

Final Evaluation Report
Virtual Communities of Care
LA Net
Prepared by LA Net, June 8, 2021

Summary statement

The Virtual Communities of Care (VCC) project assessed the feasibility and value of the VCC model for increasing PCPs' capacity to address the social determinant (SDOH) needs of their senior patients during the COVID crisis.

The VCC model uses a SDOH screening and population management platform and embedded virtual Community Health Advisors on PCP care teams to expand PCPs' ability to screen, detect and respond to SDOH needs of their senior patients.

Based on the results of this proof of concept project, we conclude that the VCC intervention is both a useful and cost-effective method for increasing PCP's ability to support SDOH needs of both senior patients and SPDs during the COVID crisis but also post-COVID. Response rate and data transfer between CHA and PCP are the two primary barriers to successful scale and spread, which can be easily addressed through basic patient education by the PCP, and by simple modifications to the PatientToc SDOH platform or similar health information technology that is readily available to PCPs.

Screening. The VCC intervention was conducted from January 5th through April 9th. Two thousand one hundred and sixty-four (2164) patients from FWMC/MF were contacted. Twenty-one percent (448) of patients contacted responded. Twelve percent (268) completed the SDOH screener - 30% (136) by responding to a texted screener (SMS) and 29% (132) by responding to outreach phone calls by the embedded CHA. Average time for a patient to complete the SDOH screener via SMS was three (3) minutes, by phone was 17-20 minutes. The addition of automated screening via SMS to traditional outreach calls increased response rate by 100%, allowing us to triage these patients and focus CHA time on patients with highest need levels.

Fifty-four percent (140) of responses to the SDOH screener came from senior patients who were 60 years or older. Forty-six percent (132) came from patients 59 and younger who were designated SPD (seniors and persons with disabilities) or identified as high risk by the PCP. This second group (SPD and high risk) was added to the project at the request of the PCP and in consultation with the project officer.

SDOH needs identified. The most frequently reported SDOH need among seniors was lack of access to technology (tablet, etc.) needed to participate in virtual services (28%/40), followed by loneliness (14%/21), unsafe housing (8%/11) and housing insecurity (7%/10). Interestingly, rates of SDOH needs overall were significantly higher among the SPD population. Most frequent needs were loneliness and social isolation (28%/31) followed by difficulty managing health during COVID (18%/20), and depression (19%/21).

Twenty percent of seniors who responded were designated as "high SDOH need" based on the items they endorsed on the screener. A significantly higher proportion of SPD patients (45%) met this criteria. High need was determined based on responder's report of urgent SDOH needs including food insecurity, housing insecurity, abuse, extreme social isolation or depression, or difficulty managing their health COVID.

Services delivered. Over the course of the 3-month intervention, CHAs conducted 1550 outreach calls to senior and SPD responders. They provided direct support to 51% (74) of the seniors, provided service navigation support to 74 and 88% of seniors who met criteria for "high SDOH need." Seniors were connected to 32 different community based or governmental support programs based on the needs they reported. CHAs also provided support to an additional 70 SPD and PCP-nominated high risk patients.

Evaluation results. The VCC had a 21% "engagement reach" based on operational phone numbers for 2164 patients and a 12% "benefit reach" based on the number of total reachable patients supported. While this falls below our desired reach of 75-90%, we expect that response rate and reach can be significantly increased by having the PCP inform patients about the VCC intervention as an extension of routine primary care, and incorporate other methods of screening as PCPs return to in-person visits post-COVID. An earlier project conducted by LA Net and Florence Western obtained a 95% response

rate and reach with senior patients collecting SDOH screeners on PatientToc's multi-lingual tablets at point of care.

Both patient and provider satisfaction with VCC was high with 99% of responding patients reporting completion of the screener was "easy" and 84% indicating they "liked their MD to reach out this way." Similarly, the FWMC/MF clinical team rated the VCC intervention a "5" (very helpful) on a 1-5 scale for the impact of the VCC on their ability to detect and support patient SDOH needs, and a "5" (very likely) on both their desire to continue the VCC intervention at their practice and to recommend it to other PCPs.

Estimated costs to implement VCC in small PCP practices were moderate and are estimated to be \$115 per successfully screened patient and \$356 per patient for virtual service navigation. These per patient costs reflect the current relatively low response rate and will decline as patient education is introduced by the PCP to increase response rate and call lists are improved.

