

CREDITS

Prepared by the Center for Community Health and Evaluation and MedPOINT Management Services Funded by the California Health Care Foundation

June 7, 2024

TABLE OF CONTENTS



| Executive Summary | 1 |
|-------------------------------------|----|
| Background | 4 |
| Evaluation overview | 8 |
| Evaluation findings: Implementation | 10 |
| Evaluation findings: Outcomes | 18 |
| Summary and Considerations | 39 |
| Limitations | 41 |
| Appendix A: Evaluation Methods | 42 |
| Appendix B: Literature Review | 50 |
| Appendix C: Logic Model | 52 |
| Citations | 53 |

EXECUTIVE SUMMARY

BACKGROUND

This report presents the findings of an independent evaluation of Samaritan, a digital health intervention designed to assist people at risk or experiencing homelessness in gaining the social and financial support they need to reach their goals. California Health Care Foundation (CHCF), in collaboration with Health Care LA (HCLA), an Independent Practice Association (IPA), and California Hospital Medical Center (CHMC), supported the implementation of the Samaritan pilot in five community health centers in the Los Angeles area.

Care managers use Samaritan's technology to set goals for people with high social needs. These goals include housing, income, health, and other needs. Together, care managers and Members then break the goals into steps and identify any barriers to completing them. From there, Samaritan provides participants with financial and social support, which helps them take the action steps. Participants, called "Samaritan Members," earn financial incentives for completing steps. Along the way, Members also get upfront support to meet needs that could be barriers. The economic and social support comes from a mix of local community partners, volunteers, and people with lived experience. The literature offers few successful contingency management programs or data to support programs for people experiencing or at risk of homelessness.

The Center for Community Health and Evaluation (CCHE) and MedPOINT Management (MPM) evaluated this pilot program using a mixed-methods approach.

METHODS

The goals of evaluating the Samaritan intervention were to understand the contribution of the Samaritan program to Members' health behavior change, experience, outcomes (e.g., housing goals, chronic condition management), and the effect on health care utilization (e.g., emergency department, primary care utilization). During the evaluation design, key stakeholders also emphasized a desire for the evaluation to help them understand how Samaritan serves its Members and the cost of care. Additionally, they also wanted to understand the impact on the participating health centers in terms of staff experience and workflows. Finally, they wanted to understand the potential for Samaritan to be financially sustainable.

KEY FINDINGS

Ten key findings emerged from Samaritan, hospital, IPA, and interview data, categorized by program implementation and outcomes. Implementation findings describe establishing buy-in and systems, eligibility expansion, and relationships with community health centers (CHCs) as central elements to program success. The outcome findings revealed significant health care cost savings due to Samaritan Members' decreased use of the emergency department (ED), their increased use of clinic and specialist services, and their decreased use of facilities to which they were not capitated.

Implementation Findings

- To launch the program optimally, health centers need leadership, buy-in, ample start-up time, and alignment with teams already serving this population.
- Strict eligibility and enrollment requirements tied to health plans and hospital capitation limited the number of patients who could participate.
- Samaritan integrated well into health centers that had existing care manager teams. Integration in the acute care hospital setting was more challenging due to workflow constraints and patient population characteristics.
- Care managers' satisfaction with Samaritan and helping more patients connect to care helped to balance any additional Samaritan workload.

Outcomes Findings

- Financial support from Samaritan was cited as the most significant benefit for Members.
- Messages of encouragement from the community were meaningful and motivating for Members. This social support opportunity differentiated Samaritan from other similar programs.
- 7 Through Samaritan, Members increased their self-efficacy to meet their social needs.
- After participation, Samaritan Members had more appropriate health care utilization and were more likely to close care gaps.
- 9 Health care partner data showed that Samaritan significantly decreased the costs of care for Members.
- Members were satisfied with their experience participating in the Samaritan program.

SUMMARY

The evaluation showed clear benefits of the Samaritan program for Members and the health care system. Members experienced increased financial support and decreased social isolation, opportunities to build self-efficacy, connections to health care, and feelings that they were valued by the community. The participating hospital saw decreases in ED utilization rates and health care costs for Samaritan Members. When matched to a comparison population, Samaritan Members' health care for the twelve months following enrollment cost less than half that of the comparison population. These cost savings were associated with patients reducing their use of the emergency department and their use of facilities to which they were not capitated, as well as increases in Samaritan Members using clinic and specialist services. Further, participating health center data showed that in the twelve months following



enrollment, Samaritan Members improved the compliance scores HCLA uses to determine HEDIS (Healthcare Effectiveness Data and Information Set) care gaps. As Samaritan expands its program into future phases, key leaders, care managers, and Members offered many implementation suggestions related to eligibility processes, setting, resource preparation, consistent communication, and technical assistance.

BACKGROUND

This report presents the findings of an evaluation of Samaritan, a digital health intervention platform designed to assist people at risk or experiencing homelessness to gain the social and financial support they need to reach their health and housing goals. Samaritan's mission is to serve a population that is furthest away from, most difficult to reach, or last to benefit from services or programs such as housing or social health. This population is often already or close to experiencing homelessness. Samaritan applies the principles of contingency management programs, where Samaritan Members are reinforced or rewarded for evidence of positive behavioral changes, such as meeting with a care manager and attending preventive health care appointments. Samaritan Members access financial and social support to help them meet their needs and earn bonuses by taking action toward their social determinants of health (SDoH) goals. Samaritan also allows community members to donate money and send encouraging messages to people enrolled in the program.

California Health Care Foundation (CHCF), in collaboration with Health Care LA (HCLA), an Independent Practice Association (IPA), and California Hospital Medical Center (CHMC), supported the implementation of the Samaritan program as a pilot in five health centers in Los Angeles, which as a metropolitan area comprises 30% of the nation's unsheltered population.¹ These five health centers serve a substantial number of people experiencing homelessness or those who are at risk of becoming homeless (see Appendix A, Table 8 for a list of participating health centers and Figure 1 below for a visual of their relationships.

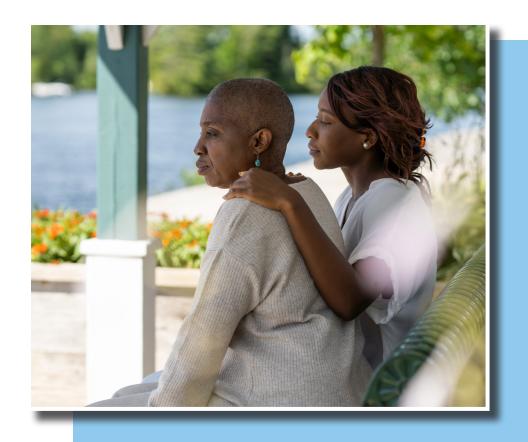


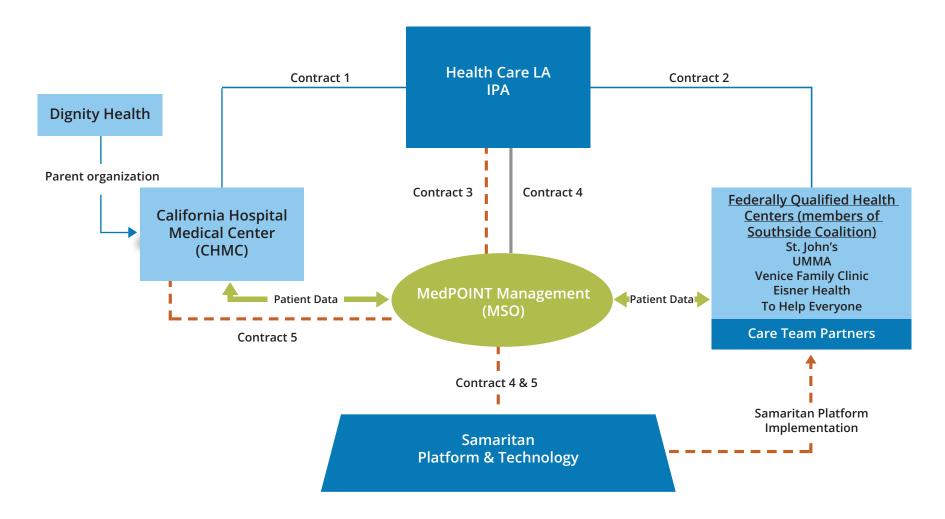








Figure 1: Relationship diagram by themeⁱ



5

ⁱ Contracts: 1. Capitation agreement between HCLA IPA and CHMC (facilitated by MSO), 2. FQHCs contracted as HCLA Member Health Centers for managed care services (facilitated by MSO) 3. MedPOINT Management contracted to provide MSO services on behalf of HCLA IPA 4. Samaritan City contracted with CHMC to implement Samaritan 5. Samaritan City contracted with HCLA IPA to implement Samaritan.

About the Samaritan pilot

Samaritan is a software platform, but for the auspices of this evaluation, we refer to it as a "program" as the platform works in concert with care managers to enhance existing engagement with their patients. This evaluation did not assess the technical aspects of the software platform but reviewed the platform's effect on care management and contingency management services and the impact on staff and patients.

The five health centers that participated in Phase One (pilot period) were introduced to Samaritan through community presentations, physicians, or leaders from HCLA. Once the health centers agreed to participate, Samaritan staff provided training and demonstrations and offered weekly check-in calls to support health centers in enrolling patients into a Samaritan Membership. Health centers received lists of eligible patients from MedPOINT Management (MPM).

CHMC and HCLA IPA determined eligibility criteria based on a list of patients who had six or more ED visits in the past year, provided and confirmed by MPM (eligibility was eventually expanded to patients with three or more ED visits). Using that information, participating care managers (n~40) offered Samaritan

Samaritan Eligibility Criteria:



High ED utilizer or experiencing homelessness



Assigned to HCLA



Assigned to participating HCLA health center



Capitated to CHMC

Memberships to their existing patients who met the required criteria. This bi-directional eligibility confirmation improved sign-up rates and helped the health centers gain access to a resource for their existing hard-to-engage patients. After the initial six months of implementing Samaritan, the pilot focused on enrolling Members from those patients eligible for the <u>California</u> <u>Department of Health Care Service's Enhanced Care Management (ECM) and Community Supports programs.</u>

The pilot was focused on members of HCLA, one IPA in LA County, who were capitated to CHMC, assigned to participating health centers, and were high emergency department (ED) users. Participating health centers that received Samaritan training enrolled 200 Members of the eligible patient population during this pilot period. Member word of mouth sometimes spread to other patients who inquired about the program but were not necessarily eligible based on criteria.

Through Samaritan, Members and care managers worked together to identify **customized goals and action steps to manage** their health care-related needs and social determinants of health (SDoH).^{III}

ii Capitation is a contracted agreement for fixed and pre-arranged payments to a facility.

iii SDoH are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

About the Samaritan pilot (Continued)

As Members completed their action steps, they received **financial incentives** (also called bonuses). The care manager could order needed goods and services with the patient on the Samaritan platform or release funds to a Samaritan debit card for the Member to use anywhere that accepts debit cards. Fund restrictions included the purchase of alcohol or cigarettes or withdrawing cash. In addition to receiving bonuses for action steps, a second financial feature of Samaritan was that Members could receive anonymous donations from Samaritan's local support network. Care managers worked with Members to share a donation request to Samaritan's network for a specific need that was a barrier to an action step being completed (such as a phone device, phone service, footwear, bus fare, interview clothing, a deposit, or debt).

