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The Commonwealth Fund

Investing in social services as a core strategy for healthcare organizations: Developing the business case

A practical guide to support health plan and provider investments in social services

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A call for action: Incorporating social services into healthcare business models

The impact of social determinants of health (SDOH) as drivers of medical utilization, cost, and health outcomes is both widely researched and acknowledged. This growing body of evidence attributes as much as 40 percent of health outcomes to SDOH such as housing, education, poverty, and nutrition and that as much as a third of the deaths in the United States can be accounted for by social factors.[1,2] The influence of SDOH is particularly pronounced in vulnerable high-need, high-cost (HNHC) populations with single to multiple functional limitations.

Despite the widespread acknowledgement of the importance of addressing SDOH to improve outcomes and lower medical costs, observed investments tend to be modest in scale and temporary, often funded through time-limited grants or launched as pilots without a long-term strategy. Few healthcare organizations have incorporated the services that target SDOH directly into their ongoing business operations without any requirement of ongoing outside financial support.

In response to these observations and as part of their ongoing mission to support the promotion of accessible, high-value, and affordable care for HNHC populations, The Commonwealth Fund worked with KPMG LLP (KPMG) to explore the current landscape of investments targeting SDOH as well as approaches to accelerate the uptake of SDOH investments into healthcare business operations. In the period between August 2016 and September 2017, KPMG interviewed 33 healthcare payer and provider executives from across the United States, performed extensive literature review, and convened both an Advisory Council and a Social Services Forum to obtain insights and feedback on the formulated hypotheses and suggested approaches.

The intended audience for this guidebook is all payer and provider organizations that currently bear some form of risk for managing total costs of care for a distinct (sub) population. While we focus mainly on organizations that are responsible for managing HNHC populations, the steps and practical approaches laid out in this guide may be applied by any organization (payer or provider) that either currently bears risk or is in the process of moving to risk-based remuneration models for a covered population. While employers are not the main intended audience of this guide, the principles laid out in this text can apply to employers just as they do to payers given that employers set the terms (and pay the costs) of the care contracts for their employees, whose health is affected by social determinants.

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Establishing a common definition of "social service investment"

Many of the briefs and thought pieces that discuss social service investment strategies organize the investments by the type of service. Throughout the process of literature review and field research, it was evident that the actual approach taken to the investment also greatly affects the business case set up for the social service. During the interview process, three main archetypes of investment approaches were observed:

Coordination

The investment is made to set up or improve the coordination, collaboration, and connectivity with a third party (social service agency, nonprofit group, CBO, etc.) that already provides the desired social service.

Stimulation

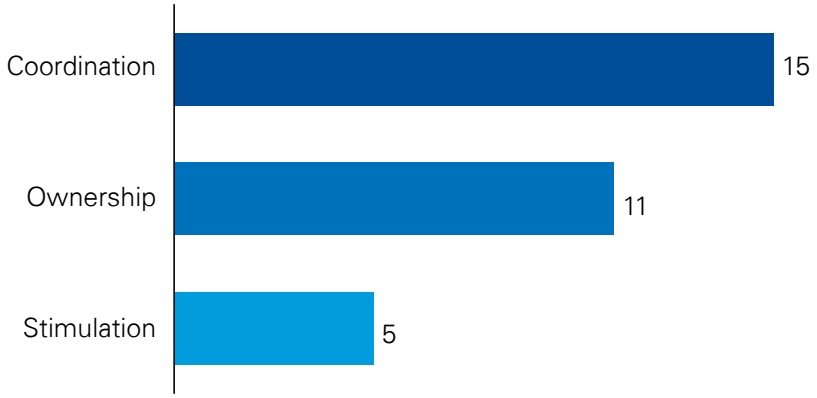
The investment is utilized to temporarily fund or provide a grant to a third party that provides a social service with the purpose of helping the third party close a gap in their business approach (organizational, business model, data, etc.).

Ownership

The investment pays directly for the provision of a social service, either by reimbursing a third party out of pocket for the service, or by incorporating the service into your own organization.

In practice, investment strategies may encompass all, or any combination, of the above-mentioned three archetypes. An example of a hybrid approach can be found in Health Plan San Mateo's Housing Supports Pilot (). During the field research, the most commonly found model of investment was the coordination approach, followed by the ownership and stimulation models respectively (see Figure 1).

Figure 1: Bar chart showing the results from field interviews structured by reported investment model type—coordination, ownership, or stimulation. Many of the organizations reported utilizing more than one investment model type across their suite of social service interventions. Respondents = 15. Total number of investment model types observed = 31.

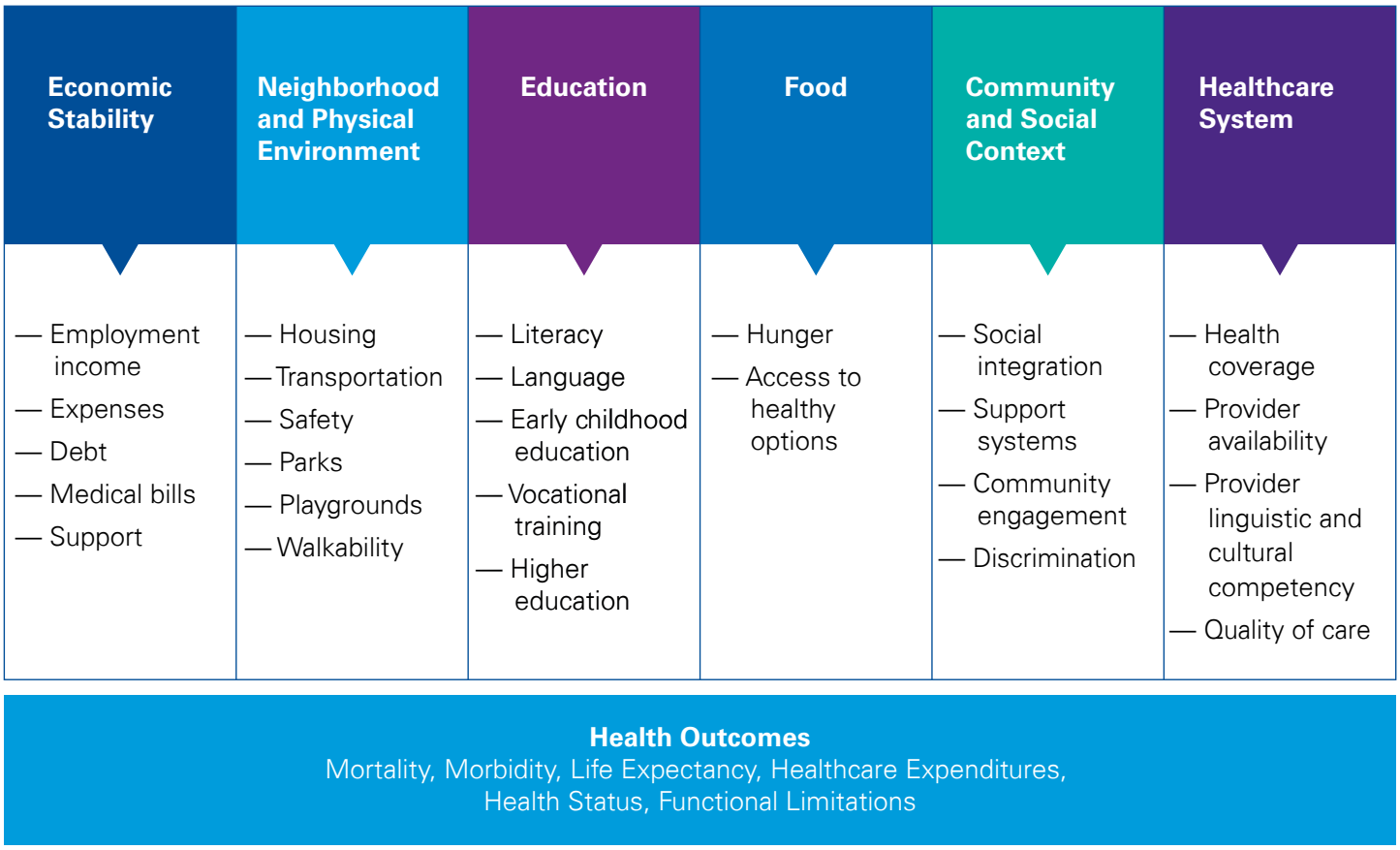


Source: Interviews with executives from participating organizations (see Appendix) between August 2016 and September 2017.

The concept of investment explored in this paper excludes all financing that is already included in a rate, benefit package or funded through another financial mechanism that does not require any novel investment by the healthcare payer or provider. The purpose of narrowing down the definition was to help ensure focus on "true" investments for which organizations would have to bear risk without any safety net or guaranteed payback mechanism, thereby requiring an actual business-case based approach.

As for social determinants, there are many models that classify and categorize SDOH. Throughout this paper, we reference the Heiman and Artiga model (see Figure 2) in which SDOH are defined across six discrete categories. The Heiman and Artiga models align closely with others, such as the HealthyPeople.gov or the Robert Wood Johnson Foundation, with minor variations.[3,4] Occasionally, interventions may fall into more than one SDOH category, such as the LegalHealth partnerships in New York City. The legal support may be classified as both an economic support and a physical environment support since they typically help clear up tenant-landlord disputes regarding the physical living conditions ( ).

Figure 2: Categories of Social Determinants of Health as depicted in the Heiman and Artiga model from the Kaiser Family Foundation (KFF). The Heiman and Artiga model allocates social determinants of health into six different categories.



Source: H.J. Heiman and S. Artiga, "Beyond Healthcare: The Role of Social Determinants in Promoting Health and Health Equity." Kaiser Family Foundation: Washington, DC, 2015.

Common barriers to social service investments

During the structured interview process, ongoing discussions with Advisory Council members, and the Social Services Forum, industry experts identified five perceived barriers to consistent uptake of social service investments as an ongoing business practice.[5] Where applicable, potential solutions raised by participants have been included.