Challenges encountered included the low response rate to SMS and phoned screeners and outreach driven by inaccurate contact information on patient lists generated by the EHR (51%), patient unfamiliarity with the VCC, and inability to tailor screeners to patient language due to limitations of data stored by the PCPs' EHR. An additional challenge was transfer of data about patients between CHA and PCP incorporation of these data into the patient's medical record for PCP use at point of care.

These challenges can be addressed by the PCP educating patients about the VCC, improving the accuracy of contact information, and improvements capacity to extract preferred language from the EHR. Similarly, transfer of patient information to the patient's record in the PCPs' EHR can be through development of closed-loop referral capacity between the PatientToc SDOH platform and the PCPs' electronic health record, Office Ally. PatientToc currently has an API that allows data transfer of data collected via its multi-lingual tablets into Office Ally that can be modified during a future to enable this.

The project team included **Kevin Thomas, MD**, owner of Florence Western Medical Clinic located in South Los Angeles, and Medicina Familiar located in West Covina, participated as the Primary Care Provider partner (FWMC/MF). **Partners in Care**

Foundation (PICF) provided the Community Health Advisor (CHA) and supervision who was then "virtually" embedded at the FWMC/MF practices due to COVID restrictions. **LA Net Community Health Resource Network** served as the convening organization and provided the PatientToc SDOH screening and management platform. Dr. Lyndee Knox, Executive Director of LA Net served as the project director.

Video of PCP reflections on VCC and needs of seniors in his practice. In addition to this written summary, LA Net also created a short video of our PCP partner, Dr. Thomas', reflections on the Virtual Communities of Care intervention and needs of seniors in his practice. Click [here](https://vimeo.com/561114009) to view excerpts from the 12 minute video of this discussion. (<https://vimeo.com/561114009>)

Accounting of expenditures

100% of grant funds were expended. There were no changes to the proposed budget. See Appendix for line-item spreadsheet.

Lasting benefits of the project

Lasting benefits of the project include direct benefits to 268 senior and vulnerable patients who received support for SDOH needs during COVID. It also includes the knowledge generated about the use of virtual and embedded Community Health Advisors and SDOH population management platforms for expanding PCPs' capacity detect and support SDOH needs of seniors as part of routine patient care.

Attainment of goals and objectives

The goal of the project was to assess the potential value of the Virtual Communities of Care to Primary Care Providers for increasing their ability to address SDOH needs of their senior patients during COVID.

A detailed description of our progress towards each of our 3 project objectives is provided below:

Objective 1. Conduct virtual SDOH screening of 2250 low-income seniors via PatientToc.

Completed.

Patient list. Florence Western/Medicina Familiar provided names and numbers for 4403 senior and SPD patients to contact for SDOH screening and possible services through VCC. Of these, 2164 numbers (51%) were useable and able to be used for SDOH screening and outreach purposes.

Response rate. Twenty-one percent (448) of these patients responded to either a text or outreach call to complete SDOH screening. Sixty percent (268) of these completed the SDOH screener.

Of these, 145 (54%) of responders were seniors aged 60 or older and 122 (46%) were 59 or younger SPD patients. SPD patients were included in the project at the request of the PCP, Dr. Thomas, and in consultation with our Archstone Project Officer, Laura Rath.

Seniors were significantly more likely to complete SDOH screeners via phone call (75%) than SMS (25%). Younger SPD patients were significantly more likely to respond to screeners sent by SMS (85%) than to phone calls (15%).

Patients reporting urgent SDOH needs were significantly more likely to respond to the screener via SMS (83%)(67) vs. phone (17%)(14) compared to patients reporting less urgent or no needs ((36%)(66) by phone vs. 63% (113) by phone).

Table 1. Total Possible to Contact and Response Rate

	Total
Total patients PCP list	4403
Bounced	1007 (23%)
Unable to contact for other reasons	1232 (28%)

(Wrong number, disconnected, etc.)	
Total possible to contact	2164 (49%)
Total responding	448 (21%)
By SMS opt out	108/448 (24%)
By phone opt out	72/448 (16%)
Completed screener by SMS	136/448 (30%)
Completed screener by phone	132/448 (29%)
Screening response rate all methods, all respondents	268/2164 (12%)
Completing screener 60+	146/268 (54%)
-by SMS	36/146 (25%)
-by phone	110/146 (75%)
Total completing screener 59 or younger SPD	122/268 (46%)
-by SMS	104 (85%)
-by phone	18 (15%)

SDOH needs. The most frequently reported SDOH need among seniors was lack of access to a tablet or other means of participating in virtual services (28%/40), followed by loneliness (14%/21), unsafe housing (8%/11) and housing insecurity (7%/10).

