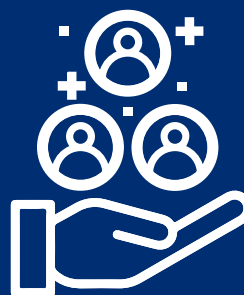


The Social Determinants of Health Handbook:

Understanding SDoH, Health Equity and Its Importance in Your Population Health Strategy

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Introduction

Population health analytics is a continually evolving field, and organizations know that in order to succeed, they need to adopt clinically relevant, actionable tools. Several new policies and the addition of value-based care contracts and strategies have contributed to the need to extend beyond clinical care and medical history when assessing and addressing the patient population. While long known to contribute to overall health, social determinants of health (SDoH) have presented many challenges: how to get to the data, how to use these data points and how to apply these insights to strategy. The Johns Hopkins ACG® System contains new and novel features to help users understand and address SDoH, social needs and health equity within their populations.

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Social Determinants of Health

Social Determinants of Health (SDoH) have long been discussed as critical for understanding the social, geographical, environmental and economic factors which determine a population's overall health and well-being. SDoH enable organizations to craft an intelligent and accurate population health strategy and can be pivotal in unlocking areas for better patient care and cost savings opportunities.



Why are Social Determinants of Health Important for Your Organization?

Where we live, how we're raised, where we go to school and how we eat – these are the social determinants that shape our lives. These factors play a large role in our overall health and well-being. When the environmental factors that surround certain communities are not conducive to a healthy lifestyle, future medical issues can arise as a result. The ACG System considers all these factors and uses Social Need Markers and GeoHealth functionalities to combine individual attributes into meaningful categories that are relevant for population health. **Having this data at hand saves time, money and can elevate the health status of a population.**

Social Need Markers:

Understanding Social Needs and Their Importance for Population Health

Distinguishing Between Social Needs and Social Determinants of Health

Social needs are patient-level measures that capture the most pressing health-related needs of an individual. Whereas social determinants are community-level factors that impact the health of the larger population within a given geographic, social and/or political boundary.

For example, literacy is a social need that affects a person's ability to read. However, lack of education is a SDoH where a large population may only have an elementary education level.

It is critical to assess and understand both: SDoH may negatively impact the health of an individual over the course of their lifetime, while social needs reflect known, pressing needs with immediate health impact.

The addition of Social Need Markers (SNMs) to the ACG System allows users to capture the most pressing health care needs for an individual, measuring social need and barriers to optimal health at the patient level.



Social Need Marker Domains

Social Need Markers consist of five domains that capture some of the most documented social needs of individuals coming in contact with health care systems. Each social need domain is a separate marker to identify the prevalence for individuals within their population.

The ACG System has organized individual-level social needs into the following domains:



Social



Education



Health Care System



Economic



Physical Environment

Putting Social Need Markers to Work

Social needs data can provide a lot of information about how a person lives, but in order to harness that information, it's critical to correctly capture that data. The ACG System collects information sourced through patient portal surveys and Electronic Health Record (EHR) forms, creating documentation to show the needs of a patient population. That information can then be used to develop clinical care delivery models that help address social needs at the lowest level.

Given the increasing pressure to improve overall patient health outcomes, health care organizations and providers are implementing tools to collect social data such as ICD-10 Z-codes, EHR-based screening protocols and patient portal surveys to identify and screen for social needs. These Z-codes more specifically identify the impact social factors have on a population, and help drive a more effective response from community-based organizations. Within EHRs, ICD-10 Z-codes are incredibly helpful for standardizing documentation about a patient's immediate needs.

The ACG System's Social Need Markers capture this data and provide actionable insight that can be used in both clinical and population health management settings. For example, using SNMs, care management teams and social workers can develop interventions and programs to address high-need, high-cost patients.

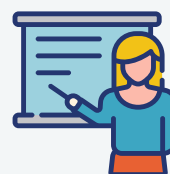
ICD-10 Z-Codes – What are they?