In addition, Members received messages of affirmation and **social support** through the platform. These were provided by Samaritan's support network comprising local volunteers and people with lived experience (local "samaritans"). Messages of encouragement could be sent in addition to or standalone from financial support). Messages of encouragement were received by Members via text message, email, or their caregiver if they did not have a contact method associated with their Membership. Members could decide whether or not to reply to a message of support, which was reviewed for content by Samaritan staff, Algenerated filters, and caregivers.

Phase One pilot of Samaritan in LA County included:

- 15-month pilot (April 2022 July 2023)
- Eligible patients participated for 6-12 months.
 Some Members stayed in the program slightly longer.
- During the pilot, 200 patients were enrolled across the five health centers.
- During participation, care managers had access to the Samaritan platform to set up individualized action steps and financial incentives together with Samaritan Members.
- Because care managers had access to the Samaritan platform, participation in the program did not require access to a cellphone, computer, ID, or bank account. If a Member had access to a smartphone, they could access benefits through notifications about their balance, next steps, and messages of encouragement.

Partner Roles

| Partner | Role(s) |
|--|--|
| Samaritan | Provide a technology platform that helps connect and empower people experiencing homelessness with financial and social support to meet their needs. Provide technical assistance to implementation partners to support Members. |
| СНМС | The hospital that financially supported the Samaritan pilot for its capitated patients; conducted small pilot to launch Samaritan in a hospital setting. |
| HCLA | IPA that financially supported the Samaritan pilot for its assigned Members and helped to engage participating health centers. |
| МРМ | Determined if the Member met eligibility criteria and provided eligibility lists, tracked Member data, and contributed to quantitative analysis of Member cost/utilization data. |
| CHCs/Health centers/ Care managers | Provided care management services and support to Members. Used the technology platform to enroll and provide incentives to Members. |

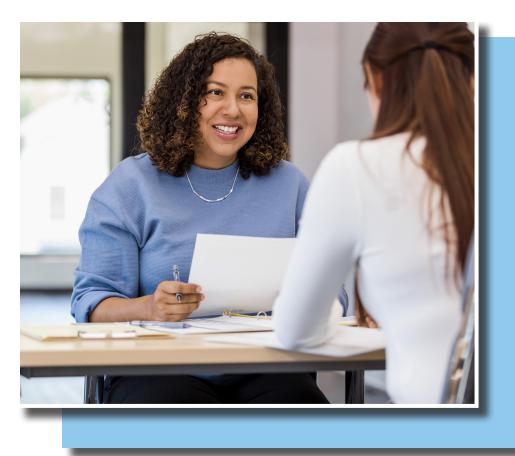
EVALUATION OVERVIEW

The goals of the Samaritan pilot evaluation were to understand the contribution of the Samaritan program to Members' health behavior change, experience, outcomes (e.g., housing goals, chronic condition management), and the effect on health care utilization (e.g., Emergency Department, primary care utilization). During the evaluation design, key leaders emphasized a desire for the evaluation to help them understand Samaritan's overall reach and its impact on health care utilization and cost. They also wanted to understand the impact on the participating health centers in terms of staff experience and workflows. Finally, they wanted to understand the potential for the Samaritan program to be sustained.

The Center for Community Health and Evaluation (CCHE) and MPM used a mixed-methods approach, combining qualitative data analysis from interviews with quantitative analysis of health plan claims data and data collected directly through the Samaritan platform. The evaluation period was from April 2023 to May 2024.

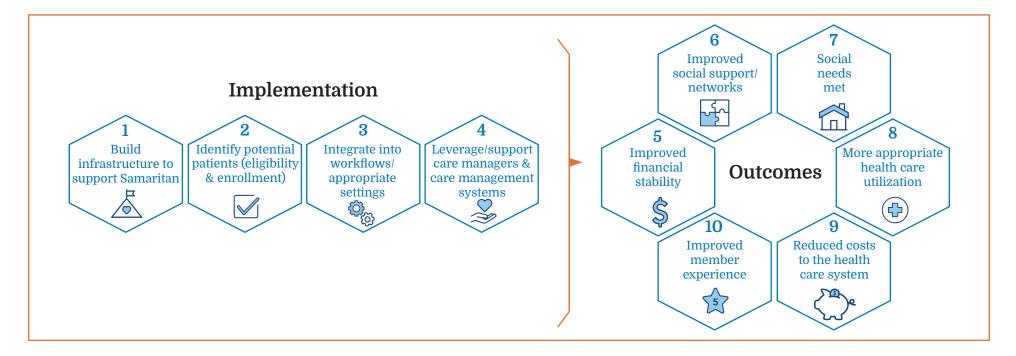
The evaluation plan included evaluation questions (Appendix A, Table 6), measures, and data collection methods (Appendix A, Table 7.) The evaluation findings were based on data collected through:

- 17 interviews with key leaders from participating organizations (see Appendix A, Table 8)
- 8 interviews with a sample of care managers who were implementing Samaritan
- 18 interviews with a sample of Samaritan Members (i.e., patients)
- Data from MPM on health care utilization and outcomes
- Data from Samaritan's platform on engagement, goals, and social and financial supports



Appendix A, Table 9 includes demographic and chronic condition data. These demographics provided context for the patient population for both the overall population engaging with the Samaritan program (n = 137) and the smaller population of Samaritan Members being interviewed for the evaluation (n = 18). The team also performed a literature review to scan for peer-reviewed information for guidance on evaluating contingency management programs to inform the evaluation design (see Appendix B).

The following results from the evaluation were derived from qualitative and quantitative analyses of each data source and triangulation across data sources. The evaluation team organized data around ten key findings related to the implementation and outcomes of the Samaritan pilot program in LA County. See <u>Appendix C</u> (Logic Model) for how the findings in the figure below connect:



EVALUATION FINDINGS: IMPLEMENTATION

The first four evaluation findings relate to the implementation of Samaritan in terms of resource allocation, enrollment processes, implementation setting, and care manager partnerships.



To launch the program optimally, health centers need leadership, buy-in, ample start-up time, and alignment with teams already serving this population.

Successful components of health center implementation

In interviews with key leaders and care managers participating in Samaritan, key informants were asked to reflect on what helped to enable the successful implementation of the program. The key facilitators they identified included leveraging existing programs dedicated to serving high-need, housing-insecure patients, dedicating staff, integrating it into workflows, enhancing collaboration with other health centers, and utilizing Samaritan's technical assistance.

Ten key leaders and care managers identified a **strong alignment between the goals of ECM and Samaritan** and found them to be mutually beneficial for patients. They commented that ECM staff were well positioned to implement Samaritan and that aligning the programs helped reduce the administrative burden on care managers. Two care managers also commented that Members tended to stay more engaged in care management when they were participating in ECM as well as Samaritan, and a key leader also noted a similar symbiosis.

Care managers whose clinics dedicated staff and systems to implement Samaritan shared their successes. For example, one clinic's care manager described, "When staff needed support, we acknowledged the current workload and allocated certain care managers to assist with Samaritan specifically. Or we decreased the current workload so there could be a balance to absorb the demands of Samaritan [during implementation]." Care managers also appreciated support from their health center leadership, which included piloting the integration of Samaritan into their workflow, leveraging the ECM program, and providing a guide for using incentives. A care manager stated: "We are designing a workflow so that it becomes a tool helpful for care managers with current work rather than a burden in additional work to do."

Leaders also described Samaritan as **enhancing collaboration** among organizations participating in the pilot. Key leaders and care managers positively reported how partners collaborated to engage as many patients as possible and address capacity and workflow challenges as they emerged. While some of these informants had various views on the quality of communication across partners, several identified a strengthened bond between the hospital and clinics or between clinics and community social service partners.

All health center partners appreciated Samaritan's **technical assistance**. Care managers felt that Samaritan provided effective support and training. At the program launch, they appreciated the educational meetings, and providers were able to spread the word

We had to learn at the start who the right people were who needed to be involved at different stages. We didn't train 10 health centers right away. We had to figure out data analytics and working [Samaritan] into their patient flow, documentation, internal systems, EHR (Electronic Health Record), care management.

internally as they saw the impact. Additionally, they indicated that Samaritan pamphlets made for Members helped clarify the details of the program. Care managers also appreciated Samaritan's support to solve problems around debit cards, eligibility determinations, and technology issues.

Challenges of health center implementation

Some key leaders and care managers experienced **challenges with the pace of implementation**. A couple of leaders expressed feeling rushed through implementing Samaritan, and several acknowledged that learning a new system takes time. They stated there was not always sufficient time built into the process to establish buy-in and explain things to their health center teams thoroughly. At the same time, five key leaders or care managers reported a slower-than-expected program rollout in some health centers because of staffing, communication, and eligibility challenges. One person suggested starting with a small pilot of Samaritan at their clinic and building from there rather than starting with broader implementation. See Finding 2 for more information on enrollment and information challenges.

Some care managers cited their lack of **understanding of the program** as an initial challenge, and others wished for more organizational leadership support (e.g., resources, and guidance). Both leaders and care managers suggested Samaritan consider creating a set of **predefined "action step recipes"** for care managers to use with their patients as a starting point, such as introducing action steps that are simpler and become more complex over time. Some health centers have already started creating these on their own.

Care managers and key leaders were also concerned with competing job duties and limited staff capacity to complete enrollment tasks. While most care managers' Samaritan Members were a small percentage of their total caseload, a few care managers shared that there was not enough staff or time to implement the program. Several key leaders were aware of these challenges facing care managers, and one emphasized the added challenge of staff turnover: "Health centers have been really challenged with workforce shortages; some lost care team staff and weren't able to implement. [Some] had to get a whole new set of people or didn't have the bandwidth to support more responsibilities. It's been difficult coming out of COVID." One health center decided not to expand Samaritan beyond their current care manager involvement because they found it hard to integrate into their workflow. Key leaders recommended investing in more planning at the beginning of implementation to have staff and systems set up to manage the extra Samaritanrelated activities. This preparation included organizing the right people, teams, workflow, and systems to support implementation duties on top of regular responsibilities.



Member technological and participation challenges

A few Members (ages 52-62) described logistical challenges related to the implementation of financial incentives. For example, they may have had to call their case manager to ask them to transfer funds to their debit card before they could access the funds, and sometimes, Members did not know how much money they had to spend. Some Members were confused or unclear about where the money they received came from and would have liked the opportunity to complete more action steps. Several Members commented that they had to learn how the card worked and that the **technology** was challenging (e.g., signing up, accessing funds, not losing the card, tracking action steps). One Member said, "I get some money from going to the doctor, but it's been a couple of months without using my account because of the problems." Additionally, not all Members could physically go to their health center to pick up their cards. Many key leaders were aware of these issues and suggested that Samaritan consider new technological ways to get money for Members.



