AGGREGATED PRECISION INVESTMENT: STRENGTHS, WEAKNESSES, AND POTENTIAL PATHS FORWARD

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Rebecca Nielsen | Brooke Zollinger | Sarah Johnson

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INTRODUCTION/BACKGROUND

Interest in social determinants of health (SDOH) interventions continues to grow; however, challenges to funding SDOH interventions remain because of the inherent complexity of SDOH and the scarcity of interventions that demonstrate short-term return on investment (ROI). As Nichols and Taylor note in *Health Affairs*,[1] the benefits of SDOH interventions accrue to a range of stakeholders; so, though the interventions create significant financial value, they do not necessarily drive enough value to a single sponsor to justify that organization bearing the entire expense. Collaborative investment models seek to deliver a short-term ROI to sponsors by asking them to pay only a fraction of the total intervention expense—a fraction that correlates with the amount of benefit organization can expect to derive when the intervention is executed. In theory, this brings self-interested investors back to the table and addresses the current market failure that leaves many potent SDOH interventions unfunded.

Rebecca Nielsen, David Muhlestein, and Michael O. Leavitt advanced one such model in the June 14, 2021, *Health Affairs* Forefront article "Social Determinants of Health: Aggregated Precision Investment."[2] In this case, any stakeholders that will derive a financial benefit from an intervention could invest in an SDOH intervention.

In this article we explore the feasibility of operationalizing the aggregated precision investment (API) model based on subject matter expert interviews, conversations with potential aggregators, and relevant secondary research. We will share the perceived strengths and weaknesses of the API model that surfaced in our research, examine the capabilities of the aggregator, and outline potential paths for operationalizing the model.

API MODEL STRENGTHS

Overall, interviewees regarded the API model as a promising approach to enhancing investment in SDOH and cited two strengths discussed below.

Providing an Estimated ROI Upfront

As described in the *Health Affairs* article on the API model, initial SDOH interventions will be "precision investments" targeted at individuals with specific, known SDOH needs surfaced by SDOH data companies – removing the need to rely on community-level assessments. The aggregator crosswalks individuals who need the intervention with a potential investor's membership data to estimate that investor's likely ROI and the correlated price. Providing an estimated ROI and pricing upfront to potential investors was perceived as a key strength of the model, as many investors are likely accustomed to an approach that involves "buying" something rather than bidding or offering a price based on the amount they are willing to pay.

Eliminating Need to Convene

Another perceived advantage of the API model was eliminating the need for stakeholders in a market to formally convene or develop an alliance-type approach to drive SDOH investments. While removing the need to convene may not reduce the time required to execute interventions (because of the need in the API model to engage sufficient investment before advancing the intervention), it is a beneficial construct in markets where stakeholders are unwilling or unable to convene, or if the prospect of convening deters an otherwise willing entity from investing.

AGGREGATED PRECISION INVESTMENT MODEL WEAKNESSES

Despite these perceived strengths, interviewees identified potential model weaknesses in the following areas.

Obtaining Needed Stakeholder Data

Calculating precision investment pricing would require securing both individual-level SDOH data and a given investor's roster or eligibility file. Calculating pricing further requires the ability to map the individuals who qualify for the intervention to the roster or eligibility file in a highly efficient fashion. Both requirements represent hurdles to operationalizing the model. Though robust individual-level SDOH data are available, the data-use agreements, the ability to map individuals across data sets, and the low likelihood of some investors having accurate membership or constituent rosters mitigates the potential success of operationalizing the model. If, for example, payers must provide an eligibility file to the aggregator to secure a precision-pricing proposal, that administrative step alone may suppress a self-interested investor's appetite to engage.

Motivating Investors to Participate

Interviewees perceived that organizations find discussions around SDOH investment modalities increasingly fatiguing, as the evidence for near-term ROI from these interventions is sparse. Potential investors may be wary of engaging in another investment construct.

Financing Upfront Costs

Interviewees noted the upfront costs that may be required to establish an aggregator and operationalize the API model. They indicated that entities that might otherwise consider performing the aggregator role could be dissuaded because of the potential magnitude of these investments.

Identifying SDOH Interventions with Sufficient ROI Potential

Finding interventions with ROI potential (in the context of a collaborative investment) and measurable outcomes is critical to the success of the API model but interventions that fit these criteria are difficult to find in the existing literature.

AGGREGATOR CAPABILITIES

Table 1 shows the critical capabilities an aggregator will likely need to successfully develop, implement, and manage an API model. These capabilities can be grouped according to six sequential activities entailed in operationalizing the model:

1. Identify the SDOH intervention, geographic market, and individuals who fit the intervention criteria
2. Identify stakeholders
3. Estimate stakeholder expected return and price, and pitch to stakeholders
4. Calculate the expected return and precision price for each stakeholder (upon securing eligibility data inputs)
5. Contract with each stakeholder
6. Implement and evaluate the SDOH intervention

Critical Capabilities

An aggregator could perform all the tasks in Table 1, but they may also choose to enlist other organizations to support an API model (e.g., in executing the SDOH intervention or sourcing individual-level SDOH data).