The 10th revision of International Classification of Diseases (ICD-10) includes Z-codes to describe factors that influence medical conditions and health-related outcomes. These Z-codes are used by providers when coding a patient's diagnosis. The ACG System's Social Need Markers work together with Z-codes to consistently identify patients with social need factors affecting health.

The Value for Providers and Clinicians



Empower providers to enhance their patient profiles to **better understand the potential impact on total cost of care.**



Enable care teams to **develop interventions and programs** that address prominent social needs in their patient population.



Allow health care organizations to **assign maximum resources to specific providers and clinics caring for patients who require additional support** to meet their social needs.



Reduce adverse health outcomes for high-risk patients by developing after-care protocols and follow-up processes.

An individual's health is directly impacted by their social needs. Providers and care management teams need this information to best care for a patient population, but there are occasionally gaps in capturing the data: some EHR vendors don't offer the capability to track this information in dedicated fields, while the data that is tracked often isn't suitable for analytics.

For example, a patient with immediate social needs may be more likely to be readmitted after discharge. Preventing readmission requires accurate and comprehensive data on that individual's social needs – now available via the ACG System's Social Need Markers and ICD-10 Z-Codes, users can begin to identify these individual patients and intervene quicker than before.

The Value for Hospitals and Health Systems



Use Social Need Markers to **identify individuals within patient populations with unmet social needs**, and **prioritize interventions** to satisfy those needs.



Identify the most prevalent and addressable social needs for a patient population, and subsequently **track the effectiveness of intervention programs** developed to combat those deficits.



Develop partnerships with community organizations and other public health resources to meet individuals' social needs within the population more effectively.

A complete population health strategy needs qualified insight into the overall health and well-being of a community. Social Need Markers, paired alongside other ACG System features like ACG GeoHealth, provide a comprehensive population and patient-level view of social risks.

ACG GeoHealth:

Using Social Determinants of Health to Drive a Successful Population Health Strategy

Working alongside the ACG System's Social Need Markers, ACG GeoHealth is a unique component that enhances your organization's existing data and gives you results that cannot be obtained through other methods.

What benefits does ACG GeoHealth provide?

ACG GeoHealth looks at where a population lives and helps users determine the risks and health challenges the population faces due to that geography. Meaning, the various metrics provided by GeoHealth are entirely dependent on – and generated by – a patient's address, without needing to rely on supplementary SDoH data. By building on the ACG System's whole-person approach to health needs and predictive measures, ACG GeoHealth provides users with cleansed, curated data, providing in-system capabilities to:



Identify disparities in health status for populations based on the area in which they live



Measure health disparities, outcomes and cost based on geographic variables



Develop needs-based plans to provide essential care in a geographically targeted way



Support resource allocation, case management and community health worker activities

Understand disease prevalence, quality of care and utilization trends by geography

Utilizing these findings to focus on a population's health risks will ultimately create opportunities to give all people in that area a chance at a healthier life.

What measures are available within ACG GeoHealth?

ACG GeoHealth pulls together over 20 external data sources based on location to generate 17 unique variables that measure health risks within a population. These measurements include poverty levels, vacant housing, the likelihood of having health insurance and single heads of household, among others. When pulled together with the rest of the data available through the ACG System, organizations can create a full view of patient-level risks.

This information is critical when applying funding decisions and tactical support planning to a community in need.

ACG GeoHealth Measurements



Health System Access

- % with Employer-Based Insurance
- % of Population with Medicare
- % of Population with Medicaid



Social

- Population Density
- Area Deprivation Index
- % Spouse Present
- % Living Alone



Physical Environment

- % Vacant Housing
- % Owner-Occupied Housing Units
- # of Vehicles per Worker (16 years +)



Education

- % 25 Years + with Bachelor's Degree
- % 25 Years + with No High School Diploma







Economic

- % SNAP
- Median Household Income
- % of Population with Income Below Poverty Line
- % 16 Years + With Employment
- Median Home Value

How ACG GeoHealth Improves Your Strategy

A plan to improve population health in a specific geographic area is only as good as the data used to create it. We understand that ACG System users require nuanced, focused data outputs to help prioritize social needs within their populations, drive strategic investment decisions and plan tactical support for their strategy.