Among the younger SPD population, loneliness and social isolation (28%/31) was the most frequently reported SDOH need, followed by difficulty managing health during COVID (18%/20), and depression (19%/21).

Of the 145 seniors who completed an SDOH screener, 20% (29) met criteria for “high SDOH need” based on the presence of one or more urgent SDOH needs defined as: food insecurity, housing insecurity, extreme financial distress, abuse, or inability to manage health during COVID.

A significantly higher percentage of younger SPD patients were classified as “high need” (45%) compared to the seniors.

The lower need rate among seniors vs the younger SPD population may reflect the already supportive relationship that Dr. Thomas and Florence Western/Medicina Familiar (FWMF) have with their seniors patients.

Based on both PCP and patient feedback, a strength of the senior patients was high levels of family support and engagement during COVID which may have served as a protective factor.

Table 2. SDOH needs

SDOH Need	% of seniors reporting need n=145 (60-104 yo)	% non-seniors reporting need n=110 (11-59 yo)	% total respondents reporting need n=255* (all combined)
Abuse	5 (3%)	13 (12%)	18 (7%)
Housing insecure	10 (7%)	23 (21%)	33 (13%)
Unsafe housing	11 (8%)	11 (10%)	22 (9%)
Food insecure	9 (6%)	11 (10%)	20 (8%)

Severe financial insecurity	8 (6%)	7 (6%)	15 (6%)
Utilities insecurity	8 (6%)	9 (8%)	17 (7%)
Difficulty managing health during COVID	6 (6%)	20 (18%)	26 (10%)
Loneliness	21 (14%)	31 (28%)	52 (20%)
Depression (Positive PhQ2)	4 (3%)	21 (19%)	25 (10%)
Digital divide	40 (28%)	5 (5%)	45 (18%)
Transportation for health	7 (5%)	6 (5%)	15 (6%)
Concerns about COVID safety	9 (6%)	5 (5%)	40 (15%)

*deviation from 268 total responses is the result of missing data on one of more items of the screener

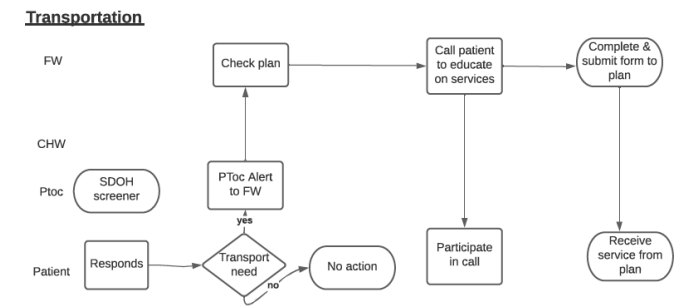
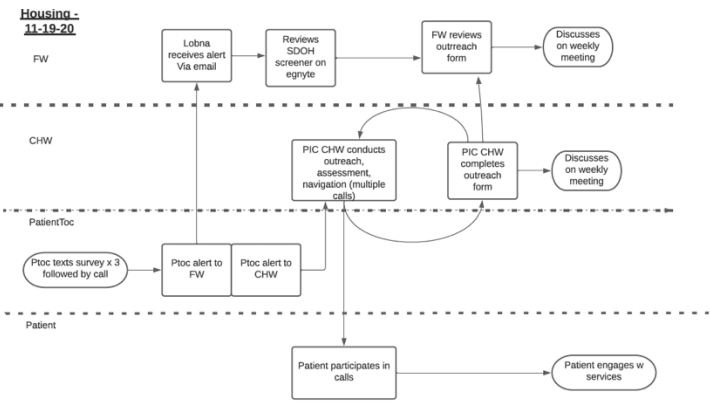
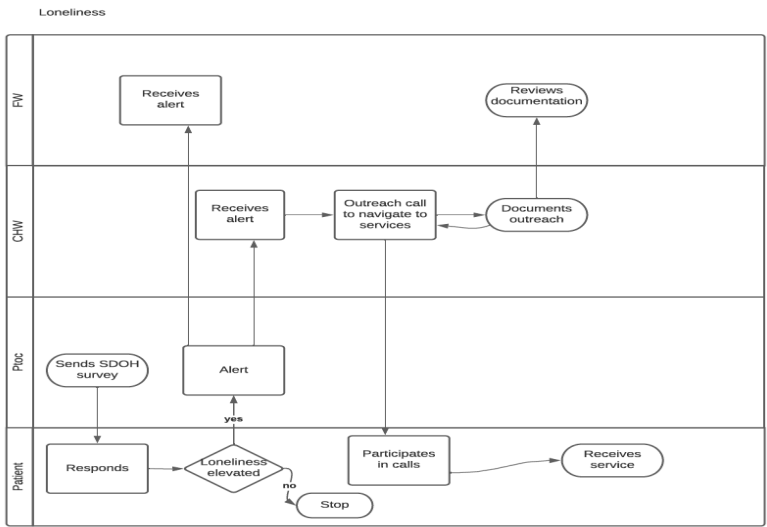
Objective 2. Conduct virtual outreach to seniors with urgent SDOH needs and connect them to supportive services via CHAs.