Strict eligibility and enrollment requirements tied to health plans and hospital capitation limited the number of patients who could participate.

In interviews, several key leaders mentioned **limited eligibility criteria** as a challenge to the partnership. Most care managers explained that Samaritan Members comprised a small percentage of their caseload because of the strict eligibility criteria that limited who could benefit from the program. Samaritan also required a different care management workflow, making it more challenging to integrate Samaritan into standard work when it was only serving a small percentage of their patient population. As one care manager said, "We need a way to integrate this into workflow better, so any unhoused patient would have access to services. Now, because of the IPA collaboration, we are targeting those patients. We aren't providing this resource to all those who need it."

At least half of the health partner groups interviewed implied or expressed a desire for Samaritan to reach more patients in the future. A key leader explained, "There are definitely some organizations [not currently participating] that would like access to Samaritan, especially in south LA. Some of these already have care managers that set goals...having these goals paired with assistance would be great." When asked about their ideas about expanding eligibility, one key leader envisioned doing more

street outreach to people experiencing homelessness in a geography outside of health clinics.

What I find challenging is that some patients have a significant financial need but unfortunately they don't meet the current Samaritan criteria and thus are ineligible. I have a significant caseload of patients who fall under health care plans that are not contracted with Samaritan, but I would really love if they were.

- Care manager

When asked about program integration, many respondents requested more seamless information sharing and access to eligibility information. Some leaders wished Samaritan could be integrated into electronic health records or within systems to check eligibility or view a Member's health record across health centers and hospitals (e.g., to understand substance use, mental health screening, SDOH markers, and claims). One care manager shared that it takes time to check with partners and external data systems to see if someone is eligible, which can cause a delay in enrollment. Another health center reported that the web-based enrollment aspect burdened their care managers. They advised identifying a staff person with IT expertise, or at minimum, an external data partner, to help with reporting and eligibility tasks to reduce the burden on the care managers. Leaders understood that it is not feasible to integrate Samaritan into EHRs yet but were looking for ways to make data exchange easier.

^{iv} Eligible Samaritan patients were a) high ED utilizers or at risk/experiencing homelessness; b) assigned to HCLA; c) assigned to a participating HCLA health center; and d) capitated to CHMC (biggest restriction) (see page 6).



Samaritan integrated well into health centers that had existing care manager teams. Integration in the acute care hospital setting was more challenging due to workflow constraints and patient population characteristics.

Facilitators for health center implementation

Successfully engaging Members through Samaritan largely depends on **choosing an appropriate enrollment setting**. Implementing Samaritan in health centers leveraged positive, established relationships with patients to more easily enroll them into Samaritan. For one Member, their trust in their health center transferred to Samaritan: "I've been with the clinic for over 20 years. That is where my home is. Knowing the clinic trusts them [Samaritan], I can trust them too."

Several key leaders advised that future Samaritan rollouts should select environments or settings with most the potential for success, such as health centers with lower staff turnover and resources to devote to Samaritan. One leader described how one of the clinics that really could have benefitted chose not to participate due to having "too much on their plate. With ECM, they couldn't add another thing. There was no bandwidth." Similarly, staff from a clinic that did not enroll any patients indicated others were more successful "because [their] staff was more stable, seasoned, and knowledgeable in doing their job." A care manager also advised "being mindful of where and which team the Samaritan program is placed in." A key leader summed up this advice: "Leaders truly have to understand complexities within the systems they are trying to use. Even if it's a great value, they have to accept that certain organizations cannot support it and move on."

Without a relationship in place, the health center ends up expending a lot of resource for very small return. There is a value to concentrating on those patients that are highest users and bringing them back into regular care. Patients need a relationship with the health center.

- Key leader

People experiencing homelessness (PEH) in California have high rates of acute and emergent health service utilization.² In interviews, leaders explained how they initially tried implementing Samaritan in the acute care hospital setting to help

directly reduce ED utilization. At the start of the pilot, Samaritan staff made enrollment attempts in the ED, hoping to connect patients with the greatest immediate need with support through the program. However, technological challenges spurred leadership to shift the implementation strategy to partnering only with health centers that had more regular contact with patients through existing care management structures.

Working to connect to hard-to-reach patients is one of Samaritan's goals, but starting by identifying a **ready patient population** is important for success. However, one key leader shared how their health center overestimated the benefit Samaritan could have with a population of patients who had the highest needs. Patients who are disconnected from care and without a care manager to guide them may struggle to participate. A care manager stated, "Success would be if the patient population selection

could be a better match to the requirements of Samaritan." These findings align with a recent California homelessness report that recommends expanding targeted homelessness prevention in service settings, meaning those settings such as health centers with already actively engaged patients. Often, targeting people who are one paycheck away from being homeless means preventing the cascade of barriers that come from becoming unhoused and thwart the return to being housed again. To work towards the goal of more hard-to-reach patients, one leader noted, "It would be important that we have patients that meet that [next] higher level of care need - more of the street-based population model - [they] would be probably the next foray for us."

Challenges with initial implementation in the ED

When asked to describe the challenges of the partnership or program, leaders described consistent barriers to the initial goal of implementing Samaritan in the hospital setting. These barriers included the inability to do **real-time eligibility checks** (access to eligibility lists, staff time to identify patients); **technical issues** (e.g., device access and connectivity glitches during sign-up); **limited space** for private conversations with social workers, counselors, or navigators; and difficulty integrating into the ED **workflow**, which is structured around rapidly responding to acute needs. Some key leaders and care managers described the challenge of

In terms of understanding the complicated environment in LA County...I think there is still a fair amount of education in terms of how this program fits into the greater health care landscape and who pays for it at the end of the day... I'm not sure it makes sense to have hospitals participate [unless there is a dramatic improvement in reducing expenditures]. The focus may be more on the community clinic side.

- Key leader

connecting this population to a regular doctor or community clinic through Samaritan. A key leader stated, "The group picked is hard to pin down; they often [move from hospital to hospital]. Samaritan needs to partner with ALL the hospitals in a geographic area. Since the ER can't turn people away, people often have hospitals closer to where they live than the one they're assigned to and go to those instead."

A couple of health care leaders commented that although the ED setting had not worked yet for Samaritan implementation, it was still a good idea. One key leader shared, "It would have been great if they could have been enrolled in the ER (emergency room), but the current systems made it unworkable. The hospital needs a system to identify eligible patients; ER staff wanted to do it but didn't have the resources to do so [perform real-time eligibility checks in a crisis environment]." When asked for ideas on how Samaritan could persist in the ED setting to reach the highest-need patients, a key leader imagined being able to implement Samaritan in an expanded setting with more physical space and opportunity for privacy.



Care managers' satisfaction with helping more patients connect to care helped to balance any additional Samaritan workload.

Facilitators with the care manager relationship

In interviews, care managers (n=8) reported on their own experiences benefiting from Samaritan. Many reported that meeting immediate needs and building rapport with Members increased job satisfaction.

One key leader agreed that they have observed the Samaritan program being a morale boost for the care managers at their health center; it showed them that the organization is bringing in programs that make a difference. Another key leader emphasized that not only did Samaritan excite staff and add to their resource toolbelt, but it offered meaningful, material help to the hospital system's most challenged patients.

Several care managers stated that Samaritan was unique because it was **easy for them to use** and **met Member needs quickly** by providing resources in an efficient and customized way. A few mentioned that it is important to speak a Member's native language, explain the benefits of Samaritan during implementation, and help

them understand and trust the program.

Samaritan has made things a little easier and kind of helped the patient get to where I would like to see them faster, since they have the financial incentive...it already goes with my work, just flows into it. It's not really extra time consuming.

- Care manager



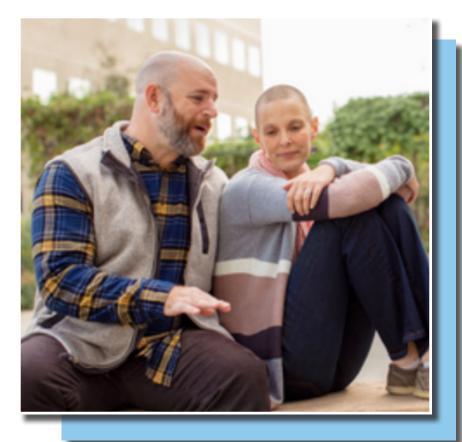
Scheduling **regular check-ins** with Members and external partners helped with the implementation and engagement of several care managers. One care manager talked about establishing regular routines for Samaritan Members, and that led to Members expecting the routine and eventually checking in themselves (displaying self-efficacy). One care manager discussed the Members who often reached out to them before they had planned to reach out to the Member. Another care manager reported gaining extra insights into holistic Member journeys because of Samaritan. One care manager felt there was no change after implementing Samaritan because they felt they were already connected with their patients in a supportive way.

One care manager shared that it worked well to **engage Members' families** to support them in engaging with the program so they could continue to provide support after the Member graduates from Samaritan. Similarly, our <u>literature review</u> noted relatives being influential in patients' success in staying housed. A few Members also applauded how well care managers were engaging them during a visit or over the phone about accessing funds or creating and achieving goals.

Challenges with care management duties and Samaritan

The few challenges mentioned by care managers centered around the additional time it required of them to support Members in participation in the program. Several mentioned the time it took early on to lead Members through understanding the program, ensuring consistent phone access, getting their debit cards, helping them through their action steps once they established them, and documenting the progress (which was duplicative if the patient was also enrolled in ECM). One care manager described how even with a proportionally small Samaritan caseload, Samaritan had at times taken up half their workday due to back and forth with members; however, other care managers noted that it did not add significantly to their workload.

Several care managers noted that they had to **provide support** to Members to understand the program. A few care managers shared that Members could exhibit confusion about the first use of the card or seem confused about how Samaritan works. A few Members also expressed concerns that there was a catch because of the financial incentive, indicating some distrust of the system. Helping Members **learn to budget** their bonuses and spend on what they actually needed and not take advantage of the program was also a reported challenge by two care managers.



EVALUATION FINDINGS: OUTCOMES

The following six findings provide insights into Samaritan outcomes regarding financial and social support, Member self-efficacy, ED usage and cost, and Member satisfaction. **Most significantly, the data showed that the costs of care for Samaritan Members were significantly less than the costs of care for matched patients.**



Financial support from Samaritan was cited as the most significant benefit for Members.

Most Members said that the **financial support that they received from action steps** was the primary reason they signed up for the program. Members used the money for various purposes, including transportation, housing, utilities, medical costs, and household supplies. Several Members noted that these funds made a significant difference in their quality of life.

For the 200 Members enrolled during the pilot period of 4/15/22 – 2/16/24, there were 2,789 action steps assigned by about 40 care managers. The number of action steps per Member ranged from 1 to 72, with an average of 11 per Member.

The action steps assigned started with registrations and assessments for Samaritan and went on to action steps such as following up with Primary Care Providers and meeting with specialists. Most of the action steps assigned were for medical appointments such as preventive and follow-up care, followed by returning to see care managers (Table 1). In addition to specific action steps, care managers could assign financial incentives to recognize life events, such as a birthday, birth of a child, sobriety anniversary, etc.