Potential Aggregator Entities

To identify potential entities that might serve well as an aggregator, we explored several entity types to determine whether they have these critical capabilities in place. Community-based foundations, state government entities (such as Medicaid agencies), social risk prediction platforms, and research entities (including universities) rose to the top of entities that have some, but likely not all, the critical capabilities. However, further exploration of specific organizations within these entity types is necessary as different organizations likely have varying levels of existing capabilities.

Table 1. Comparison of Aggregator Capabilities

Stage	Critical Capabilities
Identify SDOH intervention, market, and individuals who fit intervention criteria	Ability to identify SDOH interventions with potential for short-term ROI
	Ability to source individual-level SDOH data
	Ability to analyze the individual-level SDOH data to identify individuals in a market who meet the criteria for the intervention
Identify stakeholders	Ability to identify key stakeholders (potential investors) who would benefit from specific SDOH intervention
	Ability to identify relevant decision makers within the stakeholder entities
	Ability to identify an organization to implement the SDOH intervention
Estimate expected return and price; pitch model to stakeholders	Ability to estimate costs and mark-up for executing the intervention
	Ability to estimate generalized return and pricing for each stakeholder
	Ability to access relevant decision makers and articulate the opportunity
	Ability to enter into data-sharing agreements to secure eligibility or membership data
Calculate expected return and price for each stakeholder	Ability to ingest eligibility or membership data (and subsequently claims or other data) from potential investors
	Ability to map individuals on the eligibility files to individuals identified for the SDOH intervention
	Ability to create a contingent contract with an organization to implement the SDOH intervention
	Ability to calculate expected return and precision pricing for each potential investor
	Ability to calculate thresholds at which collective investor participation justifies the execution of an intervention
Contract with each stakeholder	Ability to create a contingent contract with potential investors
	Ability to secure funds from the investors when thresholds are achieved
	Ability to disperse funding to an organization to implement the SDOH intervention
Implement and evaluate intervention	Ability to implement or instigate the SDOH intervention
	Ability to monitor the SDOH intervention
	Ability to access stakeholder data where feasible (e.g., claims data, utilization data) for purposes of evaluation
	Ability to report on proxies for ROI or actual ROI

POTENTIAL PATHS FOR BRINGING CRITICAL FUNCTIONS TOGETHER

Because of the challenges related to building, de novo, the capabilities required to discharge the API model, we identified two paths forward that leverage the capabilities of existing entities:

Social Risk Prediction and Digital Tools Company as Aggregator

One path is for an entity that houses many of the capabilities to evaluate the model with support from a mission-driven entity that could provide seed financing and oversight. At least one social risk prediction and digital tools company during our initial review had most of the capabilities, including individual-level SDOH data to identify candidates for evidence-based interventions, the ability to ingest relevant payer data (and other stakeholder data), a robust sales and contracting team, a network of community-based organizations that potentially could perform social needs interventions, and the analytics capability to support precision pricing calculations and quantify stakeholder-specific benefits.

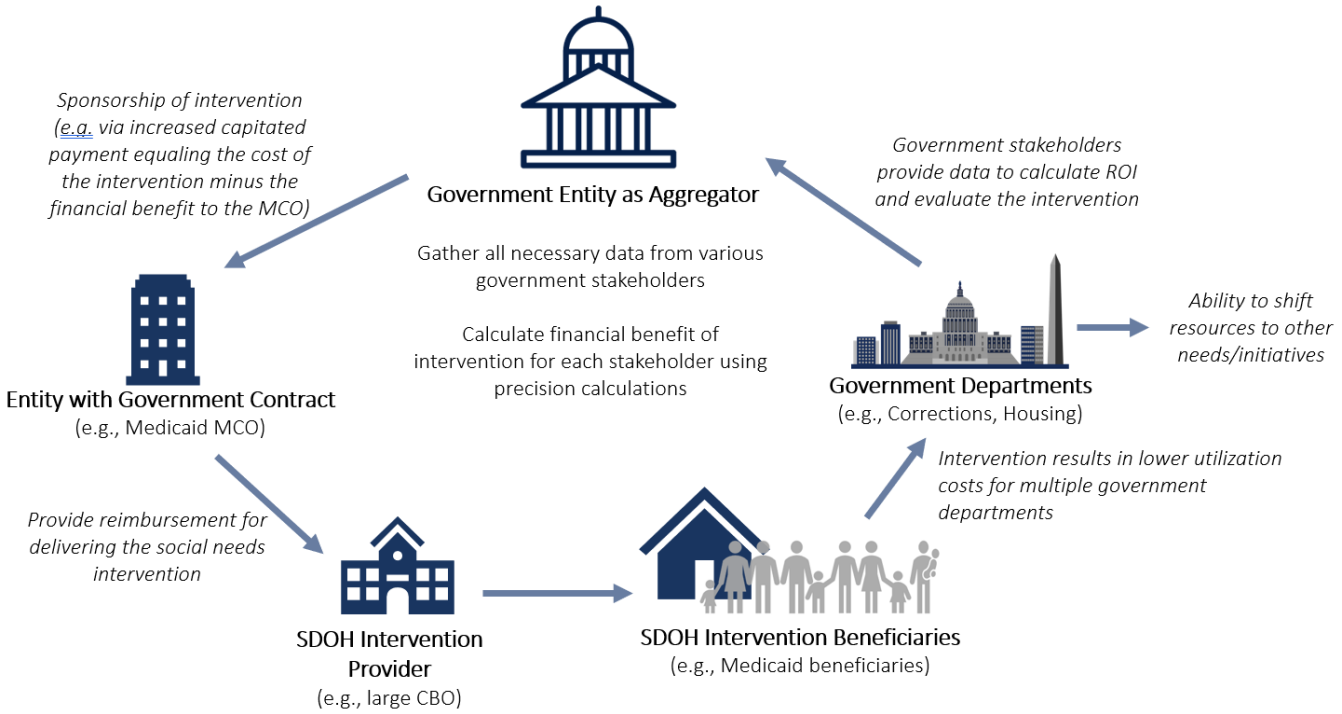
Unleashing additional investment from otherwise reticent stakeholders would be in the financial interest of the social risk prediction company. Seed funding and oversight from a mission-driven entity may help such a candidate overcome the activation barrier to trying a complex but potentially powerful collaborative investment construct. The oversight provided by the mission-driven entity in the context of a pilot could ensure limitations on the mark-up incorporated in the pricing. By using philanthropic seed financing, the upfront costs of testing the model would not need to be baked into the pricing, increasing the likelihood that the model could gain traction among investors.