Challenges in coordination, communication, and data sharing between medical and social organizations

Many healthcare organizations do not possess current information on the available social services in their community or consider the level of effort required to coordinate these services unfeasible given their limited resources and staff. Second, differences in perspectives and organizational culture can create communication challenges and even distrust between the medical and social organizations. Third, data interoperability to support the exchange of relevant, patient-based information between medical and social providers is not common practice.

There are examples in the field of healthcare organizations taking regular stock of the local social services resources, assessing their financial viability and setting up investment strategies to support operational improvements and data exchange projects with the social service provider. One example is WellCare's CommUnity Health Investment Program (), which dedicates investments to supporting the build of data-sharing infrastructure and data exchange with social service partners rather than a more "traditional" approach of paying for the provision of services. Another example is New York's OneCity Health Community Based Organization (CBO) evaluation model ().

A lack of legal and regulatory clarity on degrees of freedom on social service investments

It is not always clear to health organizations which legal and regulatory parameters apply to social service investments for specific populations. Throughout the field research, payers and provider alike reported feeling confined by disparate legal and regulatory restrictions on providing social services to targeted various populations. Many healthcare organizations recognize that flexibility exists in certain states with "in-lieu" services but are unsure how to scale and replicate social services investments sustainably and without exploiting "gray areas."

Healthcare organizations may consider alternate methods to support social service investment with downstream health providers and community-based partners who are not confined by the same legal and regulatory parameters. For example, Geisinger, a Pennsylvania-based hospital system, acts as a "convener" of social service partners to support the provision of housing services to patients who need it, rather than making investments in housing directly themselves. Another example is CareMore, which has managed to work through HIPAA-related regulatory hurdles in its partnership with the rideshare service Lyft (). Lastly, many healthcare organizations will consistently engage in dialogue with local policy makers to address confusions in regulation and clarify gray areas.

Lack of up-front approach to prove the business benefit to the own organization

While many payers and providers have embraced the theme of addressing SDOH, very few are actually creating business cases that prove the effect of an investment to their own operating costs and revenue models. More often than not, the business cases studied in this research tended to focus on the broader societal returns of the investment, rather than the financial viability for the investing organizations. Additionally, in approximately half of the respondents to the interviews, there was a lack of established method for measurement of a return on investment (ROI) prior to initiating the social service investment. In these situations, the business case tended to be "proven" based on the extrapolation of proxy measures and assumed average costs. As a result, while these types of business cases reinforce the public health benefits and savings, and create the plausibility of possible returns, they do very little to support a decision by an organization's financial management to sustainably continue the expenditures.

Payers and providers should establish a measurement approach prior to implementing an investment for two primary reasons: First, if you cannot measure the impact of the investment, there is less opportunity to learn or inform future investment. Second, attempting to extrapolate information post intervention may result in missing or incomplete data.

Inability to track or measure actual cost of care changes

Many healthcare organizations struggle with defining exactly what per patient operating costs are across the care continuum. While policy makers and payer organizations will refer to "cost" primarily as what was paid by the government or health plans directly to providers, this is not the same thing as the actual costs incurred by providers to deliver services. Since reimbursement is based on relatively arbitrary assumptions, there need not be any correlation to operational costs of care.

Quite often, providers themselves share in the confusion—with countless examples of business cases allocating costs based on what the provider is reimbursed rather than the actual resources it cost to deliver the services.[6]

To better track actual cost of care, avoid including the 'wrong' costs in the business case (see "Guiding principles for cost allocation in a social service business case"). If the program or investment is meant to reduce medical utilization, savings are best measured by the change in variable cost and not the change in average cost of service.[7] The more an organization is able to treat costs as variable, the more impactful a business case will become. Equally, from a business perspective, the financial component of a business case cannot include benefits that do not accrue directly to the organization.[8]

A lack of payment codes makes social services "invisible" to rate-setting parties

Social service activities are commonly excluded from established fee schedules, rate-setting formularies, and indices. This makes logging these services difficult to impossible and creates the risk that such expenses are "invisible" to payers or governments responsible for rate setting. And, while the principle of investment remains using one's own dollars to invest in new services (therefore not needing a reimbursement pathway), the drawback of these services being "invisible" to those in charge of rate setting is the potential that successful programs may result in rate decreases since less medical costs are incurred even though total actual costs (including the social service) did not necessarily decrease by the same amount. This hits investors on two fronts—firstly, they cannot capitalize on any savings achieved and secondly, they risk rate reductions.

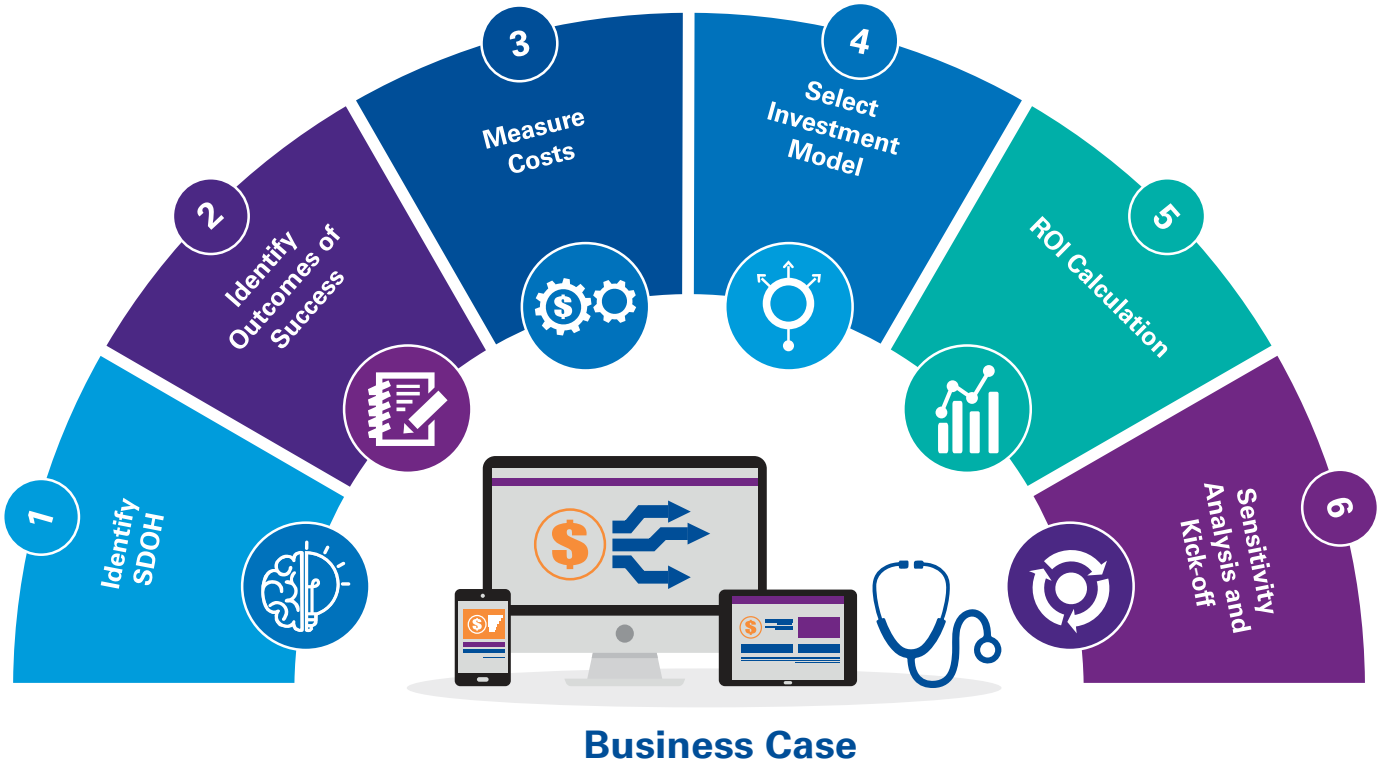
Organizations tackling this issue were all, to varying degrees, engaged in active discussions with their payers or policy makers to discuss options to allow for adjustments that account for social service spend when calculating medical loss ratio.

Building the business case

Based on the information gathered from the field research and input from industry experts, KPMG and The Commonwealth Fund defined a set of six key steps to guide healthcare organizations in setting up actionable business cases for social service investments. The objective of the steps is to support organizations in avoiding some of the key observed barriers and common misconceptions to social service investments and to accelerate the uptake of social service practice into ongoing business operations.

Please note that while the steps are laid out in a linear fashion, building a functional business case in practice will likely require iterating through the steps several times as new information becomes available and hypotheses are refined.

Figure 3: Overview of the six social service business case steps.



Source: Analysis of the authors, KPMG LLP.

Step 1: Identifying what to invest in—potential social service investment options

Data-informed hypothesizing plays a key role in identifying the HNHC target populations, underlying social drivers of care, and potential impactful social services investments. The type, timeliness, and accuracy of the available data will largely drive how many steps an organization can take before sense-checking any assumptions with front-line community workers, healthcare workers, and even the targeted patients. And while a lot can be done with data analysis, the eventual hypothesis testing must include some form of dialogue with local providers given the importance of cultural context and local sensitivities to any successful social investment strategy.

In the process of identifying HNHC individuals, it is important to realize that individuals who generate high costs of care are not always also high-need individuals.[9] High need is primarily determined by functional limitations. In an ideal scenario, an organization has access to cost, medical, and social information on its members. In practice, however, claims are often the most readily available information source that an organization will have access to. Using claims, organizations will typically be able to identify high-cost populations with high rates of (avoidable) hospital use and, with the right software, high rates of potentially avoidable complications. This approach could provide enough of an initial indication of which geographies and which medical profiles to target to initiate fieldwork to better understand the associated social drivers of the observed avoidable medical utilization.

> **"We usually rank interventions in order, but what we found is that the ones that make big difference on patient cost also make big difference on quality."**
>
> — Integrated service provider

For a more sophisticated identification of functional limitations and need, recent work by the National Academy of Medicine (NAM) Leadership Consortium for a Value & Science-Driven Health System has yielded a taxonomy framework for high-need patients that intrinsically ties clinical groups to functional impairments (see Figure 4).[10] By layering the NAM taxonomy on top of the individuals in the dataset already identified as high-cost, organizations will be able to start formulating more targeted hypotheses as to how they can start to address the gaps in need. When this NAM taxonomy is combined with information on some of the key high-impact social risk and behavioral health variables, stratification of these different high-cost, high-need groups becomes even more precise. See the Spotlights on Denver Health and the Carolinas HealthCare System for examples of stratification using clinical risk groupings similar to those proposed by the NAM in practice (👣👣).