TABLE 1: Number of action steps assigned by care managers, by theme

| Attending medical appointments for preventive or follow-up care Total: 1,046 | Attending Care Manager appointments/follow up Total: 790 | Completing SDoH assessments Total: 436 | Attending mental health appointments Total: 161 |
|---|--|--|--|
| Registering for the Samaritan program Total: 139 | Accessing housing -activities (such as application for HUD) Total: 62 | Completing recommended labs Total: 31 | Completing other paperwork (e.g., medical documentation, records, application for medical benefits) Total: 30 |
| Participation in evaluation (i.e., incentives for interview or documentary for Samaritan program) Total: 20 | Employment- related activities (such as interviews or applications) Total: 18 | Setting and making progress on care plans Total: 15 | Transportation- activities such as application or requesting funds for transit Total: 12 |
| Accessing resources for social needs (e.g., going to programs such as food banks) Total: 10 | Completing social needs (food-related) application Total: 9 | Engaging in substance counseling Total: 4 | |

During Phase One, 2,780 bonuses were distributed, totaling \$36,161. The financial incentive amounts distributed ranged from \$5-\$50, with an average payment of about \$12. The most frequent bonus amounts that care managers gave to Members were \$5 (950), \$10 (918), and \$20 (601). The amounts distributed started at the lower amounts of \$5 for action steps such as registering with the program and taking the SDoH assessments. The care managers gave higher dollar amounts for more challenging action steps, such as medical appointment follow-ups or mental health appointments (these ranged from \$5-\$50). There were instances of higher bonus amounts (more than \$50) early in the pilot phase. Samaritan quickly determined that higher amounts were not consistent with the auspices of the program and put programming parameters in place for future bonuses. One key leader applauded the idea of restrained use of funds so the financial incentives do not become a "band-aid" for Members (i.e., too much reliance on the bonuses could risk the self-efficacy built when the Member graduates).

Samaritan gave the care managers flexibility to assign action steps and bonus amounts based on the Member's individual needs so that they could vary widely between members. Because of this variability, the evaluation was unable to determine whether the bonus amounts made a difference in whether the action step was met.

In interviews, Members all reported appreciating the financial incentives they received. Many Members also appreciated the **freedom and flexibility** to customize their spending, using funds for expenses ranging from housing and utility bills to food and school supplies for their children. One Member was working towards a Certified Nursing Assistant degree and said Samaritan was motivating them and helping financially. Another was able to get an expensive pair of specialty eyeglasses necessary to address several major vision issues.

The money is supposed to go toward your goals. Say, for instance, I found a school for an updated nursing assistant license. Now, I can do a course but it's \$4,000. I don't have that. You can take that money on your card to put it toward that goal, or a bill, food, whatever.

- Member

Members varied in how much they counted on the funds to cover their monthly bills

or saw them as a backup account to

cover "extras." One housed Member said, "It works, but sometimes I forget it's on there. It's like a backup for me. Don't get me wrong, it helps; everybody needs extra."

I'd like to buy plants since my mom had a green thumb... she was always planting something. Pets were also important to my parents. When I wanted to buy pet food, as a homeless person, people thought I was crazy for wanting to feed my cats. Samaritan let me buy things that mattered to me that weren't a necessity.

- Member

Key leaders and care managers also reflected that the financial incentives that Samaritan offers were a significant benefit for Members. They commented on how funds were relatively easy to use and did not have a lot of restrictions, which gave Members more options for spending funds where they needed. To provide a comparison, a care manager commented on how difficult it can be for Members to get to stipulated locations for resources provided by other agencies: "Samaritan is a lot easier [for Members to access immediate resources]. So many Members will say they aren't going to downtown LA. We have an alternate way of funding and let them choose where they want to go to shop or find hotels."

While the financial incentives tied to action steps were viewed favorably by Members, care managers, and leaders, the data in this evaluation also could not determine whether there was a correlation between the specific number of action steps or the amounts of bonuses and Members' overall outcomes (i.e., whether higher level of engagement (action steps/bonuses) meant larger benefits from the program). However, overall participation's impact on utilization and costs are discussed in later sections.



Messages of encouragement from the community were meaningful and motivating for Members. This social support opportunity differentiated Samaritan from other similar programs.

In interviews, Members, care managers, and key leaders agreed that the messages of encouragement feature of Samaritan was unique and impactful for both Members and the community. Members described receiving words like "I believe in you," and "Keep moving forward," and "Don't give up on yourself." Several Members who graduated from Samaritan said they missed the social support aspect of the program more than any other, and some had saved messages to look back on during hard times. Our literature review findings suggested that even small social interactions with strangers can increase patient happiness and reduce social isolation (see Appendix B).

Samaritan's social benefits for Members

All members found receiving words of encouragement to be very supportive. For many, these **meant even more than financial support**. Most members stated that their **motivation** to achieve goals was improved by receiving messages of encouragement. One member commented, "The first one I got at 7 am, and it made my day. I didn't expect it. This [aspect of the program] was the most important. It helps me not get discouraged and [keep moving] forward. Everyone sends beautiful messages that they believe in me, and I should keep moving forward, that God is with me – [the messages] push me to keep fighting."

For every human being, most people want to tell you their story if you are listening nonjudmentally. When you are desperate, you want people to know you are, but also why.

- Member

More than one-third of Members talked about being isolated and not having a social support system, and the messages really helped them feel they were not alone and had people looking out for them. Some indicated that the support from messages of encouragement was different from other kinds of encouragement they received in their lives and that it was valuable in additional ways. For example, a Member observed: "It's very helpful to have someone that, without knowing you, gives you messages of encouragement and they do not criticize you and... focus on 'you should have been doing this'... it makes a big difference."

Some Members reported experiencing a mix of people sending messages, while a few **developed meaningful relationships** with specific people sending them messages. Most Members carried on some level of conversation with community members who sent messages, emphasizing that these messages reduced their feelings of isolation and came to them right when they were most needed. Many Members who had the technological access to get the messages directly through text enjoyed responding. "The encouragement is something I look forward to and sometimes helps me get through my day. [It] makes me feel encouraged and that I am not alone. I used to think nobody cares [about] what I am going through. Now. I don't have to ball up everything inside. I tell them how much I appreciate them sending a note and encouraging me." One Member started a newsletter for eight samaritans she met through the program since she desired to move past general anonymous greetings to share her own story and get to know theirs.

There is so much inequity for unhoused patients, we tend to overlook them. By not only providing financial benefits, but messages of encouragement, it really makes Samaritan special compared to other interventions. It's not just about financial incentives, but also about creating respect and value for this population.

- Key leader

The ability for strangers to engage with Members through personalized messages, even minimally, creates respect and value for patients who often feel overlooked. One key leader emphasized that the respect and value that Samaritan shows to the Members has a big impact. A couple of other care managers shared that messages of encouragement were keeping Members engaged with the health care system: A care manager explained: "Messages of encouragement are a way for them to stay in touch with us. They like to update their story and count all the little wins. For those who don't have a social circle, messages of encouragement are important. Many do respond to supporters and stay engaged."

Some Members wished for deeper connections with community members. For example, community responses sometimes felt impersonal or cliché to Members. One older adult Member wished they could hear a recorded message of encouragement and send a thank you message that way instead of only by text. One Member wondered if the community (donors) could connect Members to resources (through an organizational tab or forum post) as they engage with them.

Samaritan's social benefis for the community

Community participation as part of Samaritan's social support was cited by a few leaders as a distinguishing factor of the program. One key leader noted, "The fact that Samaritan includes community members is really important because it helps community education surrounding vulnerable populations. It creates community." Another key leader agreed that writing notes of encouragement can positively impact the community that writes them.

When asked what made Samaritan stand out compared to other contingency management (incentive) programs, several leaders discussed Samaritan's community donation aspect. For example, a care manager noted, "There's nothing like Samaritan when someone can donate to a person." A key leader remarked similarly, "The fact that Samaritan includes community members is really important because it helps community education surrounding vulnerable populations. It creates community." When asked whether they were working with care managers to identify requests for community donations, five Members were unaware of that aspect of Samaritan.

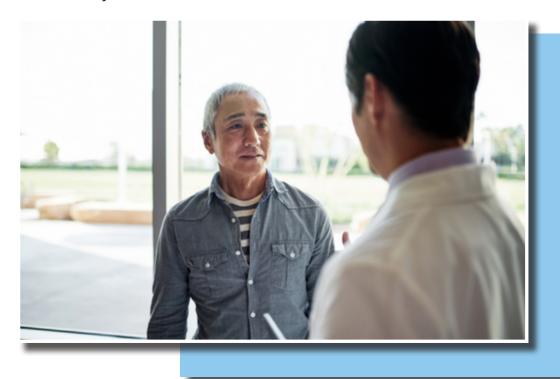


Through Samaritan, Members increased their self-efficacy to meet their social needs.

When asked if Samaritan was filling a gap in the health care system, key leaders described Samaritan as helping health centers address Members' social needs. Key leaders and care managers viewed Samaritan as meeting Members' needs by providing customized support to meet their health and housing goals.

Leaders commented that Members' **self-efficacy** is improved by building confidence around budgeting, planning, leading communications with Samaritans, and check-in routines with their care manager. One care manager acknowledged working with Members to plan for graduation and being up-front about the supplemental nature of the support, but not all care managers mentioned having routines to build Members toward self-sufficiency.

Members also talked about the program increasing their self-efficacy or helping to build trust confidence in their health care provider. A Members made specific comments about improved efficacy in knowing how to ask for help, trusting others, and advocating for their preferences providers. Several Members noted placing trust in Samaritan specifically, and two discussed improved trust in their care managers. For example, "I more willing toward asking for help now rather than being quiet and trying to figure it out." While the program helped to build trust and confidence during program, it's unclear whether that was sustained leaving the program. One Member described having trust and lower confidence in their ability to meet needs after having graduated from Samaritan due continued housing struggles and feeling they were navigating the health care system on their own.



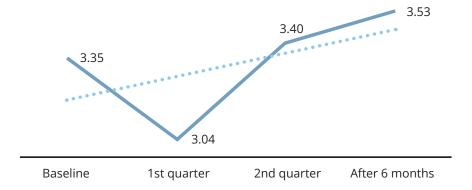
Member SDoH assessments move toward improvement

As a regular part of the Samaritan program, Members are asked to take assessments in domains of social determinants of health (SDoH) on a regular basis, starting from the baseline when they enroll in the program. The assessment focuses on four domains: access to safe housing, income, professional services, and social support.

For both the Members with baseline scores (n = 43) and those without baseline scores but more than one set of assessments (n = 45), averages in all four domains of SDoH scores improved over time, especially within the first six months of the program (Figures 2-5). All domain scores show positive trends for more than 180 days in the program.