Government Entity as Aggregator

A second path forward would be to engage a state or local government entity as the aggregator.[1] In this permutation, the aggregator would not only calculate the expected financial value of a given intervention for others, but also would be a major financial beneficiary. The theoretical elegance of the government serving as the aggregator lies in the fact that the government has existing contractual relationships with many of the financial beneficiaries of social interventions. As stated, the government is a major financial beneficiary of those interventions. Finally, the government has access to data that would enable it to calculate the return on the interventions to various departments. These returns may be manifest in reduced utilization of government-sponsored services based on projections.

As the aggregator, the government could calculate the return for a given intervention that would accrue to various departments, including corrections, medical assistance (i.e., Medicaid), and housing. As the benefits accrue—again, manifest in reduced use of government programs—the government will have the opportunity to shift resources that would otherwise fund that utilization. The government could sponsor the interventions by either making the interventions a reimbursable expense or by providing direct payment to entities initiating the interventions (see example of the former approach in Figure 1). In the case of Medicaid managed care, specific interventions could be reimbursed by the Medicaid managed care organizations (MCOs), and the government entity (e.g., the state) could adjust the capitated payment for the MCOs upwards by an amount equal to the reimbursement minus the theoretical benefit that will accrue to the plan resulting from reduced use of medical services.

Figure 1. Example of the Government Serving as the Aggregator



In this example the construct shifts from a sales-oriented, voluntary model that appeals to the self-interests of potential investors, to a top-down model executed by a key beneficiary (who is also a parent entity to additional beneficiaries, including governmental departments).

A dose of reality reminds us that mobilizing a state government to assume this role (even though the model aligns with the state's capabilities and financial interests) could be challenging. For purposes of executing a pilot, a county government could be a strong partner. County governments often have strong working relationships with community foundations that could provide mentorship and oversight and have parallel departments that could benefit from local social needs interventions (e.g., corrections, county medical facilities, housing).

MOVING FORWARD

Although the API model has some weaknesses, there is an appetite for additional mechanisms that address the paucity of social needs investment. These represent possible paths for operationalizing the model in the field, not only to the financial advantage of the entities that participate, but also for the well-being of the individuals supported through the sponsored interventions.

ABOUT LEAVITT PARTNERS

Leavitt Partners, an HMA company, is a leading consulting firm at the forefront of navigating change in healthcare. We provide a holistic view of economic, market, delivery system, public policy, and political influences impacting healthcare, helping clients successfully navigate from today's uncertainty to tomorrow's prosperity. The firm provides clients strategic growth advisement, federal insights and advocacy as well as member-based alliances, striving to make health more accessible, effective, and sustainable.

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[1] Nichols LM, Taylor LA. Social Determinants as Public Goods: A New Approach to Financing Key Investments in Healthy Communities. *Health Affairs*. Published August 2018. Available at: https://www.healthaffairs.org/doi/10.1377/hlthaff.2018.0039. Accessed March 20, 2023.

[2] Nielsen R, Muhlestein D, Leavitt MO. Social Determinants of Health: Aggregated Precision Investment. *Health Affairs*. Published June 14, 2021. Available At: https://www.healthaffairs.org/do/10.1377/forefront.20210610.928520. Accessed March 20, 2023.