Completed.

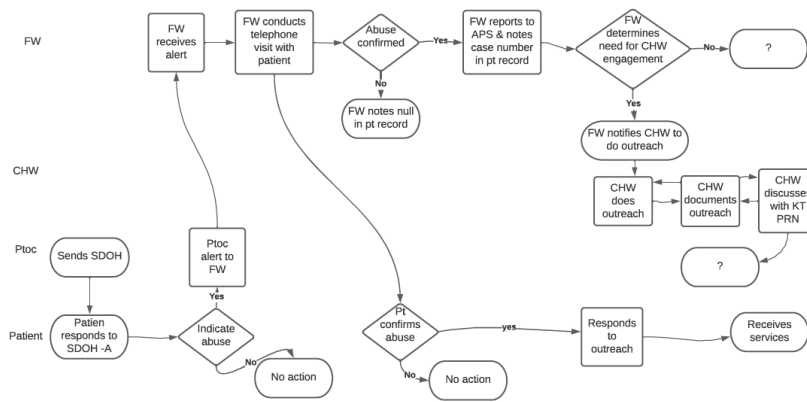
The VCC team developed detailed workflows to facilitate coordination between the PCP and the CHAs around SDOH screening results. The team designated the VCC care coordinator at the PCP as the lead for transportation to medical appointments, referral for behavioral health screening, abuse and support when patients reported symptoms of depression on the two PhQ2 items contained on the SDOH screener, and

issues with access to medications and medical supplies. The remaining issues were managed by the CHAs.

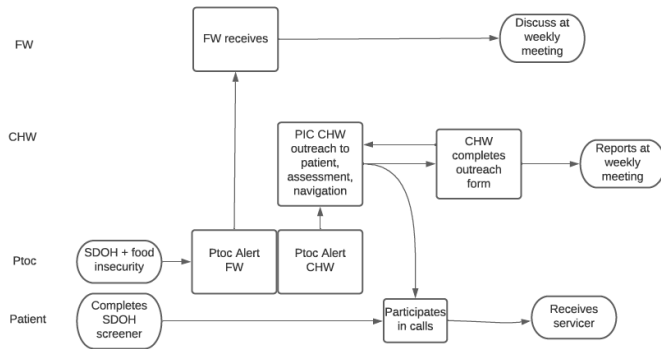
Figure 1. Examples of workflows developed to facilitate coordination between PCP and CHAs around SDOH response



Abuse



Food



Seventy-four (49%) the 145 seniors who responded to the screener and reported an SDOH need received support from a CHA. Responders were navigated to 34 different services ranging from CalFresh to IHSS support for in-home caregiving based on the needs they reported.

Eighty-eight percent (88%) of the subset of 29 seniors designated “high SDOH need” received CHA support and were navigated to services. Twenty-two percent (22%) could not be reached during the project period.

An unexpected finding from the outreach and service navigation was the number of patients needing help obtaining durable medical equipment (DME) needed for safety and falls prevention. Patients requested help with wheelchairs, walkers, ramps, shower stools, and similar items. The request was so frequent that it was added as an additional item on the CHA outreach form.