Questions to consider

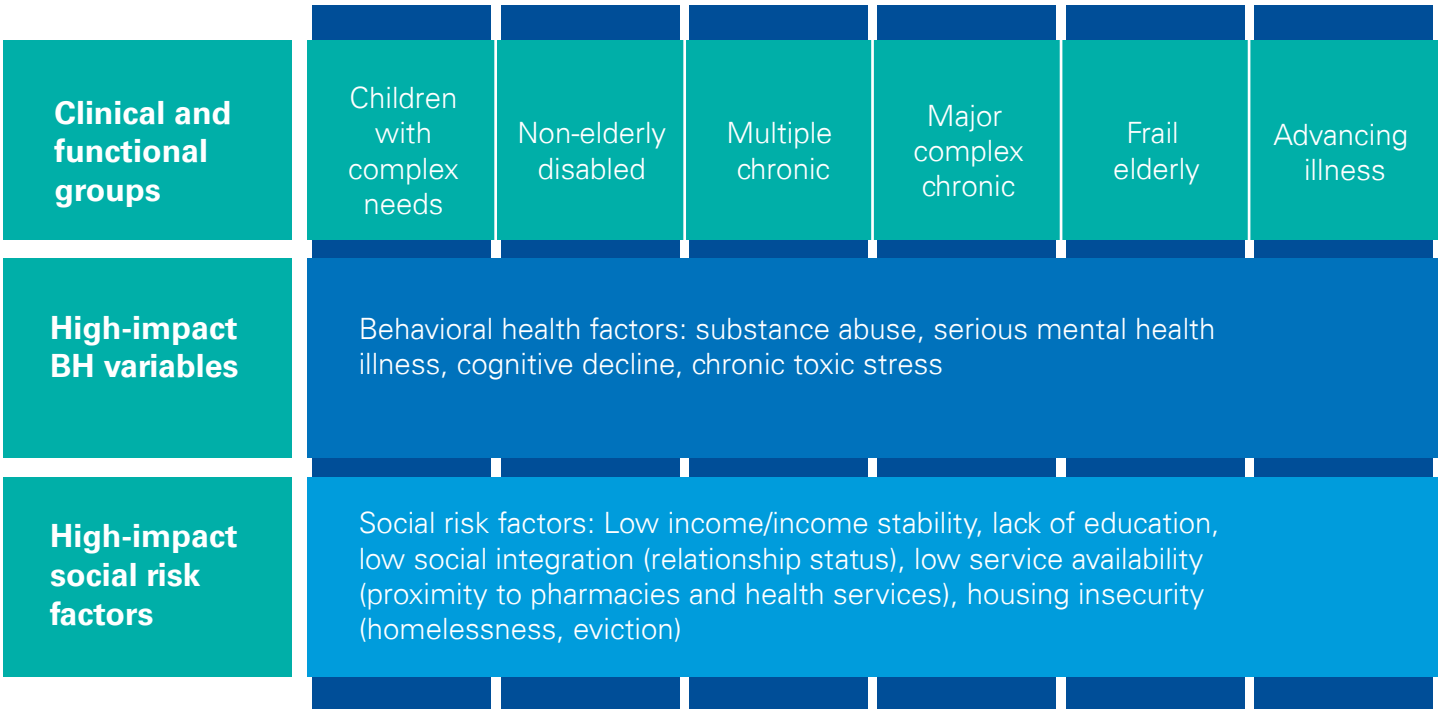
Is the identified social need something that the organization can credibly influence?

What resources are already available in these neighborhoods to address the identified need?

Will the proposed intervention likely yield a return on investment within one to two years?

A typical time frame for a business investment strategy is that it must yield a measurable return in one to two years. While this may seem limiting, longer time frames will make it more difficult to establish causality between the investment and any results as well as raise the investment costs and the risk that returns will not materialize. Based on the field research carried out in this study and the literature studied, there is no lack of examples of investments in social services that are capable of yielding short-term results for organizations to choose from.

Figure 4: A conceptual model of a starter taxonomy for high-need patients adapted from the National Academy of Medicine. The taxonomy combines principles of driving clinical and functional groups with high-impact behavioral health variables and social risk factors. NOTE: for this taxonomy, functional impairments are intrinsically tied to the clinical segments.



Source: Combination of several figures and tables from P. Long, et al., "Effective Care for High-Need Patients. Opportunities for improving outcomes, value and health," National Academy of Medicine, Washington, DC, 2017. Underlying information from K.E. Joynt, et al., "Segmenting high cost Medicare patients into potentially actionable cohorts," Healthc (Amst), 2016.

Step 2: Determining what success means—selecting outcomes of care

The purpose of investing in services to address SDOH is essentially two-fold: to improve the outcomes for people with complex social need while reducing (or holding neutral) total cost of care. To that extent, the number of key measures to be included in any social service business case can be kept relatively small. At the most basic level, a minimum of one quality and one cost measure is needed to determine whether the core value-driven objective of investing in the social service is being met.

For any regular business, this approach to an investment would seem relatively straightforward: the investments are targeted at improving the product, which in turn improves the chances that satisfied customers will help drive up demand, revenue, and profit. In healthcare, however, decades of fee-for-service transactions have essentially removed most of the connection between the outcomes of care (i.e., the quality of the "product") and the income related to the service. In healthcare, an enormous amount of compliance and process matters are tracked that do not actually translate into meaningful information about the value of care provided.[11] A side effect of the abundance of process measures is that organizations may be tempted to use process measures instead of outcome measures in their social service business cases given that process information is readily available and has been tried and tested in practice for years. However, for healthcare organizations looking to make impactful investments, it is especially important to focus on what matters to the individual. In practice, this means focusing on the overall outcome of the care (for example, through potentially avoidable complications or patient reported outcome measurements) and the total experience of the individual and not whether the distinct care steps were adequate.[12,13]

Questions to consider:

Can the outcome be influenced by the social service without too many degrees of separation?

Focus on outcome measures where it is relatively plausible that your chosen intervention will have some form of direct effect. If this is not the case, re-evaluate which direct (quality) outcome effects can be expected from the investment.

Can the outcome be influenced in the time frame set aside for the business case?

Is the necessary data available to track this outcome at a patient level?

Step 3: Measuring costs of care

The inability to correctly identify and allocate costs to patient care is a commonly listed barrier to being able to set up actionable and impactful social service business cases. Depending on the player in the healthcare system, the understanding of what is meant by costs of care will differ. Policy makers and payer organizations will refer to "cost" primarily as what was paid by the government or health plans directly to providers. This is not the same thing as the actual costs incurred by providers to deliver services. In any business case approach, the risk-bearing organization will look to maximize revenues and minimize the cost base. With the onset of Alternative Payment Model structures, management of the business case can become more complex given that there are more cost and revenue variables to account for.

Guiding principles for cost allocation in a social service business case

— Costs should be viewed as the sum of the initial investment, or start-up costs, and actual operating expenses of care to the organization, not the charges billed or collected.

— Costs must be allocated to individuals based on actual utilization of services rather than average costs per service. For the up-front hypothesis creation, best estimates may be employed. To determine actual ROI, however, it is imperative that actual costs are measured and allocated given that cost distributions may shift over time.

— Costs must be aggregated to an individual across the full care cycle for which the organization is responsible.

— Determine whether it makes sense to allocate fixed costs in the business case. Fixed costs such as personnel, rent, energy, etc., will typically not drop as patient utilization of services falls. Including them in the calculations will tend to inflate the expected cost effects of the social service investment. If the investment is meant to reduce avoidable medical utilization, savings are best measured by the change in variable cost of service. Of course, the more the organization is able to treat costs as variable (e.g., changing staffing rosters to reduce personnel costs—typically a more fixed cost), the more impactful a business case will become.

— From a business perspective, the financial component of the business case cannot include cost benefits that accrue outside of the organization. Public health advocates and policy makers often add the financial value of added (quality adjusted) life years or increased employee productivity to the benefits of the investment, but such benefits will not actually show up on the organization's bottom line. Quality benefits that accrue outside of the organization may be measured since they may correspond to the nonmonetary value and impact that the organization is trying to achieve with the investment.