SDoH
assessment scale:
(1) In-crisis
(2) Vulnerable
(3) Semi-stable
(4) Self-sufficient
(5) Flourishing

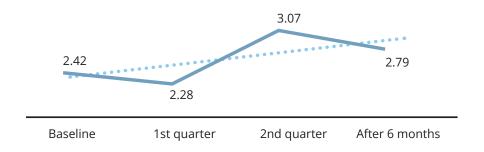
Figure 2: Access to safe housing scores, from baseline



In Figure 2, the average scores for access to safe housing started at a baseline of 3.35 and improved over time to 3.53. Even with a dip in the first quarter, the scores showed a positive trend, moving towards twelve months in the program. A score of 3 on the SDoH assessment for the access to safe housing domain means that Members' housing is semi-stable but only marginally adequate, transitional, or has rent >30% of their income. Score improvement towards 4 indicates they are closer to being self-sufficient, meaning they are in housing that is both adequate and stable in a safe location (whether subsidized or unsubsidized).

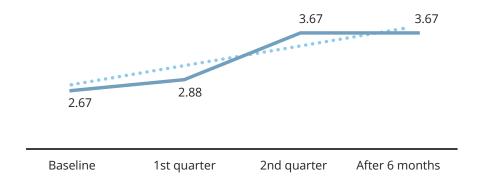
For this analysis, the evaluation combined 1906 assessments completed from June 2, 2022, through February 21, 2024, for 88 unique Samaritan Members. The assessments were classified as: (1) at baseline (when they enrolled); (2) in the first quarter after enrollment (0-90 days); (3) in the second quarter after enrollment (91-180 days); and (4) after six months post-enrollment (>180 days)

Figure 3: Access to income scores, from baseline



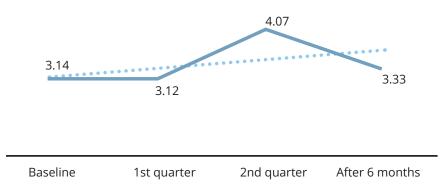
In Figure 3, the average scores for access to income improved over time from 2.42 to 2.79, with a high in the second quarter of 3.07. The scores overall showed a positive trend. A score of below 3 on this scale means that Members feel their income is inadequate to meet basic needs and that non-essential spending is unfeasible. Score improvement to a 3 or more indicates that they are closer to or currently feel semi-stable, meaning they can afford their monthly basic needs with assistance but cannot save or handle emergencies.

Figure 4: Access to professional services scores, from baseline



In Figure 4, the average scores for access to professional services improved over time from 2.67 to 3.67, which is the largest improvement seen on the SDoH assessment. The overall scores showed a positive trend. A score of 2 on this scale means that Members are vulnerable; they know of available services and resources but struggle to access them consistently. A score of 3 on this scale means that Members are semi-stable; they have access to needed services and case management, and they try to attend appointments consistently. Score improvement from less than 3 to almost 4 indicates they moved from vulnerable towards self-sufficiency, with a score of 4 meaning they are nearly able to set and make most appointments for needed or desired help.

Figure 5: Access to social support scores, from baseline



In Figure 5, the average scores in access to social support improved over time from 3.14 to 3.33, with a peak score of 4.07 in the second quarter. The overall scores showed a positive trend. A score of 3 on this scale indicates Members feel semi-stable, meaning they have few friendships and/or contact with family, and they know of communities they may access if they are in need. Moving from scores of 3 to 4 indicates that Members are between semi-stable and self-sufficient for access to social support, with average scores of 4 indicating that they maintain healthy and safe relationships and are connected with community support groups.



After participation, Samaritan Members had more appropriate health care utilization and were more likely to close care gaps.

Two primary goals for the Samaritan pilot were for Members to engage in more preventive care and to decrease utilization of emergency departments to improve health outcomes and decrease costs.

Improved health care utilization

The evaluation looked at utilization patterns for Samaritan Members before and after enrollment. Overall utilization of services across all places of service in the twelve months before and after Samaritan enrollment decreased by 14.0% in CHMC and by 2.1% in HCLA. The data shows that Members are going to CHMC less for non-emergency needs and are going to HCLA's network of providers for more preventive needs.

Consistent with the goals for the program, Members' visits to the ED decreased overall by 21.4%, for HCLA by 18.3%, and for CHMC by 27.5% (Figures 6 and 7). These decreases were statistically significant. Additionally, for both CHMC and HCLA, and more Members used Urgent Care instead of Emergency Departments in the twelve months following enrollment.

It told my care manager about my hypertension and anxiety and she said be calm, you can see the doctor. You don't have to go to the hospital. I'd be going 2-3 times a day, calling paramedics, feeling crazy. She helped me get appointments, see specialists, she was helping me so much I just stopped going to the hospital. It took a while for me to calm down. Now I sit and say a prayer, go outside take a walk. I don't get all upset when I go to the doctor no more. She's a calm girl, I like her.

- Member

[&]quot; 'Before enrollment' refers to available data for the Members from the place of service and center or hospital for twelve months prior to enrollment. 'After enrollment' refers to available data for the Members for the twelve months after enrollment. All data is for Members engaged in the Samaritan program for the twelve months before and after, not termed or disenrolled from the program.

vii CHMC's cost of services includes services that fall under capitation. Hospitals receive a fixed amount per patient, regardless of the number of services rendered. In contrast, HCLA's costs are higher because they include professional services that are not capitated, meaning each service is individually billed by the healthcare provider. Therefore, the analysis separated the costs and utilization number for HCLA and CHMC to accurately reflect these differences.

Figure 6: Number of visits by place of service (n = 136), before and after enrollment, HCLA claims

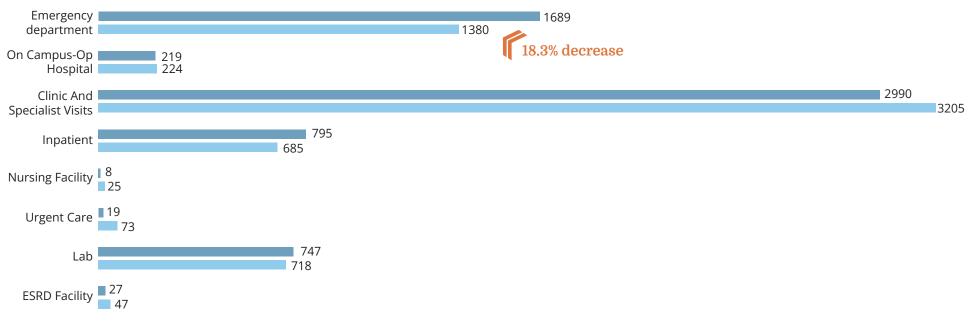
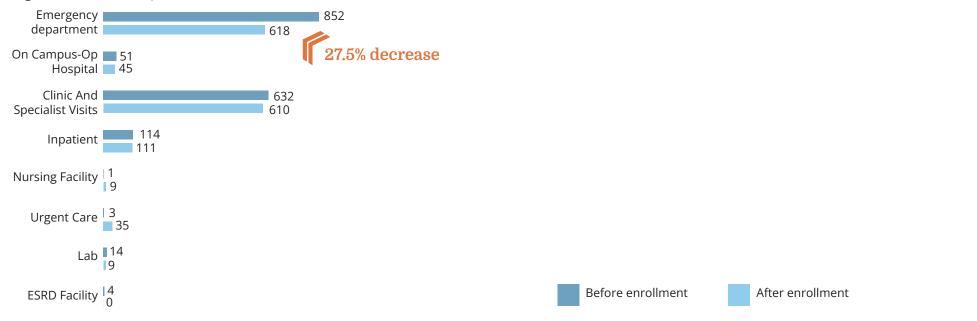


Figure 7: Number of visits by place of service (n = 136), before and after enrollment, CHMC data



The overall count of claims and services also decreased from before enrollment to after enrollment. However, there was an **increase in clinic and specialist visits for HCLA's patients** (Table 2), which could reflect an increase in more proactively seeking appropriate health services. The highlighted items in Table 2 show very large increases in Members visiting specialists for chronic conditions (such as diabetes), behavioral health, and prenatal care. Increases in these types of services show Members seeking more preventive care, as opposed to only going to the ED to treat emergent health needs.

For CHMC, hospital utilization also decreased by 17% in the twelve months following enrollment for Samaritan Members.

TABLE 2: HCLA specialty services, before and after enrollment, excerpt

| | CHMC + HCLA | Count of Claims Before Enrollment | Cost of Claims Before Enrollment | Count of Claims After Enrollment | Cost of Claims After Enrollment | Percen change |
|-----|-------------------------|---|--|--|---------------------------------------|------------------|
| | Diabetic Medicine | 1 | \$54.57 | 7 | \$157.85 | 600% |
| | Licensed Social Worker | 18 | \$ - | 50 | \$3,112.89 | 178% |
| (H) | Obstetrics & Gynecology | 17 | \$2,172.57 | 43 | \$1,251.52 | 153% |
| Ö | Dietician | 12 | \$ - | 30 | \$434.72 | 150% |
| Q | Psychiatry | 4 | \$354.94 | 10 | \$290.48 | 150% |
| 6 | Midwifery | 7 | \$ - | 35 | \$37.50 | 106% |
| | Home Health Agency | 1 | \$913.77 | 5 | \$ - | 400% |
| | Wound Care | 17 | \$2,735.00 | 44 | \$4,432.72 | 159% |
| | Urology | 14 | \$2,120.58 | 36 | \$4,463.99 | 157% |
| | Rheumatology | 15 | \$579.48 | 38 | \$3,320.22 | 153% |
| | Urgent Care | 12 | \$423.26 | 30 | \$518.02 | 150% |
| | Oncology | 7 | \$153.96 | 17 | \$602.14 | 143% |
| | Optometry | 13 | \$167.48 | 30 | \$634.68 | 131% |
| | Audiology | 4 | \$366.11 | 9 | \$381.58 | 125% |
| | Ophthalmology | 37 | \$4,559.99 | 80 | \$14,303.40 | 116% |
| | Pain Management | 34 | \$3,897.11 | 71 | \$8,405.20 | 109% |

In a matched comparative analysis, Samaritan Members were assigned to a group with four non-Samaritan Members in the HCLA system. The matching criteria included age, the number of Emergency Department visits, an acuity score (how critical their illness or injury is), whether they are homeless, gender, and ethnicity (when possible). More information on the matching criteria is in Appendix A, Table 7. Overall, the data showed that significantly more Samaritan Members used the hospital system they were capitated to rather than other, more expensive facilities, effecting a cost-saving. There was a 17% percent difference between the Samaritan Members and the Comparison group in terms of using the hospital system to which they were capitated.

| | Mean | SD | Relative difference | Significance | |
|--|-------|-------|---|--------------|--|
| Comparative Analysis | | | | | |
| Samaritan Members post-enrollment (2023) | 53.3% | 22.3% | Samaritan members were $t(678) = 0.00$ | | |
| Comparison group (2023) | 45.0% | 26.0% | more likely to use the hospital system they were capitated to than the comparison group | | |

Member compliance scores and care gaps

The evaluation used compliance scores that the health system assigned to each Member to understand whether Members closed HEDIS (Healthcare Effectiveness Data and Information Set) care gaps, indicating the fulfillment of appropriate prevention testing and specialist medical recommendations. For example, HEDIS scores focus on prevention, such as colorectal cancer screening and managing and preventing the complications of diabetes.