Table 3. Partial list of services utilized during project

1. CalFresh
2. SNAP
3. Housing support
4. Referral to the PCP for depression screening
5. Helping hands and PCP for access to DME
6. Adult protective services
7. 24partners homecare
8. Unemployment
9. MSSP and Edison utilities and appliance assistance program
10. On-line COVID vaccination scheduling
11. Senior chat line
12. Angel food
13. LA food project
14. DM education
15. LIHEAP
16. CARE
17. Navigating COVID rent relief
18. IHSS for in-home caregiver support
19. ACS helpline
20. MediCal
21. In home COVID testing via Helping Hands
22. Low cost google tablet program
23. Assistance in applying for low-income housing
24. ACCESS transportation
25. Direct intervention with landlords regarding safety issues in home and non-working appliances, heating and cooling
26. Meals on Wheels
27. Outreach to social security office for assistance with SSI check
28. Home Mod
29. Silverlake village apartment
30. Pro bono legal services
31. MOW
32. Urgent care for COVID testing

Objective 3. Evaluate the reach, impact and cost of *Virtual Communities of Care* to assess potential adoption of the model by health plans and PCPs to support low-income seniors during COVID.

Completed.

An evaluation was conducted of the VCC using a combination of surveys, key informant interviews and direct observation. The focus of the evaluation was on assessing the value of the VCC to primary care providers as a method of increasing their ability to detect and support SDOH needs in their senior (and SPD) patients, estimating costs and identifying lessons learned that can be used to improve the model and support future scale and spread.

Reach. The VCC had an “engagement reach” of 21% based on operational phone numbers for 2164 patients. It had a “benefit reach” of 12% where benefit is defined as the ability to detect and respond to SDOH needs being experienced by the patient.

Impact. 49% of responding seniors with any SDOH need and 88% of high-need seniors received virtual service navigation support from CHAs. Support included additional assessment, coaching, social support, referrals, service navigation, advocacy and follow-up. Patients were referred to 32 different types of services based on needs reported on the SDOH screener. 100% of seniors reporting SDOH needs received outreach by CHAs. 88% of seniors were engaged and received support services from the CHA specific to their SDOH needs. The primary reason for failure to provide services was inability to reach the patient. The majority (65%) of patients participating reported resolution of the need within 4 weeks of contact with the CHA and typically sooner based on patient and CHA feedback.

Provider satisfaction. On a 1 (low) to 5 (high) scale, Dr. Thomas and his PCP team rated the VCC a 5 (High) on value to patients, indicated they were “highly likely” to continue the VCC if it continues to be available and indicated they were “highly likely” to recommend the VCC to other PCPs as a means of expanding support for SDOH needs of their patients.

Patient satisfaction. Ninety-nine percent (99%) of 268 respondents rated the SDOH screening as “easy” to complete, 84% indicated they "liked their doctor to check-in like this."

Patients providing direct feedback on their experience with the VCC with a number of patients (7-10) describing feeling “cared for” by their PCP, “appreciative” of the support, and appreciative of the CHA's support. Several noted they planned to call Dr. Thomas to express their thanks for checking-in on them this way and commented that they were "very satisfied" with their care and the practice during COVID.

Cost analysis. Estimated costs to implement VCC in small PCP practices include the cost of the CHA time, CHA supervision time, use of the PatientToc survey platform and population management tool, PCP care coordinator time, and the cost of EHR access for CHAs to obtain updated phone numbers and other information on patients.

Based on a 3-month timeline and estimated 12% response rate, per patient costs are estimated to be:

Per patient successfully screened (N=268): \$115*

Per high-SDOH need patient identified and engaged (N=87): \$356

Costs per patient will decline as response rate is increased through improved call lists, education by the PCP and use of additional SDOH screener collection methods like tablets and portals.

Problems encountered and response

The first problem encountered was the inability to obtain information on a patient's preferred language from the PCP's EHR. This limited our ability to tailor SMS screening and phone outreach to the patient's preferred language. In lieu of this, we used patient names to estimate patients' preferred language and tested this approach with approximately 600 patients resulting in an 11% response rate to the screener among this group.

Table 4. Spanish language responders*

	Total
Total patients on list**	820
Bounced	222 (27%)
Total possible to engage	598 (73%)
Total responding	65** (11%)
SMS opt outs	9
Engaged by phone	44
Completed screener	12

* SDOH data not included in analysis and evaluation

**PCP unable to provide list with preferred language of patient so Spanish language survey sent to a subset of patients based on name analysis.

A second challenge we encountered was the high error rate for phone on the call list. More than half were non-usable. Maintaining accurate contact information for patients has always been a challenge for PCPs and is particularly difficult with low-income patients. An unexpected benefit of the VCC for the PCP was the identification of working and non-working numbers and the ability gather supplemental contact information from patients we were able to engage. These data are valuable in and of themselves to the PCP. In future implementations of the VCC, the cleaning and improvement of call lists as part of the VCC can be used to benefit the PCP in this area as well.