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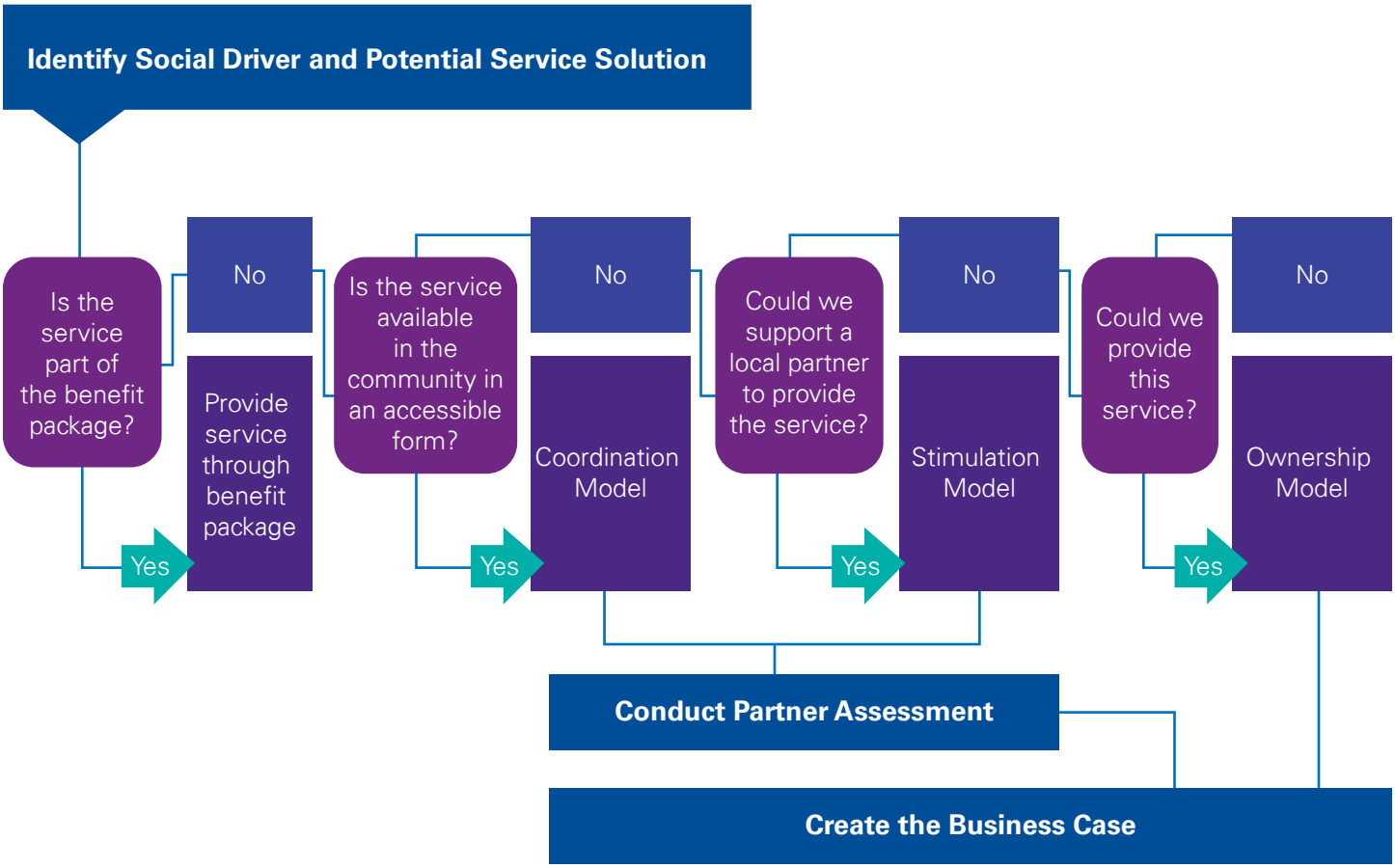
Step 4: Determining the appropriate investment model

In any social service investment strategy, an organization will have the ability to choose between (or combine) three distinct types of investment approach. While they are presented in a linear fashion in the figure below, considerations in practice may not follow the same left-to-right pattern.

Figure 5: Process Map Outlining Key Considerations for Social Service Investment Model Choice.



Source: Analysis of the authors, KPMG.

In situations where there is already a strong existing delivery model for the desired social service, a healthcare organization may consider reducing the burden of its own investment by focusing on improved coordination with existing social service providers. In a **coordination model** setting, it is important to work together with chosen social service partners to identify and maintain the win-win that the partnership facilitates for both organizations. The collaboration between the Maimonides Medical Center's Health Home and the Department of Criminal Justice is an example of a win-win approach using the coordination model ().

Quite often, however, situations call for more than a simple connection to an existing social service provider. The social service provider may not be ready to take on additional volumes, or may not be able to furnish the appropriate data to enable tracking the customers using the social services for the purpose of ROI calculations. In order for the connection to the social service providers to be sustainable, it may be more impactful to invest in a **stimulation model** approach. Instead of (only) improving coordination to a third party that provides a social service, the investment is used to provide temporary funds or a grant in order to address the identified gaps—data, business model, organizational structure, or otherwise. The key to the stimulation approach is that the investment is aimed at making the social service self-sufficient and not keeping it dependent on direct payments using healthcare dollars from your own organization.

Finally, cases will exist where it is clear that no progress towards value is possible without addressing a key SDOH, but there is no service agency or provider already established in the geography to help provide the required services at the necessary volumes. In that case,

continuous investment using the organization's healthcare dollars may be last resort. **Ownership** can mean literally owning the social service provider by acquiring it or it can mean continuing to pay directly for a service provided by an external party. In both cases, without the healthcare organization's direct payments for the service, the customers do not have access to it. While often the most capital-intensive investment approach, if the business case is positive, it could simply be the most rational thing to do. Molina's Justice-Involved Pilot is one such an example of an investment approach with an ownership model since all care coordination services are directly paid for by Molina. Geisinger's Fresh Food Pharmacy Pilot is another ownership example where Geisinger currently bears a portion of the cost for meal prescriptions.

Step 5: Setting up the return on investment approach

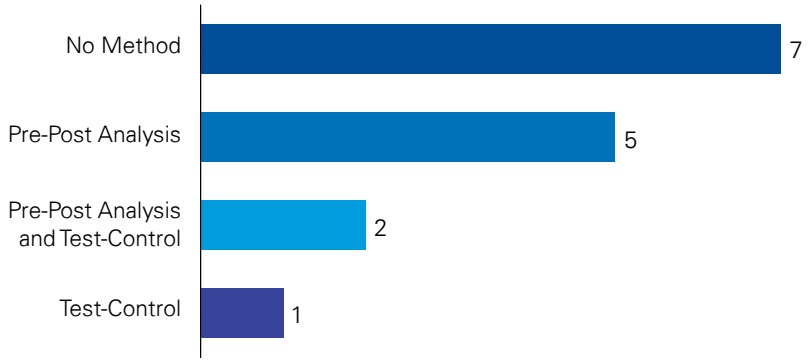
During the field research phase, 7 out of 15 interviewees indicated that they did not explicitly measure ROI for social service investments. This observation supports three potential reasons why ROI was not measured: (1) organizations struggle to adequately define relevant measures, (2) organizations struggle to collect the required information to measure both cost and quality impact, and (3) social service investments are often considered as pilot projects rather than core business strategies.

The selection of a ROI approach before embarking on the investment is extremely important since it will dictate what data is needed and how it should be collected in order to prove the business case. After all the hypothesis creation, field testing, and sensitivity checks are done, the last step to proving the case will rest with the ROI calculation itself. Broadly speaking, there are two types of ROI approaches that can be leveraged in practice: the **pre-post** model and the **test control** model.

> **"It is difficult to tease out impact [of social service interventions]. You are trying to find proof of the counterfactual. Since we have not and cannot do a randomized control trial, how do you ultimately determine that a program works?"**
>
> – Healthcare Payer Organization

In the **pre-post** approach, cost and outcome measures of the same group of patients are compared before and after the intervention. While a rather straightforward measurement, a key drawback with the pre-post approach is the need to account for regression to the mean (RTM) dynamics that may lead to potentially large overestimations of the observed cost reductions in the target group. A **test-control** model compares results of a targeted group against a similar group of individuals who did not utilize the service in the same time period. In this approach, the RTM effect is neutralized since the control group provides an estimate of the RTM phenomenon. In the test-control approach, it may be difficult to identify an appropriate control group. Among the eight respondents that did perform ROI analyses for their social service investments, the pre-post method was most commonly used (see Figure 6).

Figure 6: Bar chart showing results from fields interviews on approaches to ROI analysis utilized by respondents. Seven of the respondents reported not using an approach. Respondents = 15.



Source: Interviews with executives from participating organizations (see Appendix) between August 2016 and September 2017.

Step 6: Sensitivity analysis and investment kick-off

The last step before kicking off an investment is performing the required sensitivity analyses by modeling the impact of changes to the cost and revenue assumptions. In the Appendix of this guidebook, we have published a set of three detailed investment examples that provide a step-by-step look into how the business cases were constructed, which investment models were leveraged, and how the ROIs to the organization were calculated. The initial objective was to enable readers of this report to utilize the cost statistics and the observed financial returns as inputs for their own business case modeling purposes. Over the course of the research period, however, it became clear that readers considered cost estimates and projected impacts to be too situation and locality-specific to allow for comfortable reliance on external examples as a substitute. However, the example business cases do provide a helpful general sense of direction and serve as a great sample of innovative approaches that have established that they are able to generate fruitful returns in a limited amount of time to the investing organization.

Closing thoughts

The evidence shows the value of integrating health and social services to improve outcomes and lower healthcare costs. This paper offers practical guidance that incorporates feedback from the field to providers and payers to help them get started on the integration of social determinants as part of their core business.

While there are many examples in practice where social services have been included into healthcare models, these efforts tend to focus on piloting and testing the inclusion. Only a few examples were found of organizations that have moved beyond temporary grant funding to a more sustainable long-term model of integration.

The intent of this paper is to support social services as a sustainable investment strategy for healthcare organizations and to make their inclusion more mainstream. Based on the cases analyzed, initial social service investments have the potential to yield high financial returns within a time frame of 18 months or shorter.

We recognize that systematic changes to truly embed social services into the healthcare systems and care pathways takes time. Creating and demonstrating sustainable business cases is a first incremental step to true social service inclusion. Investments being made in the field today address the needs of individuals that are already high-need, high-cost patients. The next frontier in the social service investment space will be to prevent individuals from becoming high-need, high-cost in the first place, rather than seeking them out once they have already passed that threshold.

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Appendices

Business case: Health Plan of San Mateo Housing Supports Pilot

Table 1: Summary table of the business case for the Health Plan of San Mateo Housing Supports Pilot

Name/Social Service:	HPSM Housing Supports Pilot
Targeted Population:	HPSM LTC members that are dually eligible for Medicare and Medicaid
Investment Model:	Combination of Coordination and Ownership model
Time frame:	2014–current (3.5 years)
Cost of investment:	$2,750 increased per member per month (PMPM) costs as a result of increased costs for housing support, care plan oversight, case management, and LTSS*
Savings generated (gross):	$7,083 PMPM savings on LTC/SNF, healthcare and pharmacy costs
ROI analysis method:	Pre-post model: comparing six months prior and postintervention claims for 91 members
Calculated ROI (gross savings generated – cost of investment)/cost of investment:	$1.57 savings generated for every $1 invested*

*PMPM costs do not include a portion of the initial $1 million investment costs.

Source: Interviews with HPSM executives, data supplied by HPSM for the purpose of this research.

Health Plan of San Mateo (HPSM), a nonprofit public health plan operating in San Mateo, California, serves approximately 25,000 dually eligible members and deploys an integrated services model with three pillars of services: physical, behavioral, and social. HPSM offers a CareAdvantage (CA) plan that is part of California's Cal MediConnect financial alignment demonstration, a capitation program that actively identifies innovative methods to improve outcomes and lower costs for dually eligible individuals in Medicare and Medicaid.

