for Quality ID #128:
Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan**

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.

1. Start with Denominator
2. Check *Patients aged greater than or equal to 18 years on date of encounter*:
 - a. If *Patients aged greater than or equal to 18 years on date of encounter* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
 - b. If *Patients aged greater than or equal to 18 years on date of encounter* equals Yes, proceed to check *Patient encounter during the performance period as listed in Denominator**.
3. Check *Patient encounter during the performance period as listed in Denominator**:
 - a. If *Patient encounter during the performance period as listed in Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
 - b. If *Patient encounter during the performance period as listed in Denominator** equals Yes, proceed to check *Telehealth Modifier*.
4. Check *Telehealth Modifier*:
 - a. If *Telehealth Modifier* equals No, proceed to check *Documentation stating the patient has received or is currently receiving palliative or hospice care*.
 - b. If *Telehealth Modifier* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
5. Check *Documentation stating the patient has received or is currently receiving palliative or hospice care*:
 - a. If *Documentation stating the patient has received or is currently receiving palliative or hospice care* equals No, proceed to check *Documentation of patient pregnancy anytime during the measurement period prior to and including the current encounter*.
 - b. If *Documentation stating the patient has received or is currently receiving palliative or hospice care* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
6. Check *Documentation of patient pregnancy anytime during the measurement period prior to and including the current encounter*:
 - a. If *Documentation of patient pregnancy anytime during the measurement period prior to and including the current encounter* equals No, include in *Eligible Population/Denominator*.
 - b. If *Documentation of patient pregnancy anytime during the measurement period prior to and including the current encounter* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.
7. Denominator Population
 - a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
8. Start Numerator

9. Check *BMI is documented within normal parameters and no follow-up plan is required*:
 - a. If *BMI is documented within normal parameters and no follow-up plan is required* equals Yes, include in *Data Completeness Met and Performance Met*.
 - *Data Completeness Met and Performance Met* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a¹ equals 30 patients in Sample Calculation.
 - b. If *BMI is documented within normal parameters and no follow-up plan is required* equals No, proceed to check *BMI is documented as above normal parameters and a follow-up plan is documented*.
10. Check *BMI is documented as above normal parameters and a follow-up plan is documented*:
 - a. If *BMI is documented as above normal parameters and a follow-up plan is documented* equals Yes, include in *Data Completeness Met and Performance Met*.
 - *Data Completeness Met and Performance Met* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a² equals 20 patients in the Sample Calculation.
 - b. If *BMI is documented as above normal parameters and a follow-up plan is documented* equals No, proceed to check *BMI is documented as below normal parameters and a follow-up plan is documented*.
11. Check *BMI is documented as below normal parameters and a follow-up plan is documented*:
 - a. If *BMI is documented as below normal parameters and a follow-up plan is documented* equals Yes, include in *Data Completeness Met and Performance Met*.
 - *Data Completeness Met and Performance Met* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a³ equals 0 patients in the Sample Calculation.
 - b. If *BMI is documented as below normal parameters and a follow-up plan is documented* equals No, proceed to check *BMI not documented due to medical reason OR patient refusal of height or weight measurement*.
12. Check *BMI not documented due to medical reason OR patient refusal of height or weight measurement*:
 - a. If *BMI not documented due to medical reason OR patient refusal of height or weight measurement* equals Yes, include in *Data Completeness Met and Denominator Exception*.
 - *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b¹ equals 0 patients in the Sample Calculation.
 - b. If *BMI not documented due to medical reason OR patient refusal of height or weight measurement* equals No, proceed to check *BMI is documented as being outside of normal parameters, follow-up plan is not completed for documented medical reason*.
13. Check *BMI is documented as being outside of normal parameters, follow-up plan is not completed for documented medical reason*:
 - a. If *BMI is documented as being outside of normal parameters, follow-up plan is not completed for documented medical reason* equals Yes, include in *Data Completeness Met and Denominator Exception*.

- *Data Completeness Met and Denominator Exception* letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b² equals 0 patients in the Sample Calculation.
- b. If *BMI is documented as being outside of normal parameters, follow-up plan is not completed for documented medical reason* equals No, proceed to check *BMI not documented and no reason is given*.
14. Check *BMI not documented and no reason is given*:
- a. If *BMI not documented and no reason is given* equals Yes, include in *Data Completeness Met and Performance Not Met*
- *Data Completeness Met and Performance Not Met* letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c¹ equals 10 patients in the Sample Calculation.
- b. If *BMI not documented and no reason is given* equals No, proceed to check *BMI documented outside of normal parameters, no follow-up plan documented, no reason given*.
15. Check *BMI documented outside of normal parameters, no follow-up plan documented, no reason given*:
- a. If *BMI documented outside of normal parameters, no follow-up plan documented, no reason given* equals Yes, include in *Data Completeness Met and Performance Not Met*.
- *Data Completeness Met and Performance Not Met* letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c² equals 10 patients in the Sample Calculation.
- b. If *BMI documented outside of normal parameters, no follow-up plan documented, no reason given* equals No, proceed to check *Data Completeness Not Met*.
16. Check *Data Completeness Not Met*:
- If *Data Completeness Not Met*, Quality Data Code or equivalent not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations:

Data Completeness equals Performance Met (a¹ plus a² plus a³ equals 50 patients) plus Denominator Exception (b¹ plus b² equals 0 patients) plus Performance Not Met (c¹ plus c² equals 20 patients) divided by Eligible Population / Denominator (d equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a¹ plus a² plus a³ equals 50 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b¹ plus b² equals 0 patients). All equals 50 patients divided by 70 patients. All equals 71.43 percent.

* See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Intermediate

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