Within the Samaritan Member cohort from 2022 to 2023, the **mean 2023 compliance scores were significantly higher** for the year (M = 57.9%) than the mean 2022 scores were before enrollment in the program (M= 30.4%). This increase equates to a **91% improvement from 2022 to 2023 mean compliance scores**, which is a significant change in Member's engagement in preventive care while engaged with Samaritan.

The evaluation also assessed compliance scores for Samaritan Members compared to a matched comparison group in 2022 and 2023. When compliance scores for the Samaritan population were compared to the comparison group in 2022 (pre-enrollment) for these scores, no difference was discerned, showing that Samaritan members' compliance scores before becoming Members were no different than those of the matched population.

When the Samaritan population was compared to the comparison group in 2023 (post-enrollment), Samaritan Members had a **significantly higher mean compliance score** (M = 63.6%) **than the comparison group** (M: 56.5%), meaning they were accessing more preventive care and closing care gaps at a higher rate after engaging in Samaritan. This increase represents approximately a **13% improvement in compliance scores** when comparing the Samaritan Members to the comparison group.

| | Mean | SD | Relative difference | Significance | |
|--|-------|--------|--|---------------------------|--|
| Pre/post analysis | | | | | |
| Samaritan Members before enrollment (2022) | 30.4% | 31.9% | Compliance scores improved by | t(38)= -4.69 p= 0.00 | |
| Samaritan Members post enrollment (2023) | 57.9% | 23.4% | 91% for Samaritan Members from 2022 to 2023 | | |
| Pre/post analysis | | | | | |
| Samaritan Members post-enrollment (2023) | 63.6% | 20.8% | Samaritan members had | t(310) = -2.66 p=0.008 | |
| Comparative Population (2023) | 56.5% | 23.30% | 13% | | |
| | | | higher compliance scores for Samaritan Members versus Comparison population | | |



Health care partner data showed that Samaritan **significantly decreased the costs of care** for Members.

Reducing health care costs is a major and ongoing goal for any health care system. One key leader shared that they felt that the early apparent benefits of Samaritan to staff morale and patient well-being would be enough to offset the costs of the program if the hospital could breakeven financially.



Member costs and ED utilization decreases

In a review of the cost data by place of service, the data showed that overall Member costs in the twelve months before and after enrollment decreased by 17.6%, with costs decreasing by 35.2% and 3.2% for CHMC and HCLA, respectively. The average costs per Member before and after enrollment for the twelve months were \$5,754.99 and \$4,739.38, respectively (Tables 3, 4, 5). This data shows that Samaritan Members were seeking more preventive care within clinic services and less ED care, totaling cost savings for the health care system.

TABLE 3: CHMC + HCLA costs stratified by department for twelve months before and after enrollment

| CHMC + HCLA | Before enrollment | After enrollment | Percent Change in 12 Months |
|------------------------------|----------------------|---------------------|-----------------------------|
| Emergency department | \$136,764.35 | \$126,371.48 | -7.6% |
| On Campus- Op Hospital | \$20,311.22 | \$19,901.68 | -2.0% |
| Clinic And Specialist Visits | \$277,254.06 | \$301,945.36 | 8.9% |
| Inpatient | \$302,826.36 | \$125,953.43 | -58.4% |
| Nursing Facility | \$9,173.98 | \$18,313.46 | 99.6% |
| Urgent Care | \$707.55 | \$869.76 | 22.9% |
| 2 Lab | \$3,382.05 | \$1,812.80 | -46.4% |
| ESRD Facility | \$32,258.40 | \$49,387.60 | 53.1% |
| TOTALS | \$782,677.97 | \$644,555.57 | -17.6% |
| Average Cost Per Member | \$5,754.99 | \$4,739.38 | |

TABLE 4: CHMC costs stratified by department for twelve months before and after enrollment

| СНМС | Before enrollment | After enrollment | Percent Change in 12 Months |
|---|-------------------------|-------------------------|-----------------------------|
| Emergency department Average Cost Per Member In ED | \$78,725.39 \$578.86 | \$77,158.40 \$567.34 | -2.0% |
| On Campus- Op Hospital | \$333.85 | \$533.87 | 59.9% |
| Clinic And Specialist Visits | \$54,862.84 | \$57,800.45 | 5.4% |
| Inpatient | \$209,947.42 | \$76,083.14 | -63.8% |
| Nursing Facility | \$8,970.00 | \$16,905.00 | 88.5% |
| TOTALS | \$353,418.36 | \$229,048.20 | -35.2% |
| Average Cost Per Member | \$2,598.66 | \$1,684.18 | |

TABLE 5: HCLA costs stratified by department for twelve months before and after enrollment

| HCLA | Before enrollment | After enrollment | Percent Change in 12 Months |
|---|-------------------------|-------------------------|-----------------------------|
| Emergency department Average Cost Per Member In ED | \$58,038.96 \$426.76 | \$49,213.08 \$361.86 | -15.2% |
| On Campus- Op Hospital | \$19,977.37 | \$19,367.81 | -3.1% |
| Clinic And Specialist Visits | \$222,391.22 | \$244,144.91 | 9.8% |
| Inpatient | \$92,878.94 | \$49,870.29 | -46.3% |
| Nursing Facility | \$203.98 | \$1,408.46 | 590.5% |
| Urgent Care | \$707.55 | \$869.76 | 22.9% |
| Lab | \$3,382.05 | \$1,812.80 | -46.4% |
| ESRD Facility | \$32,258.40 | \$49,387.60 | 53.1% |
| TOTALS | \$430,265.23 | \$416,436.57 | -3.2% |
| Average Cost Per Member | \$3,163.71 | \$3,062.03 | |

Overall, this data appears to show that Samaritan Membership brought down clinical care costs overall. Some specialty costs increased in terms of the overall costs of services per Member. However, Members were accessing needed services after Samaritan enrollment, which can be seen as preventive and beneficial to their long-term health outcomes. For example, colonoscopies are preventive and can be more expensive than some general services but are only needed every five to ten years. Although some cost savings appear modest when combined with prevention services, they could signal a **considerable financial difference** when scaled to more people and over time with Members getting their health needs addressed.

Member overall health care costs

The comparative analysis aimed to evaluate the effectiveness of Samaritan in reducing the overall cost of Members' health care. The analysis matched Members with people like them in terms of health care utilization and other characteristics around health status and demographics. This analysis showed that Members had significantly lower average health care costs per person for the year following enrollment (M = 44,733.15) than did the Comparison group for the same period (M = 10,213.82).

| | Mean | SD | Relative difference | Significance |
|--|-------------|-------------|---|----------------------------|
| Comparative Analysis | | | | |
| Average Samaritan Member Costs per person post-enrollment (2023) | \$4,733.15 | \$7,309.26 | Samaritan members had | t(678) = 2.12, p = 0.03 |
| Average Comparison group per person (2023) | \$10,213.82 | \$29,798.15 | 54% lower average health care costs than the comparison group | |

There was an average of \$5,480.67 cost savings per person for the year following enrollment, which equates to approximately 54% lower average health care cost for Samaritan Members than the comparison group. These costs could also improve over time, and the utilization and cost data would likely also improve over time with regular access to preventive services.



Members were satisfied with their experience participating in the Samaritan program.

Members heard about Samaritan from either their care managers or from someone else in their clinic, and their motivations to join were predominantly for encouragement, goal-setting, and financial support. Results from the 18 Member interviews revealed consistent satisfaction and appreciation of the program. Of the 13 Members who provided a specific satisfaction rating, all but one gave the program 10/10; the outlier still rated it 8/10.

Reasons cited for this high satisfaction included the **reduced isolation** from messages of encouragement, **quality of life** improvements from received funds, improvements to **physical and mental health**, and a greater sense of **trust** in the community and community services. Some Members described feeling supported spiritually through some of the messages they received.

Many Members gave positive feedback about their **care managers**. They reported receiving help with referrals and reminders for appointments and enjoying the supportive relationship. They said having someone check in on them felt good, which was a new experience for some.

I first thought Samaritan was scary and unbelievable, like is this really happening? Really what it's supposed to be? It was something new so I didn't know how to grasp it. They told me they're going to give me reminders for my appointments and medications, nobody ever does that for me before. It is amazing. 11

- Member

Members also explained reasons for **disengagement** with Samaritan: needing to focus on other life responsibilities (like employment and housing); not clearly understanding the program's benefits (e.g., being concerned they would have to pay back the money; and not having an established relationship with a care manager or health center. Patients with these circumstances struggled more to engage long-term. Some of the reported experience **detractors** included challenges with technology (confusion related to funds), inconsistent interactions with care managers or frequently changing care managers, and the brevity of their allowed membership duration.

Half the Members interviewed were unclear about whether they were still active in the program or if they had graduated. Several said that they would have liked a longer membership in the program, and many reported feeling a sense of loss specific to the cessation of messages of encouragement post-graduation.

Member suggestions for improvement

Members also offered a few ideas for improving Samaritan. One Member suggested that donors could choose to identify themselves when they donate. This deanonymization would be helpful because the Member might already be conversing with them and want to thank them. Another Member suggested that Samaritan could offer education on budgeting and that stores could give discounts to Samaritan debit cardholders. A care manager also received a request from a Member to be able to update their own stories in the app.

SUMMARY AND CONSIDERATIONS

This evaluation shows some clear benefits of the Samaritan program for Members. Financially, Samaritan provides for tangible financial needs, uniquely identified by each participant, that keep cars running, lights on, and food accessible. Even if the causes of homelessness are multifaceted, research shows that people experiencing homelessness in California believe that additional income, even shallow subsidies, could have prevented their homelessness. In interviews, members noted that financial incentives were the most beneficial aspect of the Samaritan program. Socially, Samaritan reduces Members' social isolation through enhanced care manager relationships and community support. Finally, Samaritan is connecting patients to health care in significantly more cost-effective ways, with Samaritan patients decreasing their emergency department use, using facilities they were capitated to, and significantly increasing their use of clinic and specialty services. Overall, the Samaritan program improved the quality of care for patients by making use of preventive care and showing an overall increase in HEDIS compliance scores, which signals a decrease in care gaps.

Samaritan's continuous improvement mindset during this pilot phase allowed their team to apply feedback throughout the course of the evaluation. The following considerations are offered to inform the future implementation of Samaritan and similar platforms and partnerships:

- 1. Consider how to expand eligibility criteria to reach a greater number of patients. When program eligibility is only for patients assigned to a single health plan, health centers may struggle to implement the program because they experience a different workflow for patients with different coverage. That difficulty prevents all patients from benefiting equitably from the program. In some communities, accomplishing more equitable participation may require a community-based solution with collaboration from multiple health plans interested in offering a consistent benefit across payers. If such collaboration is not feasible, health centers may require support from other organizations to manage eligibility and recruitment and ensure they are reaching eligible patients.
- 2. Identify which population is most ready to engage and benefit from the new platform/technology during the pilot phase. While new platforms and technology often aim to reach patients with the highest need, it can be difficult to effectively engage them if they are not already engaged with the health care system. Reaching patients who have high needs and who have some foundational relationships with the health care system may result in balanced engagement during the pilot phase. Once the technology and program is implemented, phase in patients with higher-level needs.