Using ACG GeoHealth's measures, you will be able to:

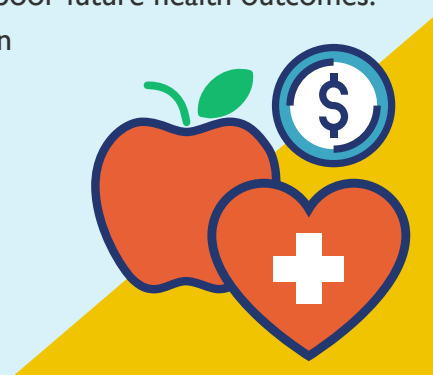
-  Understand the impact of SDoH on your population's health status, disease frequency and outcomes
-  Formulate a strategy to address these factors and drive action
-  Gain a deep understanding of SDoH with minimal adjustment to your current ACG processing
-  Benefit from SDoH and population health expertise from the experts at Johns Hopkins

Further, ACG GeoHealth allows users to not only assess SDoH by geography and see unique insights into the overall and sub-populations, but also to create interventions on a geographic basis. For example, partnering with a rideshare service to provide free rides to appointments in an area where a high number of patients report health care access issues could lead to incredible savings through decreased ED use and increased performance on quality metrics. Additionally, ACG System users can evaluate areas of need and partner with community organizations designed to address challenges in a specific area.

ACG GeoHealth delivers targeted insights so that you can develop the successful population health strategy you need.

ACG GeoHealth Use Case

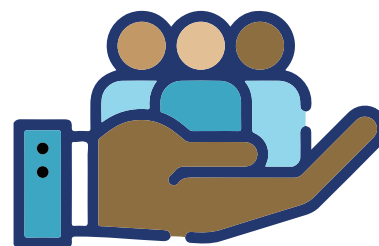
A large health organization wanted to re-focus their philanthropic efforts on specific SDoH needs. They chose food insecurity and health inequity, which are predictors of poor future health outcomes. An analysis using ACG GeoHealth markers allowed the organization to identify geographical areas in which food insecurity is highest in their area. Then, they were able to more precisely allocate funding to local non-profits specializing in food insecurity and health inequity measures (annual well visits, vaccinations, etc.). Also, the organization was able to work with local physician groups and health systems to better address geographical needs and organize collaborative efforts such as pop-up clinics.



ACG GeoHealth is a strategic feature of the ACG System, for users who want to understand their entire population, versus the more traditional view of just clinical data and utilization trends. Fully meeting a community's social needs requires teamwork between key stakeholders. The addition of ACG GeoHealth to the existing suite of ACG System tools is a significant advancement to help users achieve better health outcomes, reduce disparities and better serve their populations.

Health Equity

How to Measure Health Disparities and Create an Equitable Health Strategy with the ACG System



The Landscape: Health Equity Today

A growing body of research has pointed to the rising importance of the connections between a patient's race and their future health outcomes.

- Racial and ethnic minority groups have higher rates of illness and death related to diabetes, hypertension, obesity, asthma and heart disease when compared to their White counterparts.¹
- Hispanic people had 33% more cases of COVID-19 than expected, and when adjusted for age, Hispanic, Black, and American Indian and Alaska Native (AIAN) people are twice as likely to die from COVID-19 as their White counterparts.²
- Black people are 8 times as likely as White people to have new HIV cases and 7 times more likely to die from HIV.³
- Black women are 3 times more likely to die during and immediately following pregnancy than White women.⁴

When creating a health equity strategy, it's crucial to effectively assess your population in order to understand their needs and the health disparities that exist today. Not only does this inform future strategy, but can directly feed into current interventions, deployment of resources and identification of improvements. During the last few years, we have seen a rise in the number of health care metrics focused solely on health equity, likely due to the expansion of value-based care arrangements and mandated reporting metrics tied to health disparities. Health equity measures have been introduced within the ACO REACH program, CMS STARS, MIPS and HEDIS, among others. CMS has also proposed a Health Equity Index in Medicare Advantage contracts.