While HPSM does include select social services in their benefit package, a large portion of the operating model includes working as a coordinating entity to better connect the beneficiary population to existing social service organizations. HPSM systematically screens their high-need populations for gaps in need to subsequently link them to "nontraditional services" that include housing, nutrition, transportation, and home improvement (e.g., wheelchair ramp). In this case study, we focus on a current pilot aimed at transitioning individuals with long-term services and supports (LTSS) needs from institutionalized to stable community living.

Hybrid Coordination-Ownership Model – Community Care Settings Pilot

In researching the long-term care (LTC) dual resident population, HPSM discovered that between 10 percent and 30 percent of the members were primarily in residency due to a lack of housing or other social reasons. In response, HPSM launched the Community Care Settings Pilot (CCSP) to target the housing support needs of their members with the objective of reducing institutionalization, improving quality of life, and reducing total costs of care for targeted members.

HPSM employs a hybrid model, investing in coordination with two local nonprofit organizations that specialize in affordable supportive housing and transitional case management as well as paying for a portion of the housing services.

The pilot team, made up of HPSM and its partners, prioritizes pilot participants based off a case-mix index tool, developed by the pilot team, to determine which participants exhibit the greatest chance of long-term success. The pilot team prepares a summary case and

makes a recommendation for an appropriate community setting referral: assisted living, individual home support, or affordable housing. The type of housing referral is determined by the pilot team and selected on an individual basis. Table 2 reflects the estimated costs to HPSM for each housing referral. Note that the amounts are the HPSM-paid portion of the costs only—a portion of the housing costs are funded through non-HPSM sources and are not depicted here (since they do not factor into the HPSM business case).

The CCSP program categorizes participants into three groups:

1. **LTC Residents** – Individuals living in long-term care facilities that could return to living in the community with additional long-term supports and services.
2. **Skilled Nursing Facilities (SNF) Diversions** – Individuals in acute care or short-term rehab settings being recommended for long-term placement.
3. **Community Diversions** – Individuals in the community determined to be at imminent risk of long-term placement.

Overcoming barriers

Securing funding for nontraditional social services is a persistent barrier. HPSM has managed to (partially) work around the need to invest only its own resources by leveraging a range of funding sources from "the Money Follows the Person demonstration," state waiver programs such as the Assisted Living Waiver, and the LTSS funding incorporated in Cal MediConnect.[14]

Measuring success

In alignment with the business case principles, HPSM measures the impact of the pilot both on the intended quality outcomes and on cost. Since the objective of the pilot program was to improve member experience, the key outcome measured is improvements to experienced quality of care. The cost measure of the pilot is defined as changes to total costs of care paid by HPSM. These include the institutional, hospital, and personal care costs per individual. Member experience is tracked through survey tools while costs are tracked through claims.

Results: Quality

The large majority of participant surveyed by HPSM indicated that their quality of life was maintained or increased during the pilot and that they were satisfied with the program:

84% **of all participants responded that they were satisfied or very satisfied with the services provided**

85% **of all participants responded that CCSP services maintained or improved their quality of life**

90% **of all participants responded that they would recommend the service to their family or friends**

90% **of all participants responded that their CCSP care manager had the knowledge and skills needed to help them.**

Table 2: Average monthly per person costs to HPSM for each type of housing referral

	Assisted Living	Individual Home Support	Affordable Housing
Average PMPM intervention costs to HPSM	$1,860–$2,130	$0–$400	$0–$400

Source: Results provided by HPSM for the purpose of this research.

Return on investment

To date, as of August 2017, 178 members have been transitioned through enrollment in the pilot program. HPSM analyzed the costs for a cohort of 91 members across varying housing types with at least six months of adjudicated claims prior to the housing transition and six months of adjudicated claims post transition. Using a pre-post analysis method, HPSM determined that average costs of care per member dropped 43 percent, from $10,055 to $5,721 per month following the intervention. This result does not take into account any potential regression to the mean effects.

Not surprisingly, since the program targets the reduction of institutionalization rates, the largest drop in per member costs were for costs incurred in institutional settings. Over $6,000 PMPM was saved on LTC and SNF costs per member. The drop in institutional costs proved more than enough to offset the increase in costs of the resulting residential care, LTSS and case management per member. Surprisingly, while not an objective of the pilot program, moving members to residential care also resulted in a significant drop in healthcare costs (including hospital costs) for the members involved (see Table 3).

Table 3: Pre- and Post-PMPM Costs by Type Across 91 CCSP Participants

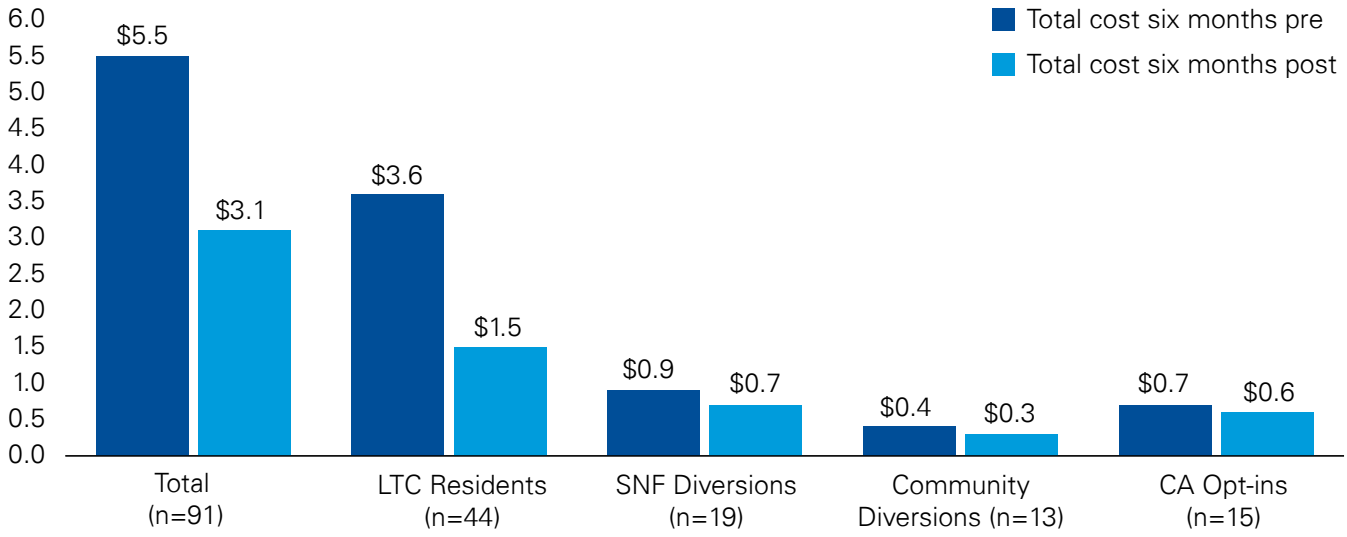
PMPM Cost Type	6 Months Pre	6 Months Post
Residential Care Facilities for the Elderly Costs	$0	$1,185
Care Plan Oversight Costs	$82	$209
Case Management Costs	$385	$1,156
Housing Retention Services	$0	$219
Pharmacy Costs	$696	$571
Healthcare Costs	$2,234	$1,483
LTSS Costs	$218	$666
LTC/SNF Costs	$6,439	$232

Source: Results provided by HPSM for the purpose of this research.

Across the 91 members, a total of $2.4 million of savings was accrued in the six months following the intervention, leaving a net savings of $1.4 million after accounting for the initial $1.0 million in start-up costs.

HPSM achieved cost reductions in all four of the participant groups. Most significant are the savings measured for the LTC residents being placed back in the community setting (see Figure 7).

Figure 7: Graph showing the total costs of care pre- and post-housing intervention for each of the four targeted population groups over the course of a year. Numbers do not include CCSP participants with less than six months enrollment post-transition. Costs in millions of dollars; $1 million in start-up costs not included in graph.



Source: Results provided by HPSM for the purpose of this research.

Business case: WellCare CommUnity Health Investment Program

Table 4: Summary table of the business case for the WellCare CommUnity Health Investment Program

Name/Social Service:	WellCare CommUnity Health Investment Program – Coordination and Data Sharing Investments
Targeted Population:	Individuals served by WellCare CommUnity partners (includes both WellCare and non-WellCare members)
Investment Model:	Combination of Coordination and Stimulation model
Time frame:	2011–current (6 years)
Cost of investment:	Approximately $700 per member per year (PMPY) based on the current operating costs for the Center for CommUnity Impact
Savings generated (gross):	$3,200 PMPY
ROI analysis method:	Pre-post model: comparing one year prior and one year post intervention claims for 8,382 members
Calculated ROI (gross savings generated – cost of investment)/cost of investment:	$3.47 healthcare savings generated for every $1 invested in the Center for CommUnity Impact

Source: Interviews with WellCare executives, data supplied by WellCare for the purpose of this research.

WellCare Health Plans, Inc. (WellCare) is a national managed care health plan covering 2.8 million members across the United States, primarily serving Medicare, Dual Eligible, and Medicaid patient populations. While the WellCare benefit package does includes some nonmedical services, many social services are not included in the benefit package. As for many other payers, the monitoring and tracking of the access to, usage and efficacy of nonmedical services (either in or outside of the benefit package) to their members proved elusive and challenging.

In an effort to address the data gap and gather better insights on the positive effects of social service providers, WellCare launched its Community Impact Model (also known as HealthConnections) in 2011. The model comprises of four components that are all targeted at removing the social barriers to healthcare access, reducing overall healthcare costs and building up a network of critical (and effective) social supports for their members. Through the first component of the Impact Model, the **CommUnity Health Investment Program**, WellCare provides "micro-grants" to CBOs, nonprofits, and other community partners that support social services. These partners receive funding from WellCare specifically for the exchange of data or for the build of infrastructure to support data exchange.