A third challenge was the relatively low response rate to the SMS and phone outreach screening of 12%. We had hoped that by closely aligning the outreach methods with the PCP including mentioning the PCP's name in the texted screener, would result in more patients being willing to complete the screener. Because of the amount of spam and also spam activities taking place via SMS and phone calls, individuals are reluctant to respond to texts and calls they receive from unknown numbers.

While the response rate we obtained is comparable to response rates from similar projects, it fell short of our expectations. One of the promises of the VCC is the ability screen large numbers of patients in order to detect those patients with the highest SDOH burden efficiently, and then direct scarce CHA resources towards supporting these high need individuals.

The VCC team agrees that in future projects, a pre-launch patient education period delivered by the primary care practice to patients will increase response rate. This could occur via posters in the wait room and scripted education by the MA and MDs.

Incorporating site-based screening technology including tablets, portals and paper once these are possible post-COVID, will also increase response rates substantially. A tablet based screening project conducted at Florence Western using PatientToc obtained a 95% response rate among senior patients for SDOH screening. As COVID resolves and patients return to in-person visits, it will be possible to add these additional methods of SDOH screener collection to the VCC.

A fourth challenge were "false positives" generated from the SMS screeners. While the amount was low - 6 out of 136 screeners - it results in less efficient use of CHA time by prompting unnecessary outreach calls. False positive responses can be reduced by simplifying the response sets used in the SDOH screener. We believe this can be done without affecting the usefulness of the screener for identifying patients who need outreach and support by the CHA.

A fifth challenge was the lack of an SDOH care management platform for use by the Community Health Advisors. While our original plan had been for the CHAs to enter information about their service navigation efforts directly into the FW/MF EHR, Office Ally, the CHAs found the system difficult to navigate and not well suited for SDOH service documentation. As a result, we opted to use a paper-based documentation system while LA Net reviewed and selected an on-line SDOH management information system. After reviewing 15 different systems, we determined that none met the project's needs based on information captured or cost. In response, LA Net in collaboration with PatientToc developed its own SDOH management platform for use by the project and in future VCC interventions. The information system was developed using funding from outside sources. Archstone

grant funds were not used to develop the information system since that was not included in our original budget request.

The information system is called the SDOH Manager and is auto-populated by the results of patients' SDOH screeners. The CHA then uses the information system to review each new screener and then to document services delivered and the status of the patient.

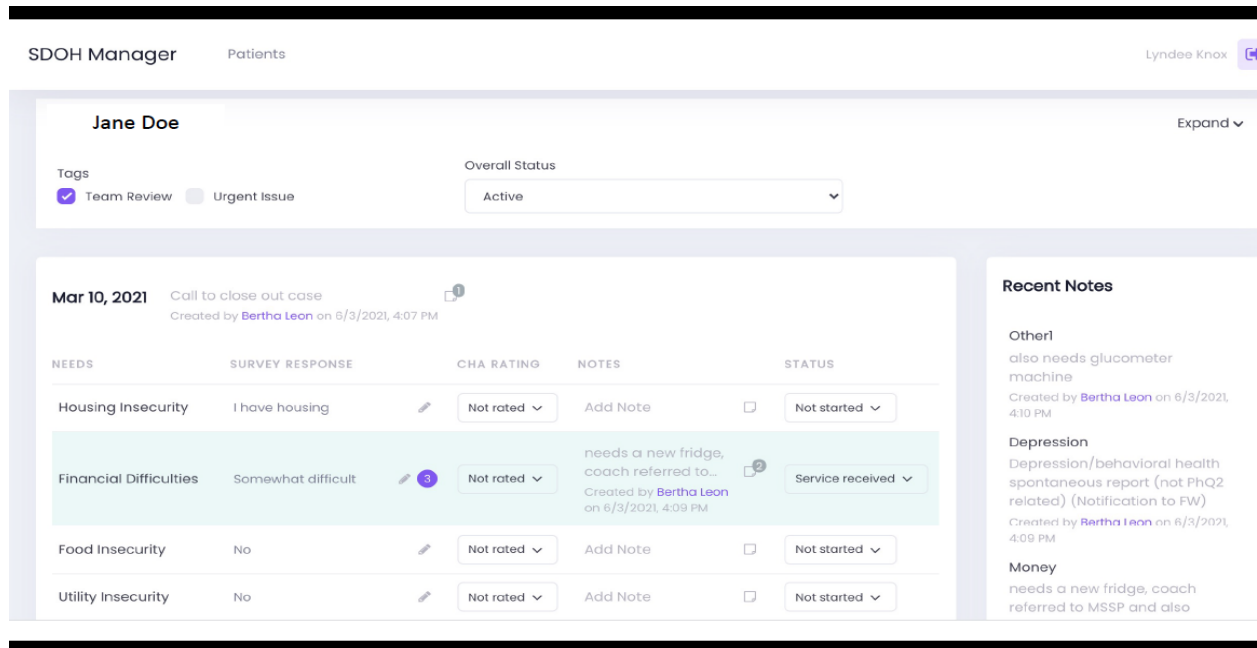
The system uses a "management by needs" approach, where the CHA is able to see a patient's response to the most recent SDOH screener, document the support provided for each identified need, and flag issues that have not yet been addressed and route them to the PCP for assistance, as needed.