- 3. Determine the most appropriate partners and setting for implementation. Implementing Samaritan in an acute care setting was challenging because of the eligibility process. The care managers at the health centers successfully played a critical role in establishing relationships and mechanisms for ongoing engagement with patients. For the future implementation of Samaritan or other platforms, consider the ideal setting, systems, and structures.
- 4. Ensure participating health centers have adequately allocated staff and resources for program implementation.

 Successful implementation of new technology or programs requires the health center to allocate staffing and resources.

 Companies should support health centers in identifying appropriate staffing for implementation and developing workflows that articulate how the new platform or technology will be integrated into existing work.
- 5. Provide training and support to implementation partners. Samaritan's training and technical assistance to health centers and other implementation partners was perceived as critical to the platform's successful implementation. Similar levels of support will be needed in future implementation efforts.
- 6. Consider what support patients will need to engage with the new platform/technology. Samaritan did not require patients to engage directly with the platform. If they were not able to do so, they could interact with it through their care manager. However, they did require additional support to use the debit cards and access the financial benefits of the program. Companies and implementation partners should ensure that adequate support is available to allow patients to benefit from participation fully. This care includes ensuring patients are aware of all of the different types of support that are available to them. For Samaritan, this included ensuring awareness of the financial benefits as well as the social support and community donation requests.

LIMITATIONS

The analyses in this report were limited by several factors. First, Samaritan started intentionally enrolling patients who were engaged with ECM six months after the pilot began. As such, it was not possible to untangle the impact of ECM and Samaritan Membership on Member engagement, satisfaction, and outcomes.

Second, the sample of Members and care managers who consented to be interviewed is possibly biased toward those who were more engaged. This selection could result in a positive response bias if those who were less engaged or satisfied with Samaritan were underrepresented in this evaluation.

Third, the available data did not allow for comparing financial incentives to health outcomes to perform a dose-response analysis. Ideally, care managers would log why they offered a specific amount, or guidelines would be established to offer specific amounts for specific action steps. When they were changed, care managers would specify why.

Fourth, in the SDOH scores, the original assessment had eight domains that were later collapsed into four domains in August 2023. For this analysis, relevant scores were included from the previous eight domains and compared across time. Additionally, SDoH assessments, being self-reports, are susceptible to the influence of various personal and contextual factors. This finding highlights the importance of interpreting the data with caution, considering these external factors. SDoH assessments were consistently offered by care managers but not consistently taken by individual Members, resulting in missing assessments, meaning that the results do not reflect the entire Member population.

Finally, there were a few limitations in the comparison analyses, especially since the data assumed that the trends for the use of capitated services and cost savings would increase over time.

APPENDIX A: EVALUATION METHODS

The report details data collection (qualitative and quantitative) findings from April 1, 2023, until February 29, 2024. The evaluation contains two components:

- 1. Qualitative analysis through interviews with key leaders, care managers, and Members discussing program implementation, Member engagement and impact, staff experience, and workflow integration.
- 2. Quantitative analysis with MedPOINT with data about patient/Member engagement with Samaritan, ED utilization, cost, and chronic condition management. Members included in this analysis had the following criteria:
 - Enrolled in Samaritan from April 15, 2022, to February 29, 2024
 - Eligible for twelve months pre-Samaritan enrollment
 - Eligible for twelve months post-Samaritan enrollment
 - Capitated to HCLA/CHMC
 - Not termed or disenrolled from the Samaritan program

The tables below detail evaluation questions, each data collection method, what each method entailed, who participated, and how the data were analyzed. After analyzing each data source, we looked at results across methods to triangulate data and identify key findings. While some key findings rely more heavily on a single data source, the evaluation team derived all from a mixed-methods, thematic analysis.

TABLE 6: EVALUATION QUESTIONS

| Topic | Questions |
|--|---|
| 1. Health care system implementation/ integration: | How has Samaritan been integrated/ implemented into participating center/ hospital care management workflows? What have been the facilitators and barriers? How are these compared across different centers? How does the app support existing care management efforts? |
| 2. Care manager experience: | What are the care managers/health center experience with care management combined with Samaritan and/or compared with other programs? |

TABLE 6: EVALUATION QUESTIONS (CONTINUED)

| Topic | Questions |
|--------------------------------------|--|
| 3. Member experience: | What is the Member's experience in participating with the platform? Has participating with Samaritan as a Member improved their confidence, self-efficacy, and social connections? |
| 4. Platform engagement/ utilization: | To what extent are patients and care managers engaging with Samaritan? To what extent does Samaritan facilitate improved Member involvement in care management? |
| 5. SDOH outcomes: | What is the impact of Samaritan on social needs and financial support? |
| 6. Health care system outcomes: | What is the impact of Samaritan on PC/ED utilization, cost, and management of chronic conditions? Which care gaps are being closed? Does Samaritan facilitate more appropriate health services utilization (decreasing ED use/increasing preventative care)? |

TABLE 7: METHODS AND ANALYSIS DESCRIPTION

| Туре | Description and Analysis |
|---------------------------------|--|
| Qualitative data: interviews | Key leader and care manager interviews were conducted at two points in time. The first round took place in August 2023, and the second round was completed in early Spring 2024 and expanded further on findings and questions that emerged from the interim report. The first group of interviews (15 key leaders, 7 Care Managers) provided qualitative data on the implementation and integration of Samaritan into health care settings, and its perceived impacts at the organizational, care manager and Member levels. The second round acted as post-interviews to the pilot period for two key leaders with some additional questions and as an additional interview for one more care manager. |
| | These interviews were generally conducted with one person at a time (occasionally a small group up to four), and with those familiar with Samaritan. The interview protocol asked about a variety of topics related to Samaritan implementation, integration, and early experiences: • Initial expectations and attempts of the program • Implementation and integration facilitators and barriers • Perceived experiences for health care organizations, care managers, and Members • Advice for others interested in implementing the program • Additional post-pilot questions for key leaders included follow-up on lessons learned and changes they saw from the first interview |
| | The first six individual Member interviews were conducted in October-November 2023. Outreach was completed through care managers, through Samaritan, and through follow-up texting by CCHE. After completing an informed consent, Members were contacted to schedule an interview time. The second round of twelve individual Member interviews were conducted January - February 2024. |
| | Analysis: Interviews were digitally recorded and transcribed. CCHE conducted a thematic analysis of the transcripts. Codes were developed a priori, based on the interview protocol, and empirically, based on emergent themes. |

TABLE 7: METHODS AND ANALYSIS DESCRIPTION (CONTINUED)

| Туре | Description and Analysis |
|------------------------|---|
| Cost data | HCLA claims were from the Integrated Physician's Association (IPA), and claims under CHMC came from them directly. |
| | MedPOINT Management submitted this claims data for the following cost metrics for 137 Members twelve months before and after enrollment. |
| | Analysis: Descriptive statistics and t-tests were used in this report. |
| | CCHE reviewed data, conducted basic validation checks to identify quality issues, and worked with teams to revise erroneous values. Data were excluded when there were data quality concerns. Member data was also excluded in Members termed or no longer a part of the Samaritan program. |
| PC/ED utilization data | MedPOINT Management submitted deidentified data for utilization at CHMC Facilities before and after Samaritan enrollment for 137 Samaritan Members. |
| | Descriptive statistics and t-tests were used in this report. |
| | CCHE reviewed data and conducted basic validation checks to identify quality issues and worked with teams to revise erroneous values as needed. Data were excluded when there were data quality concerns, such as claim redundancies. |

TABLE 7: METHODS AND ANALYSIS DESCRIPTION (CONTINUED)

| Type | Description and Analysis |
|---------------------------------------|---|
| Comparative Analysis | 137 Samaritan Members were included in the final list. |
| Compliance scores for HEDIS care gaps | MedPOINT Management submitted deidentified compliance scores that the health system assigned to each Member to understand whether Members closed HEDIS (Healthcare Effectiveness Data and Information Set) care gaps, for each Samaritan Member and the Comparison population. Data was used in the Comparison analysis and t-tests were run to compare the scores across years 2022 and 2023 for significant differences in performance. |
| Samaritan data | Samaritan submitted deidentified data for 137 Members on financial transactions made to Members, donations from the community, action steps (social need identification), and SDoH assessments. Descriptive statistics and t-tests were used in this report. |

TABLE 8: PARTICIPATING ORGANIZATIONS AND INTERVIEWEES

| Health Partner | Key Leaders (N=17) | Care Man- agers (N= 8) | Members (N=18) | Relationship |
|-------------------------------|--------------------------|------------------------------|-------------------|--|
| HCLA/CHMC | X | | | HCLA is the IPA. Has a capitated relationship with CHMC to provide care to HCLA members under the participating Health Plans. (Anthem BlueCross and HealthNet). HCLA contracts with MedPOINT for MSO services. |
| | | | | CHMC is the contracted, capitated hospital in HCLA's network. |
| Samaritan | X | | | |
| CommonSpirit | Х | | | CommonSpirit is the umbrella hospital brand/company in which CHMC is part of. |
| Southside Coalition (ECM) | Х | | | Southside Coalition of Community Health Centers is a group of HCLA health centers in South Los Angeles that formed to collaboratively support the needs of the historically underserved communities of South LA. All the health centers participating in Samaritan are also Southside Coalition members. |
| MedPOINT Management | X | | | MSO providing administrative support to the HCLA IPA, HCs, and CHMC. |
| St. Johns Community Health | Х | Х | Х | St. John's Community Health is a Health Center member of HCLA IPA. Is a member of Southside Coalition. |
| To Help Everyone (T.H.E.) | Х | Х | Х | T.H.E is a Health Center member of HCLA IPA. Is a member of Southside Coalition. |
| Eisner | Х | Х | Х | Eisner Health is a Health Center member of HCLA IPA. Is a member of Southside Coalition. |
| Venice Family Clinic (VFC) | Х | Х | | VFC is a Health Center member of HCLA IPA. Is a member of Southside Coalition. |
| JWCH | Х | | | JWCH is a Health Center member of HCLA IPA. Is a member of Southside Coalition. |
| UMMA | | | Х | UMMA is a Health Center member of HCLA IPA. Is a member of Southside Coalition. |

TABLE 9: MEMBER DEMOGRAPHIC INFORMATION (USED IN QUANTITATIVE ANALYSES)

Enrolled April 15, 2022, to February 29, 2024 (n=137)

| Median age | 51 years | |
|----------------|--------------------------------------|--------|
| Average age | 50 years | |
| Age range | 19 – 91 years | |
| | | |
| Sex at birth | Male | 30.2 % |
| | Female | 69.9 % |
| | | |
| Languages | English | 65.4% |
| | Spanish 32.2% | |
| | Other (inc. Tagalog, Korean, French) | 2.4% |
| | | |
| Health centers | Eisner Health | 26 |
| | Venice Family Clinic | 6 |
| | St John's Community Health | 77 |
| | To Help Everyone | 15 |
| | UMMA | 1 |
| | | |
| | HCLA / CHMC (hospital) | 12 |