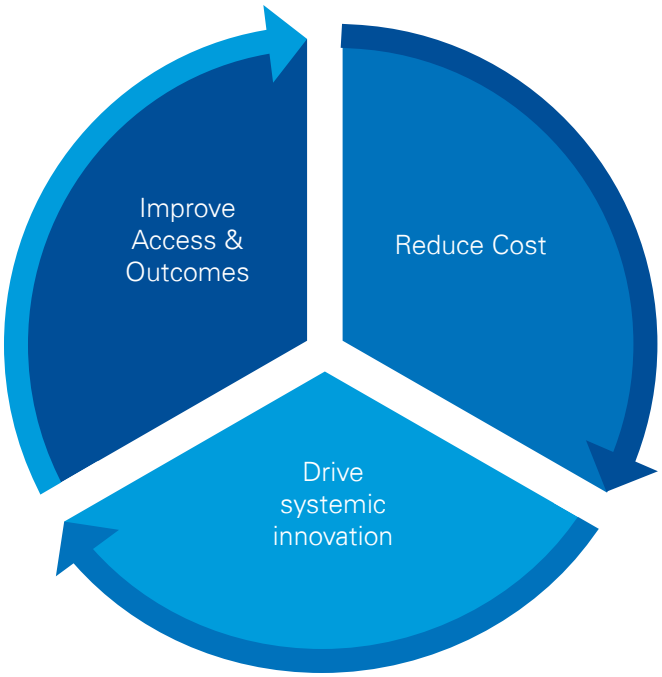
In addition to the CommUnity Health Investment Program, the CommUnity Impact Model includes three other components:

- **CommUnity Assistance Line** – a national call center for members and other consumers to be referred to social service providers and other amenities.
- **CommUnity Liaison Program** – supporting care management improvements by employing "liaisons" with lived experience to catalog available resources and assist callers to the Community Assistance Line in navigating community-based and social services.
- **CommUnity Connections** – field-based teams who contract with social service organizations for the exchange of data.

Investing in coordination and data sharing

WellCare's unique approach to social service investments through the CommUnity Health Investment Program allows it to invest funds into the build of data-sharing infrastructure and data exchange with its social service partners rather than the more "traditional" payments for the provision of services. As such, the WellCare social service investment model is a hybrid form of a **coordination and a stimulation model.**

Figure 8: Key goals of the WellCare CommUnity Impact Model



Source: WellCare

As part of the CommUnity Health Investment Program, WellCare supports six different levels of investment contract with social service providers. Typically, the investment contracts will be offered to those social service providers with whom WellCare has an established relationship and to whom there are large amounts of referrals from WellCare members. The type of investment contract depends primarily on the data sophistication and existing data exchange structures that the social service provider already has in place. In Level 1, WellCare provides grant funding to the provider to build out data sharing capabilities. In Level 2, WellCare enters into a (aggregate) data sharing contract with the provider. In Levels 3–6, WellCare will secure contracts for encounter-based social service reporting of increasing sophistication with the social service organization. Contracting costs for Levels 1 through 6 vary between $1,000 and $15,000 per contract per year.

WellCare's approach to investment creates a win-win situation for both WellCare and the participating social service providers. As a result of the investments, WellCare receives better data to understand the effectiveness and impact of its social service referrals, which allows it to redirect care to high-value providers. The benefit to the social service partners is two-fold: they obtain improved insights to support their own business processes as well as infrastructure that they could not have afforded without additional funding.

"We pay for data exchange. This helps agencies be able to work with us. We pay for infrastructure—we are not in position to pay for a social service but can pay for infrastructure and data."

– WellCare executive

Current state and operating costs of the CommUnity Impact Model

After starting small back in 2011, WellCare currently operates a national CommUnity Assistance Line and CommUnity Health Investment Program in 15 states and works with organizations to address 73 distinct categories of social need. The WellCare social services database contains a catalog of over 185,000 resources which is updated constantly. To date, over 45,000 people have been referred to over 145,000 services. The most common referrals are for transportation (17 percent of all referrals), healthy food access (13 percent), medication assistance (12 percent), housing (11 percent), and financial assistance (9 percent).[15]

The operating costs of the Center for CommUnity Impact have grown from an annual $500,000 investment to approximately $6 million annual costs today. All costs are paid for exclusively by WellCare: there are no other funding sources for the program. The quoted operating costs include the costs of all social service data sharing contracts through the CommUnity Health Investment Program, the CommUnity Assistance Line, the CommUnity Liaison Program and the field-based CommUnity Connections team. WellCare does not allocate corporate overhead in the operating costs. The costs of the initial build of the associated Web-based platform underpinning the entire Center for CommUnity Impact and the CommUnity Impact model are also not included in the annual operations budget. Any savings obtained through the model are invested back into CommUnity Impact Model and disbursed via the CommUnity Health Investment Program.

Measuring success

WellCare measures the impact of the CommUnity Impact Model on patient experience, healthcare outcomes, and healthcare costs. Every patient referred through the CommUnity Impact Model is asked a series of five qualitative ranking questions regarding their experience with the connected social service. For health outcomes, WellCare is able to measure a number of quality indicators for referred patients such as Body Mass Index, medication assessment scores, and frequency of required screenings. Lastly, for costs, WellCare measures total medical spend of referred patients.

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Results: Quality

The quality measures tracked by WellCare vary by type of social service. The measure results below were supplied by WellCare and are examples of the differences between patients for whom a social barrier had been removed as a result of a successful referral and patients without any form of intervention/referral. Based on WellCare's research, patients that were able to have their social barrier removed were:

6.9x more likely to have a better Adult Body Mass Index score

2.8x more likely to have a better medication assessment score

2.3x more likely to have a better Colorectal Cancer screen

1.7x more likely to schedule and go to their Annual PCP visit

Return on investment

In a recent study among 8,382 participants, results from a one-year pre-intervention and one-year post-intervention period indicate that greater access to referred social services is strongly and significantly associated with lower levels of medical care spending during the index year. For each additional service that is accessed, total medical spending during the index year is lowered by more than $450. The average participant total annual medical spend was reduced by $3,200 in the first year following a social intervention. Almost half of the annual cost reductions are driven by reduced ED utilization and associated costs (26 percent) and reduced hospital utilization and associated costs (23 percent).[16]

WellCare anticipates achieving a positive return on investment in 2017 across both the annual budget as well as the cumulative investments made in prior years. WellCare's return on investment strategy is not to see profits but instead to re-invest in its communities through the Center for CommUnity Impact (specifically through the CommUnity Health Investment Program) and have it evolve into a self-sustaining program.

Business case: Molina Healthcare Jail Diversion Program

Table 5: Summary table of the business case for the Molina New Mexico Justice-Involved Pilot

Name/Social Service:	Molina Healthcare Jail Diversion Program – Care Management
Targeted Population:	Molina members incarcerated in a state and local jail
Investment Model:	Ownership model
Time frame:	2016–current (1 year)
Cost of investment:	N/A – would include all care efforts prior to release date
Savings generated (gross):	$7,854 in PMPM savings generated
ROI analysis method:	Test-control model for 125 participants
Calculated ROI (gross savings generated – cost of investment)/cost of investment:	N/A

Source: Interviews with Molina executives, data supplied by Molina for the purpose of this research.

Molina Healthcare (Molina) is a national managed care health plan covering 3.5 million privately insured, Medicaid, Medicare, and dual eligible members across the United States. Molina's mission includes securing access to everything that allows their members to fully live their lives. This includes access to services that impact social determinants of health, such as food, housing, recreational activities, a library card and employment support.

Molina offers a wide range of social service programs to their Medicare, Medicaid, and dual members, including transportation, early childhood education, respiratory flare-up prevention, transitional support, nutritional assistance, and jail diversion programs. For Molina, these programs are considered an investment since the costs of the social services are not covered by the benefits package.

Working with an Ownership Model – New Mexico Justice-Involved Pilot

In June 2016, Molina Healthcare of New Mexico (Molina) launched a Justice-Involved Pilot in Albuquerque aimed at reducing jail-recidivism, improving health and quality of life, and decreasing the costs of care for individuals released into the community after a period of jail incarceration. The pilot deploys trained care coordinators (CCs) to work with inmates and former inmates to coordinate medical and behavioral healthcare services (including medications), secure housing and employment, and connect members to familial and social supports. These activities seek to initiate support prior to release dates to prevent any gaps in coverage and social supports that may lead to adverse medical events, such as Emergency Department (ED) admissions.

Under the frameworks described in this paper, Molina's approach to the Justice-Involved Pilot is best described through the **ownership model**. During a period of incarceration longer than 30 days, Medicaid coverage is suspended by the Human Services Department and any work carried out by a plan prior to the release date is not covered.[17] All care activities prior to their release are, therefore, not reimbursable and considered a direct Molina investment. While Molina works with community partners, Molina contributes its own capital to provide the targeted care coordination and transitional support services.

This pilot is unique to Medicaid Managed Care Organizations (MCOs) in New Mexico and through September 2017, Molina has worked with more than 276 members at the Metropolitan Detention Center (MDC) in Albuquerque. Presently, this pilot is aimed

at individuals incarcerated in MDC, a jail run by state and local governments, and not prison but Molina is investigating this opportunity for a potential future pilot. Molina members are identified by MDC at the point of incarceration. From there, MDC staff approach these members, explain the services Molina Care Coordination can provide while they are incarcerated and post-release. If interested, MDC then contacts a Molina CC who performs an assessment during incarceration. The assessment is used to connect the member to appropriate services and supports once released.

Measuring success: Quality

To track the success and sustainability of the Justice-Involved Program, Molina measures performance on four key outcome measures that track improved member connectivity:

In order to determine program efficacy, Molina leverages a **test-control measurement approach** by comparing the results of the group that received the additional care coordination prior to release to a group that did not participate in the program. Based on early results gathered by Molina through August 2017, Molina members that participate in the pilot program show lower jail-recidivism rates (16 percent) as compared to members that do not participate in the program (40 percent) (see Table 6). The reduced jail-recidivism benefits Molina by ensuring their member receives continuous care and there is not disruption in premium payment to Molina.