Exploring Racial and Geographical Health Disparities

In order for health care providers and organizations to understand the impact of these disparities, they have to know where they exist. Using the ACG System's SNM and GeoHealth functionality allows users to assess SDoH at the patient and population levels, specific to a geographical area. They also allow users to explore an individual's social needs at both the aggregate and individual levels. Disease prevalence, access to care, medication adherence, care coordination and other health indicators can then be reviewed to see how they are impacted by race and ethnicity.

Why is it important to track this data?

Understanding and reducing disparities in health care is a growing focus among government and private payers. The ability to gather more data about race and ethnicity allows providers and health care organizations to treat patients more effectively. Not only will this potentially reduce health care costs, but it can also increase overall population wellness and work toward the overarching goal of health equity.



Obtaining Race and Ethnicity Data

As part of health plan enrollment, patients complete an intake form which usually contains questions related to race and ethnicity. These data are stored in files that track health plan enrollment and are a common source of race and ethnicity data. Health care providers are required to capture, or at minimum ask, the race and ethnicity of patients in the EHR and may also have access to payer enrollment data. Self-insured employers may use enrollment data and supplement that information with human resources records.

Ensuring Completeness of Race and Ethnicity Data

Government agencies, public health departments, health plans and health care delivery organizations all collect race and ethnicity data. Since 2013, providers using EHRs have collected standardized race and ethnicity data under CMS Meaningful Use requirements, yet completeness rates vary and there are concerns regarding whether patients are actually self-identifying.⁵

Due to issues with race and ethnicity data completeness, other variables have been recommended, or even required, to be used to segment populations into subgroups for comparison of outcomes and performance including dual-eligibility, disability status and socioeconomic status.

Applying Learnings for Future Improvements

The ACG System enables users to fully utilize their health care data, including claims, EHR, pharmacy, lab and more, to analyze disparities in the populations they serve. The SNMs allow users to analyze the social needs among individuals and populations. Additionally, ACG GeoHealth can also supplement missing data points, by providing a different view of SDoH needs, based on numerous data sources within the ACG System, that can supplement and enrich users' own data.

A valuable health equity strategy requires nuanced, focused data outputs to help prioritize a population's social needs. When users combine these findings into a population health strategy focused on promoting equity and reducing disparities, all people can then achieve their highest possible level of health.

How does the ACG System do this?



The ACG System provides users with robust population health data analyses to enhance understanding of health determinants and improve health outcomes.



The ACG System includes advanced functionality which enables users to measure the significant impact of health disparities on their population.



The ACG System uses data that health care organizations already have and refines it to uncover the best solutions to combat disparities in equality and equity.



ACG GeoHealth uses high quality, geo-targeted measurements to help users develop strategies to create equitable health outcomes and deliver cost-effective care.



Each of these features work together to help ACG System users develop a successful population health strategy based on insightful, actionable and meaningful data.

ABOUT THE ACG SYSTEM

The Johns Hopkins ACG System is the world's leading population health analytics software. The System continues to evolve, providing ever-more refined tools used in the U.S. and across the globe for over 30 years, from commercial health plans and governments to health systems and large employers. The beauty of the ACG System is its ability to combine data from an array of sources to reveal powerful insights that go beyond just medical records.

By identifying risk and tracking patients over time, the ACG System can help you plan ahead and reduce health care costs – especially valuable to risk-bearing health systems and provider organizations. Most importantly, the ACG System allows you to be proactive, rather than reactive, when it comes to your population's unique health care needs. The System helps you combine a population-level perspective with patient-level behaviors and conditions. And because the System is incredibly flexible and responsive to new information, you can rest assured that no matter what comes next, the ACG System will continuously adapt to your health care management needs.



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LEARN MORE

To learn more about how the ACG System can support your organization in creating a successful population health strategy, visit www.hopkinsacg.org or email acginfo@jh.edu.

If you are an ACG customer, contact your account manager.

To stay up-to-date on the latest developments and news, and to learn tips for making the most of the ACG System's suite of analytics tools, [subscribe to our blog](#).