TABLE 9: MEMBER DEMOGRAPHIC INFORMATION (USED IN QUANTITATIVE ANALYSES) (CONTINUED)

Enrolled April 15, 2022, to February 29, 2024 (n=137)

| Chronic conditions identified | Member with Diabetes | 86 |
|-------------------------------|---------------------------------|----|
| | Transplant evaluations/surgery | 3 |
| | Cancer/Oncology | 4 |
| | Renal Disease status | 4 |
| | Homelessness | 2 |
| | Other (including CKD, HIV, CHF) | 4 |

TABLE 10: DEMOGRAPHIC DATA OF MEMBERS INTERVIEWED (N=18)

| Ages | Self-reported Race/ethnicity | Total bonus amounts they received before interview: |
|----------------------------|-------------------------------------|---|
| Range: 29-71 Median: 55 | Hispanic: 7 Black: 4 White: 1 | Range: \$135 - \$2929 Average: \$1,138.89 |

APPENDIX B: LITERATURE REVIEW

The incentive intervention style Samaritan employs is called contingency management (CM). Most contingency management studies have concentrated on reducing substance use and do not offer relevant comparisons for this program. CCHE conducted a literature review looking for studies published on programs like Samaritan, which facilitates the transfer of money and support from strangers to people experiencing homelessness (PEH). While none were found, there have been **several studies on other health-promoting technological interventions** that communicated mixed results. For example:

- Access: Studies of PEH's interactions with technology revealed that although most PEH have access to phones, practical
 implications such as expensive upkeep, loss of phones, and low digital competency among older individuals pose
 challenges.
- Trust: There is a significant lack of trust among PEH when it comes to sharing personal information through technology.
 However, a systematic review of ehealth interventions revealed that participants generally found them to be convenient, informative, and valuable.
- *Clinical outcomes:* A study on the effects of a phone intervention on PEH demonstrated feasibility and high rates of satisfaction, although there was no significant change in clinical outcomes.⁷

A primary component of Samaritan is **financial support provided to Members when they complete action steps.** Studies have primarily focused on PEH completing pro-social and health-promoting goals. For example:

- Adherence: Two studies examining the provision of financial incentives to encourage smoking cessation among PEH found short-term benefits but no evidence for longer-term cessation. Similarly, a study providing incentives for participation in case management services found no difference in outcomes at the six-month mark.⁹
- Follow-up: In a randomized controlled trial (RCT) focusing on TB treatment in PEH, the percentage of individuals who completed treatment was similar between the incentive and non-incentive groups. However, those who received incentives required less follow-up to complete treatment.¹⁰

While a systematic review of 29 studies suggested that financial incentives hold promise for various health outcomes among PEH, conflicting findings and adverse consequences were also reported.¹¹

Another component of the Samaritan platform is the **ability for strangers to send messages of encouragement to Members**. While no studies specifically focus on the social support of strangers for PEH, related studies offer insights into the benefits of social connections. For example:

- Happiness: Interacting with strangers can be a positive form of social connection, as most interactions with strangers are generally positive and beneficial. Engaging in minimal positive social interactions with strangers has been associated with increased happiness and subjective well-being, promoting feelings of social connection and appreciation.
- Health: Social isolation leads to increased morbidity and mortality, increasing the risk of suicide, premature death, and various health conditions, including Type 2 diabetes and respiratory illnesses. A systematic review of 29 studies indicated that the lack of social support and limited social networks contribute to, or are associated with, the chronicity of homelessness. A study involving 544 PEH revealed that perceived financial, emotional, and instrumental support were all associated with better health outcomes and a lower likelihood of victimization.
- Housing: Individuals with strong social ties are 64% less likely to experience homelessness. One study found that ties to relatives were the most important in reducing homelessness, followed by participation in religious services and ties to friends. Without ties, social isolation persists even after PEH attains housing.

APPENDIX C: LOGIC MODEL

ACTIVITES

Identify members/patients who have been high utilizers of emergency department and/or are experiencing homelessness/housing insecurity

Eligible members are enrolled in Samaritan platform and create an account and/or public profile

Community members (Samaritans) provide financial support & messages of encouragement to members Care managers use platform to understand members' social needs and identify action steps to address those needs

Members receive support to address social needs from care managers and financial and motivational incentives from the community

SHORT TERM OUTCOMES

Members

- High engagement in & satisfaction with using the platform
- Increased member engagement in care management to support social needs
- Increased member confidence in ability to address their social needs
- Increased financial & social support
- Action steps completed/ progress towards addressing social & health care needs

Care managers

- Satisfaction with using the platform & how it supports their work
- High engagement in utilizing the platform
- Improved retention of patients in care management services

INTERMEDIATE OUTCOMES

Members

- High engagement in & satisfaction with using the platform
- Increased member engagement in care management to support social needs
- Increased member confidence in ability to address their social needs
- Increased financial & social support
- Action steps completed/ progress towards addressing social & health care needs

Care managers

- Satisfaction with using the platform & how it supports their work
- High engagement in utilizing the platform
- Improved retention of patients in care management services

LONG TERM OUTCOMES

Members

- High engagement in & satisfaction with using the platform
- Increased member engagement in care management to support social needs
- Increased member confidence in ability to address their social needs
- Increased financial & social support
- Action steps completed/ progress towards addressing social & health care needs

Care managers

- Satisfaction with using the platform & how it supports their work
- High engagement in utilizing the platform
- Improved retention of patients in care management services

Impacts: Improved health and well-being of people experiencing homelessness (PEH) & decreased costs to the health care system

CITATIONS

- ¹ Kushel, M and Moore, T. California Statewide Study of People Experiencing Homelessness (CASPEH). Toward a New Understanding, June 2023. Available: https://homelessness.ucsf.edu/sites/default/files/2023-06/CASPEH_Report_62023.pdf
- ² Kushel, M and Moore, T. California Statewide Study of People Experiencing Homelessness (CASPEH). Toward a New Understanding, June 2023. Available: https://homelessness.ucsf.edu/sites/default/files/2023-06/CASPEH Report 62023.pdf
- ³ Kushel, M and Moore, T. California Statewide Study of People Experiencing Homelessness (CASPEH). Toward a New Understanding, June 2023. Available: https://homelessness.ucsf.edu/sites/default/files/2023-06/CASPEH Report 62023.pdf
- ⁴ Kushel, M and Moore, T. California Statewide Study of People Experiencing Homelessness (CASPEH). Toward a New Understanding, June 2023. Available: https://homelessness.ucsf.edu/sites/default/files/2023-06/CASPEH Report 62023.pdf
- ⁵ Heaslip V, Richer S, Simkhada B, Dogan H, Green S. Use of Technology to Promote Health and Wellbeing of People Who Are Homeless: A Systematic Review. International Journal of Environmental Research and Public Health. 2021; 18(13):6845. https://doi.org/10.3390/ijerph18136845
- ⁶ Polillo, A., Gran-Ruaz, S., Sylvestre, J., & Kerman, N. (2021). The use of eHealth interventions among persons experiencing homelessness: A systematic review. Digital Health, 7, 2055207620987066. https://doi.org/10.1177/2055207620987066
- ⁷ Schueller, S. M., Glover, A. C., Rufa, A. K., Dowdle, C. L., Gross, G. D., Karnik, N. S., & Zalta, A. K. (2019). A mobile phone-based intervention to improve mental health among homeless young adults: Pilot feasibility trial. JMIR MHealth and UHealth, 7(7), e12347. https://doi.org/10.2196/12347
- ⁸ Baggett, T. P., Chang, Y., Yaqubi, A., McGlave, C., Higgins, S. T., & Rigotti, N. A. (2018). Financial incentives for smoking abstinence in homeless smokers: A pilot randomized controlled trial. Nicotine & Tobacco Research: Official Journal of the Society for Research on Nicotine and Tobacco, 20(12), 1442–1450. https://doi.org/10.1093/ntr/ntx178
- Businelle, M. S., Kendzor, D. E., Kesh, A., Cuate, E. L., Poonawalla, I. B., Reitzel, L. R., Okuyemi, K. S., & Wetter, D. W. (2014). Small financial incentives increase smoking cessation in homeless smokers: a pilot study. Addictive Behaviors, 39(3), 717–720. https://doi.org/10.1016/j.addbeh.2013.11.017
- ⁹ Kerman, N., Nisenbaum, R., Durbin, A., Wang, R., Kozloff, N., Hwang, S. W., & Stergiopoulos, V. (2023). A pragmatic randomized controlled trial of financial incentives in case management for homeless adults with mental illness. Psychiatric Services (Washington, DC), appips20220392. https://doi.org/10.1176/appi.ps.20220392
- ¹⁰ Tulsky, J. P., Hahn, J. A., Long, H. L., Chambers, D. B., Robertson, M. J., Chesney, M. A., & Moss, A. R. (2004). Can the poor adhere? Incentives for adherence to T.B. prevention in homeless adults. The International Journal of Tuberculosis and Lung Disease: The Official Journal of the International Union against Tuberculosis and Lung Disease, 8(1), 83–91. https://www.ingentaconnect.com/content/iuatld/ijtld/2004/00000008/00000001/art00012
 ¹¹ Hollenberg, E., Bani-Fatemi, A., Durbin, A., Castle, D., Kozloff, N., Ziegler, C., & Stergiopoulos, V. (2022). Using financial incentives to improve health service engagement and outcomes of adults experiencing homelessness: A scoping review of the literature. Health & Social Care in the Community, 30(6), e3406–e3434. https://doi.org/10.1111/hsc.13944
- ¹² Van Lange, P. A. M., & Columbus, S. (2021). Vitamin S: Why is social contact, even with strangers, so important to wellbeing? Current Directions in Psychological Science, 30(3), 267–273. https://doi.org/10.1177/09637214211002538
- ¹³ Gunaydin, G., Oztekin, H., Karabulut, D. H., & Salman-Engin, S. (2021). Minimal social interactions with strangers predict greater subjective wellbeing. Journal of Happiness Studies, 22(4), 1839–1853. https://doi.org/10.1007/s10902-020-00298-6

¹⁴ Holt-Lunstad, J. (2021). The Major Health Implications of Social Connection. Current Directions in Psychological Science, 30(3), 251–259. https://doi.org/10.1177/0963721421999630

¹⁵ Hwang, S. W., Kirst, M. J., Chiu, S., Tolomiczenko, G., Kiss, A., Cowan, L., & Levinson, W. (2009). Multidimensional social support and the health of homeless individuals. Journal of Urban Health: Bulletin of the New York Academy of Medicine, 86(5), 791–803. https://doi.org/10.1007/s11524-009-9388-x

¹⁶ Corinth, K., & Rossi-de Vries, C. (2018). Social ties and the incidence of homelessness. Housing Policy Debate, 28(4), 592–608. https://doi.org/10.10 80/10511482.2018.1425891

¹⁷ Cummings, C., Lei, Q., Hochberg, L., Hones, V., & Brown, M. (2022). Social support and networks among people experiencing chronic homelessness: A systematic review. The American Journal of Orthopsychiatry, 92(3), 349–363. https://doi.org/10.1037/ort0000616