Measuring return on investment

In an analysis on a selection of members that had participated in the MDC program, Molina found that per member per month (PMPM) costs were significantly lower than members that were not engaged in the MDC program. For engaged members (n=125), average PMPM measured $3,941 post-release, compared to a $11,795 PMPM for non-engaged members (n=125)

Table 6: Overview of key outcomes and measures used in the Justice-Involved Program and associated results.

	Measure	Outcomes and Status as of August 2017
1	Number and percent of members released with a completed health risk assessment (HRA) and comprehensive needs assessment (CNA)	229 HRA (91 percent) and 162 (65 percent) CNA completed
2	Number and percent of members released from incarceration who are engaged with a CC for a low-stress behavioral health and/or healthcare transition into the community	100 members (40 percent) presently engaged with CC post release
3	Percent of jail-recidivism or members released from incarceration who are not engaged with a CC who are then re-incarcerated	16 percent as of 9/1/2017
4	Number and percent of members referred and admitted into a recovery program upon release from incarceration	1 member (0.4 percent)

Source: Molina Justice-Involved Pilot data, 2016–2017.

Spotlights from the field

CareMore – Lyft Cooperation

Lack of access to nonemergency care related to transportation issues is a problem for an estimated 3.6 million individuals nationally.[18] The resulting delay (or potentially foregoing of) treatment can cause destabilization and exacerbation of illness, leading to subpar outcomes of care and potentially higher healthcare costs, especially among the most vulnerable high-cost, high-need individuals.[19, 20]

While state Medicaid programs are required by federal regulations to provide nonemergency medical transport (NEMT) to qualifying beneficiaries, many commercial Medicare Advantage plans also fund NEMT for their members.[21] However, long wait times for NEMT (wait times may be as high as 60 minutes), combined with rising vendor costs, have undermined both the efficacy of the service for patients (who may end up giving up on the wait) as well as the financial feasibility for payers.

In an effort to reduce NEMT wait times, improve member experience, and lower overall NEMT costs, CareMore launched a three-month, self-funded rideshare pilot in May 2016.[22] The pilot offered CareMore Medicare Advantage and dual-eligible members in California the option to order NEMT through the Lyft rideshare platform.[23]

The results from the first month of the pilot showed:

- Average reductions in NEMT wait times from 12.5 minutes to 8.8 minutes (30 percent).
- Average reductions of per-ride NEMT costs for CareMore from $31.5 to $21.3 per ride (33 percent).
- Improvements in patient satisfaction, which was the main reason for CareMore to launch the pilot. Current satisfaction levels measure at 81 percent.

Due to the pilot's early success, CareMore has since expanded the Lyft-based NEMT service to members across the total CareMore footprint: California, Nevada, Arizona, and Virginia.

"You can't dismiss how important it is to have a partner that is willing to embrace the hurdles of working in the healthcare space. They didn't flinch at the mention of HIPAA—because they had already tasked a team to start addressing that."

- Dr. Sachin H. Jain, CareMore President

Maimonides – Criminal Justice Collaboration

The Brooklyn Health Home, led by Maimonides Medical Center in New York, launched a pilot project in 2014 to work with the Department of Criminal Justice Service and the Office of Mental Health to identify Rikers Island Correctional Center inmates on its Health Home list, most of whom have had Medicaid at one point and will need it reactivated upon release. By working to find inmates before their release, Maimonides has an opportunity to immediately actively enroll these individuals into the Health Home and start collaborating with other partners on effective engagement and care coordination.[24]

Geisinger Fresh Food Pharmacy

As an integrated health services organization, Geisinger serves patients across Medicare, Medicaid, and commercial insurance plans. In an effort to address the food gap and improve the experience of patients with Type II Diabetes that are food insecure, Geisinger Health Systems (Geisinger) launched a "Fresh Food Pharmacy" pilot at one of their hospitals in Shamokin, Pennsylvania, in January 2016. Pilot participants were selected from a pool of patients already engaged with their provider, with an elevated HbA1c level and positive responses to a short questionnaire.

The Fresh Food Pharmacy offers participants prescriptions for five days of breakfast and dinner ingredients for the patient and all household members. In addition to being given the ingredients, the participants meet with multiple members of a comprehensive care team who provide recipes and hands-on instruction on how to prepare healthy meals, develop medication management plans/treatment plans, close care gaps, connect with providers, and make education/resources available to self-manage diabetes. All recipes provided are in accordance with guidelines provided by the American Diabetes Association.

Since Geisinger launched its initial pilot from an existing location and as part of an existing diabetes management program, the marginal costs for providing the additional food pharmacy services are relatively low. A portion of the funding for the program is collected through philanthropy and the rest is paid for in kind by Geisinger. Food purchasing costs are kept low by procuring about 80 percent of the produce from local food banks at reduced costs. In total, for the first year of the pilot, Geisinger was able to provide food at a cost of only $3 per person per week. Given that food is provided to the patient and the associated household members, average total food costs per patient per year are estimated to be around $1,000. These costs do not include the costs for location or the diabetes management team, which includes a dietician, registered nurse health manager, pharmacist, community health assistant, health coach, and a primary care provider. Several of these resources were already embedded members of the care team and others were hired specifically for this program at this location. For others looking to replicate the Geisinger model, investment costs per patient may need to include additional provisions for location costs as well as teaming costs.

To date, average HbA1c levels of pilot participants have decreased by 20 percent. From other research, Geisinger estimates that every point decline in HbA1c levels saves approximately $8,000 in healthcare costs. Against an annual investment of only $1,000 per patient, even a low efficacy of the program will likely result in break-even results.

Geisinger is currently expanding the pilot program to two more sites in Pennsylvania and enrollment is now at 75 participants. Geisinger aims to scale the program to 250 participants by the end of 2017 and open additional locations in 2018.

Denver Health – Approaches to Patient Segmentation and Risk Stratification

Beginning in 2012, the Center for Medicare and Medicaid Innovation (CMMI) awarded Denver Health, an integrated safety-net health delivery system, a $19.8 million grant to develop a new form of population segmentation and patient risk stratification strategy to support population health management. Over the course of three years,

Denver Health developed and implemented a methodology for segmentation that utilizes clinical risk groupings for initial stratification, but allows for clinical judgement and utilization statistics to override the calculated risk grouping to arrive at an eventual segmentation of patients into four "Tiers". While clinical risk groupings and cost analysis may provide a good base for segmentation, there is still a chance that calculated high-risk patients do not necessarily require a high-need, high-touch approach and vice versa. By enabling professional judgment to override the calculated segmentation results, Denver Health is better able to identify actual high-need patients and direct them to more intense levels of care while avoiding overtreatment of individuals that may show high clinical risk, but not the associated level of need.

Denver Health's approach to segmentation appears to have paid off. Over a one-year period, the system saw an approximately 2 percent reduction (equivalent to $6.7 million) in expected spending. Most of the savings were driven by a decrease in hospitalizations among patients in Tier Four, also known as the "super utilizer" group.[25]

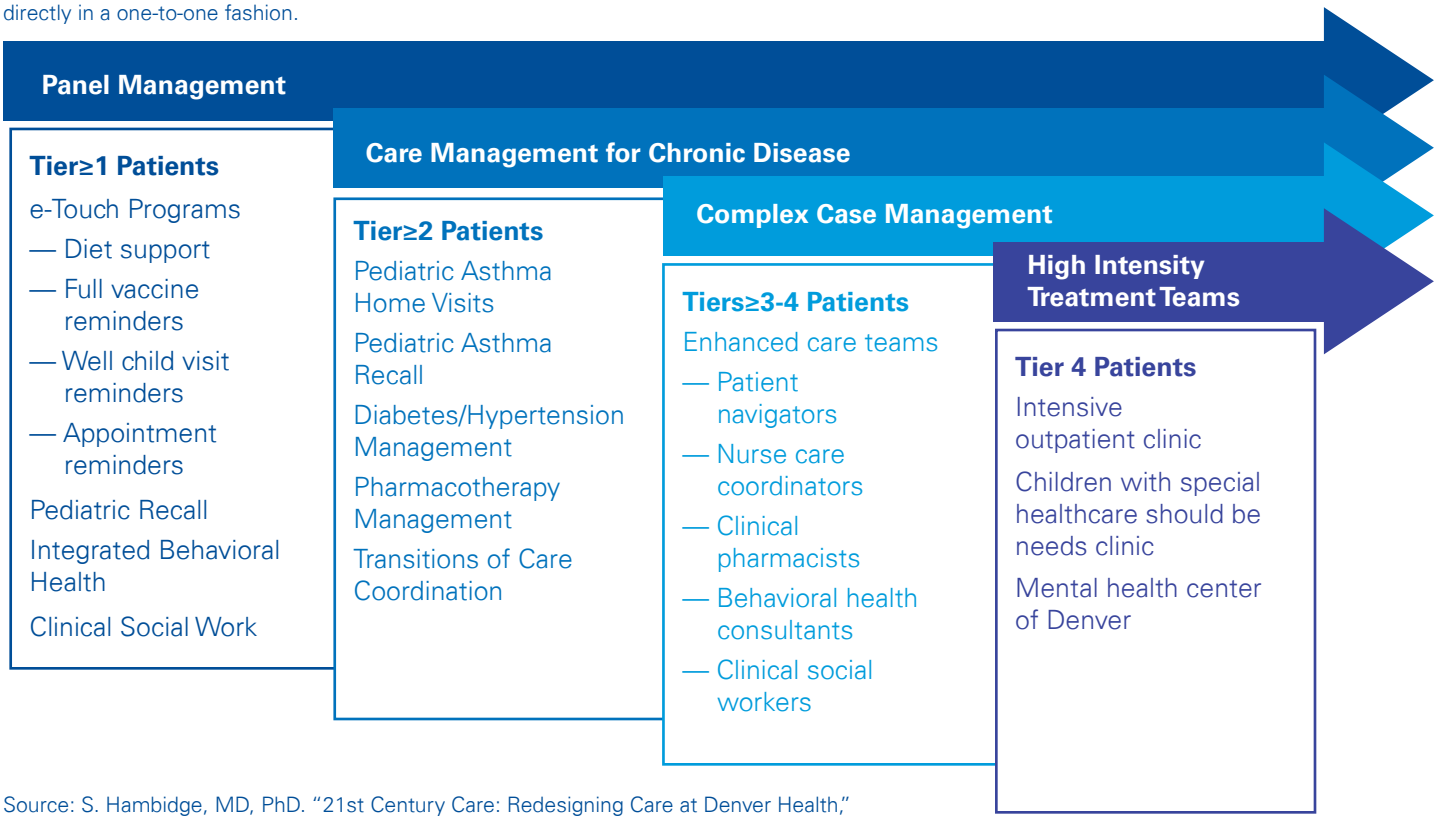
Carolinas HealthCare System – Cluster Analysis Techniques

Carolinas HealthCare System (CHS), operating in more than 900 locations throughout North and South Carolina, implements a patient segmentation approach using data from CHS's electronic health record system and billing systems supplemented with behavior, consumer, and geospatial data that pinpoints the census tract in which each patient lives.[26]

CHS uses cluster analysis techniques on the multisourced data sets to cluster its 2.2 million patients into seven mutually exclusive groups based on shared traits: Advanced cancer (0.6 percent of patients), complex chronic (6.6 percent), aging rising risk (16.7 percent), mental health (0.1 percent), pregnancies and deliveries (2.6 percent), newborns and toddlers (2.5 percent), sparse information, acute and well (71 percent).

