



# 2021 Cambia Grove Innovator Fellowship Program



*Executive Summary: Gravity FHIR Accelerator Project  
and the Value Metrics Framework*  
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## **About the Accelerator**

The Gravity Project was launched in 2019 by the Social Interventions Research and Evaluation Network with funding from The Robert Wood Johnson Foundation. It became one of the six FHIR Accelerator projects in August 2019. This work was born out of recognition that addressing social risk and protective factors in the context of health care requires utilization of structured data on the social determinants of health (SDOH), such as food insecurity, housing, transportation, stress, social connection, and other factors. It is a national collaboration involving health systems, standards developers, coding and terminology experts, researchers, advocates and other stakeholders to develop and test consensus-based, structured data standards to support documentation and exchange of SDOH data. Among its objectives, the Gravity Project designed three use cases to guide the development of standards to support SDOH data capture and exchange:

- Document SDOH Data in Conjunction with the Patient Encounter
- Document and Track SDOH Related Interventions to Completion
- Gather and Aggregate SDOH Data for Uses Beyond the Point of Care

The Gravity Project is comprised of a sizable and committed community, and its FHIR standards are maturing rapidly. In September 2021, the Gravity Project released an SDOH Clinical Care FHIR Implementation Guide and Reference Implementation. The Gravity Project was influential in the adoption of SDOH data as part of the US Core Data Interoperability (USCDI) Standards.

## **Methods**

To understand the overarching value of The Gravity Project and these three use cases, and to inform the Value Metrics Framework, four interviews were undertaken with a total of five individuals, purposely selected to provide perspectives related to the technical, clinical, and operational aspects the Gravity Project use cases. Interviewees were a frontline clinician, leaders from a health information exchange, a leader representing a community information exchange, and two directors from the American Medical Association with expertise in informatics. Interviews were conducted by webinar or phone.

While specific questions varied slightly according to stakeholder, the interviews typically addressed the following questions:

1. Why is the organization engaged in the Gravity Project; what is their interest in implementing SDOH data standards?
2. How will the use cases and Gravity's end products contribute to improvements and what types of improvements are anticipated (e.g., reduced costs, better patient experience, seamless workflow)?
3. In what ways could the outputs of the Gravity Project work even better for the organization, especially when thinking about scalability and routine use at the point of care?
4. What challenges to current implementation have impeded ability to derive value (e.g., workflow, data availability/latency, information reliability, change management)?
5. What would be helpful in order to support wider implementation of SDOH data standards?
6. What would you say to a health care leader or other peer to help them decide whether implementing SDOH data standards will create value for their organization?

***Dimension of the  
Value Metrics Framework***

*Abrasion  
Accuracy  
Clinical  
Efficiency  
Financial  
Foundational  
Market  
Security*

Insights from interviewees were cross-walked with the seven domains of the **Value Metrics Framework** (Box). This Framework is being developed to support implementation and adoption of HL7 FHIR standards by identifying points of value, and how the standards deliver on the particular "type" of value. For example, "abrasion" encapsulates the extent to which the implementation of standards could ease challenging aspects in health care encounters. In this case, the collection of potentially sensitive information about an individual's circumstances could lead to a cascade of interfaces with community-based organizations (CBOs).

And CBOs themselves may not be optimally equipped to receive and act on data related to the spectrum of social needs. So, to the extent that standardized data can support consistent and complete collection, exchange, and use of SDOH data, abrasion is reduced. The term "foundational" in this context refers to essential characteristics that the standards possess. For example, clinical end-users of the FHIR standards for SDOH might reasonably expect that the standards can be implemented regardless of the electronic health record (EHR) platform used by the clinical practice.

## Common Themes

All stakeholders offered unique perspectives based on their setting and position. Nevertheless, themes emerged. Not unexpectedly, a facet of data interoperability deemed essential by stakeholders is the ability to standardize data capture at the point of care. Given the complexity of screening for sensitive non-medical needs like housing, hunger, or personal safety, the extent to which these data points can be ingested, transmitted, and applied without additional normalization or harmonization creates tremendous value for patients, clinical providers, and organizations that address social support needs. That said, there are related workflow considerations: can screening tools be seamlessly integrated into EHRs? For clinical personnel transmitting data, is there a consistent process for data exchange, or does the process vary for each given CBO? The CBOs themselves have different infrastructures with variable ability to receive and utilize incoming data. In short, a key theme is that standardized data is a vitally important part of improving the use of SDOH, but standardization is only one part of the solution. As one interviewee observed,

*“Community-Based Organizations will have to create new infrastructures, and no one has resources for it. FHIR is a language that no one speaks at the community-level yet, and they need to remap their data to these new standards.”*

All stakeholders offered unique perspectives based on their setting and position. Nevertheless, themes emerged. Given the dynamic nature of patients’ social and clinical needs, a related consideration that arose in the interviews was actionability. Clinical teams are intrinsically motivated to act on clinical information about a patient—for example, an elevated hemoglobin A1C or overdue breast cancer screening typically triggers appropriate clinical actions (e.g., a prescription or mammography referral). Similarly, when screening for food insecurity or lack of transportation, the care team is apt to want timely and actionable interventions or referrals at (and beyond) the point of care. Based on the dimensions of the Value Metrics Framework, the ability to have actionable information would be considered foundational (and would also aid efficiency and accuracy). The Gravity Project use cases are deeply attuned to this critical aspect. Nonetheless, the lack of aligned incentives for CBOs remains a barrier. Most organizations do not have the available personnel or technical resources to upgrade their community resource directories or other service offerings. Such services function as point-of-care interventions in the way a statin prescription or mammography referral might for the aforementioned clinical examples.

## **Other Considerations**

All stakeholders offered unique perspectives based on their setting and position. Nevertheless,

Interviewees raised a number of additional points of interest to stakeholders related to adoption of SDOH data standards at scale. Two warrant elucidation here. First, patient-matching in the clinical realm is already acknowledged as a thorny challenge. If John Smith seeks care at a community clinic, and then shows up at an emergency room or goes to fill a prescription at a local pharmacy, ensuring that this is the “correct” John Smith across time and place is of vital importance. This is equally imperative for interventions related to unmet social needs. For instance, matching John Smith—who may or may not have a stable housing situation—and ensuring correct interfaces with multiple different CBOs, illustrates why thoughtful approaches to interoperability must go far beyond technical facets.

Second, neither payers nor patients/consumers have been deeply engaged in the discussion of collecting and utilizing SDOH. Conversations around the edges of how to reimburse clinicians for managing non-medical needs are slowly coming to the forefront, and interviewees noted that CMS has an important “first mover” role to play with respect to reimbursement. But at present, payment models and fee structures are not keeping pace with rapid data-driven developments. A related thread is the extent to which clinicians should be on point for addresses non-clinical needs, a subject of intense debate in the field, particularly given the context of physician workforce demands and rising burnout. Lastly, many patients are generally not aware of the importance of having clinical teams that can identify and help address important non-clinical needs, underscoring the importance of broader national conversations about all of the factors that “interoperate” to impact health.

## **Conclusions**

While population health management and interoperability are often considered separately, their interdependence is a paramount consideration for the health care ecosystem going forward. The importance of seamlessly providing patients with both clinical and community resources to manage their health, and resourcing these efforts accordingly, has taken on even greater urgency in the wake of the COVID-19 pandemic. As the Gravity Project continues to mature in terms of products and prominence, bringing more stakeholders to the table and addressing the business case for interoperable SDOH data will be a key to continued success.