In total, CHS analyzed about 2,000 variables in the statistical modeling process, allowing the data to drive the clustering rather than any preconceived categorization. The patient groups bear resemblance to, but are not

Figure 9: Denver Health's use of "Tiers" to assign patients to care programs. While the Denver Health segmentation approach is similar to the proposed taxonomy of the National Academy of Medicine (NAM) (see Figure 4), it does not map directly in a one-to-one fashion.



Source: S. Hambidge, MD, PhD. "21st Century Care: Redesigning Care at Denver Health," presentation held at the National Academy of Medicine on January 19th, 2016.

identical to the proposed NAM taxonomy discussed in Step 1. Given that the patient groups share traits, CHS is able to better target care management protocols. For certain groups, such as the complex chronic group, CHS will use its clustering techniques to further hone in on subgroups to support care teams in applying even more targeted protocols such as those for children with asthma. By linking an electronic asthma tool that translates the 6,000 different provisions of the asthma action plan (AAP) to point of care decision-making in the ED, CHS was able to reduce the ED visits for children with asthma by 34 percent in the 12 months following installation of the AAP relative to the 12 months prior.[27, 28]

New York City LegalHealth – Medical-Legal Partnerships

Since the onset of value-based payments, medical-legal partnerships have grown rapidly in number and have proven successful at directly addressing some of the root cause issues of the observed avoidable healthcare problems. At the time of writing medical-legal partnerships had been established in 294 healthcare institutions in 41 states.[29] One example of a fruitful medical-legal partnership is LegalHealth in New York City, which currently operates clinics in all 11 of the city's public hospitals. By supporting individuals in tenant-landlord disputes, the clinics are able to help solve issues that negatively impact health such as mold, poor ventilation, and bug infestations. At an average cost of $225 per case, LegalHealth was able to effectively demand apartment fixes for asthma patients, resulting in a 90 percent drop in emergency room visits and hospital admissions for that patient group.[30]

OneCity Health – CBO Evaluation Model

As part of the New York State Delivery System Reform Incentive Payment program, each of the 25 Performing Provider Systems (PPS) in the state are expected to move towards a value-based payment model by 2020. OneCity Health (OCH) is the largest PPS in New York City and one of the largest in the state, comprising hundreds of healthcare providers, community-based organizations, and health systems. The OCH vision is geared towards the establishment of a welcoming, accessible, and integrated health delivery system to demonstrably improve the health of all New Yorkers. Since the network's formation, OCH has made considerable efforts to partner with community-based organizations (CBOs) to help them better target the population in need of more community-based supports. However, upon initiating outreach efforts, it quickly became clear that the landscape of CBOs in New York City is extremely varied where not every CBO was equally ready or able to satisfy all the criteria needed to initiate and maintain a strong partnership in preparation for the value-based payment initiatives. In order to direct the selection and subsequent technical assistance efforts to CBOs in a structured manner, OCH developed a CBO evaluation tool to help them assess CBO readiness for partnerships as well as determine what type of capacity building would be needed to get them ready.

The OCH evaluation model assesses CBO readiness along four different axes:

1. **Funding sources –** the sustainability and operating ability of a CBO is directly linked to their funding sources. CBOs that rely heavily on grants may have an uncertain future if the grant funding dissipates. CBOs that are funded either directly through Medicaid or that maintain contracts with a steady flow of income present more financially secure partnership opportunities.
2. **Data collection and tracking –** accurate and timely referrals and tracking of outcomes are necessary to support an effective partnership. A lack of data collection capabilities on the part of the CBO may require additional technical assistance from OCH.
3. **Program design –** the degree to which the methods and approaches employed by the CBO can be considered evidence-based.
4. **Operations/Organizational culture –** a qualitative assessment as to how much organizational leadership is in support of a partnership model and how stable the CBO workforce is.

Each CBO is evaluated in a structured manner along each axis and then per axis, they are classified into one of three readiness stages, with Stage 3 being most ready for a partnership and Stage 1 requiring the most capacity building and assistance. Based on the outcome of the assessment model, OCH determines which partnership to pursue further and how they will be providing their partners with directed technical and financial assistance in the process. Based on the criteria laid out above, the OCH approach is an example of a stimulation model approach to investment provided that the technical and financial assistance is of a temporary nature.

Figure 10: Schematic depicting the various assessment categories of the OneCity Health CBO evaluation model to assess CBO readiness.

	Stage 1	Stage 2	Stage 3
Funding	— Majority of funding comes from grants	— At least 5 percent of organization's funding comes from a value-based-proposition (i.e., care management agency)	— At least 50 percent of organization's funding comes from a value-based-proposition
Data Collection and Tracking	— Little ability to track client base across programs. No formal data system. — Referrals made are not tracked systematically. Organization does not have the ability to track referral outcomes	— Basic demographic information collected on client base within programs. No centralized data collection system, unable to share information across different programs — Some referrals are tracked. Outcomes of referrals may be tracked and shared with some staff	— Data tracking system allows all staff across programs to access client information — Digital closed-loop referral system used across all programs
Program Design	— Less than 25 percent of organization's programs are evidence based	— Between 25 percent and 50 percent of organization's programs are evidence based	— Majority of organization's programs are evidence based
Operations and Organizational Culture	— More than 50 percent of staff are part time employees or volunteers — Little support from organizational leadership for creating value based proposition	— At least 50 percent of staff are full time employees — There is at least one "champion" at organizational leadership level who understands the importance of creating a value-based proposition	— At least 75 percent of staff are full-time employees — Organization's leadership recognizes the importance of value-based-proposition and has actively pursued contracting

Source: interviews with OCH executives; slide materials supplied by OCH.

Glossary

Alternative Payment Model (APM): a form of payment reform that incorporates quality and total cost of care into the reimbursement method rather than a traditional fee-for-service structure.

Claims data: information generated by medical billing of services rendered for patients, "claims," and submitted by medical providers to government and private health insurers. The information can be used to evaluate the delivery and cost of healthcare as part of evidence-based public health programs.

Fee for service: A payment model in which healthcare providers are paid for each service performed. Payments are done separately and not bundled.

Patient reported outcome measurements: a report on the status of a patient's health condition that comes directly from the patient.

Potentially avoidable complications: relevant key outcome measures that allow organizations to quickly hone in on key areas of concern in high-cost population.

Randomized Control Trial: a study in which subjects are randomly distributed into groups where they are either exposed to an experimental procedure, program, or service or in which they serve as controls.

Return on Investment (ROI): a performance measure that evaluates the (usually financial) gain or loss generated relative to the amount of invested.

Social Determinants of Health (SDOH): social factors that strongly impact health outcomes and the utilization of medical services. The Heiman and Artiga model from the Kaiser Family Foundation classifies SDOH into six categories: economic stability, neighborhood and physical environment, education, food, community and social context, and healthcare system.

Social service intervention: the provision of a service or an action by an organization (government, private, philanthropic, community-based, or other) that is designed to address a SDOH for a given population.

Variable and fixed costs: variable costs are those costs that vary depending on an organization's production volume; fixed costs are costs that are independent of output.

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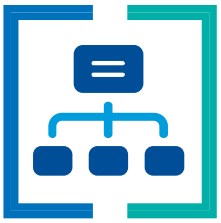

Participating organizations

Below is a list of the organizations that participated in this study, either as an interviewee, Advisory Council member, or Social Services Forum attendee.

#	Organization	Interviewee	Advisory Council Member	Social Services Forum Attendee
1	Innovative Health Alliance of New York	✓	✓	
2	Health Plan of San Mateo	✓	✓	✓
3	WellCare	✓		✓
4	Trinity Health	✓	✓	✓
5	Landmark Health	✓	✓	
6	Molina Healthcare	✓	✓	
7	Commonwealth Care Alliance	✓		✓
8	Hennepin County	✓		
9	Centene Corporation	✓	✓	
10	Geisinger Health	✓		
11	Blue Cross Blue Shield of Massachusetts	✓		
12	CareMore	✓		
13	Bellin Health	✓	✓	
14	Lowell General Hospital	✓	✓	
15	Medstar	✓		
16	OneCity Health at NYC Health + Hospitals	✓	✓	✓
17	Common Ground Health			✓
18	New York State Office of Mental Health			✓
19	New York City Administration for Children's Services			✓

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Endnotes

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[5] The Advisory Council for this research was assembled from a subset of the interviewees. Advisory Council members provided in-depth commentary and reflection on results compiled over the course of the research project.

[6] R.S. Kaplan and M.E. Porter, "The Big Idea: How to Solve the Cost Crisis in Health Care." Harvard Business Review. September 2011.

[7] Fixed costs will typically not drop as utilization falls. Trying to include fixed costs in a business case model will inflate the expected cost effects of the social service investment.

[8] Public health advocates and policy makers often add the financial value of added (quality adjusted) life years or increased employee productivity to the benefits of the investment, but such benefits will not actually show up on your bottom line.

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