Unfortunately, the system build was not completed until the final week of the project, and so it was not possible to use to manage the cases from the current VCC project. However, data were entered retrospectively into the system for this project and used in the writing of this report.

We will continue to refine the system with the plan to make it available for the next VCC. The system's auto-fill feature makes it very simple and efficient for CHAs and staff in a PCP to use.

Next steps will also include methods for transmitting these data into the PCP's EHR for use at point of care. This will include developing interoperability with EHRs by mapping data fields to recognized standards like SNOMed and creation of a FHIR interface. LA Net has applied with L.A. Care for a recently ONC LEAP grant to create exactly this type of closed-loop capacity for SDOH referrals which would also inform development of its SDOH manager.

Figure 2. Screenshot of care management platform prototype



Outputs

2164 patients were contacted for SDOH screening by SMS or by phone outreach and screen for SDOH needs.

Of these, 448 (21%) responded and 268 (60%) completed an SDOH screener. 145 (54%) were seniors aged 60 or older and 122 (46%) were 59 or younger SPD patients.

74 (49%) the 145 seniors who responded to the screener and reported an SDOH need received support from a CHA.

Responders were navigated to 32 different services ranging from CalFresh to IHSS support for in-home caregiving based on the needs they reported.

88% of the 29 seniors classified as “high need” received CHA support and were navigated to services. 22% were not able to be reached during the project period.

CHAs documented 1554 outreach attempts and service navigation encounters over the 3 month project period.

In addition, the team developed detailed flow-charts for the VCC team showing PCP and CHA response to each SDOH need identified. These flow charts facilitated effective collaboration between the care team and the embedded CHA or community health advisor. See earlier section for examples of these flow-sheets.

As described earlier, the VCC team also worked together to design and develop an SDOH management platform that will be auto-populated by patient SDOH screeners and facilitate efficient patient centered needs management and documentation by CHAs for future implementations of VCC.

Outcomes

The primary aim of this project was to assess the potential contribution and feasibility of the VCC model for increasing PCP's ability to respond to SDOH needs in their patients during COVID.

This project provided the opportunity to test the VCC intervention model in a real-world setting with more than 2000 patients. The intention was to assess the reach, potential impact and cost of the VCC to guide possible scale and spread to other small practices.

Reach. The VCC had an “engagement reach” of 21% based on operational phone numbers for 2164 patients. It had a “benefit reach” of 12% where benefit is defined as the ability to detect and respond to SDOH needs being experienced by the patient. Reach was acceptable and can likely be increased through patient education and also inclusion of tablet and portal based screening as practices return to more on-site visits.

We were particularly interested in determining whether the use of text/SMS based screening could be an efficient method for identifying which patients have the highest level of SDOH needs and should be prioritized by the CHAs - with the idea that CHAs are a scarce resource and the more precisely we can determine which patients are most in need of their support, the greater impact they will have.

To this end we found that seniors were significantly more likely to complete SDOH screeners via phone call (75%) than SMS (25%). Younger SPD patients were significantly more likely to respond to screeners sent by SMS (85%) than to phone calls (15%).

When examined by need status, patients reporting urgent SDOH needs were significantly more likely to respond to the screener via SMS (83%)(67) vs. phone (17%)(14) compared to patients reporting less urgent or no needs ((36%)(66) by phone vs. 63% (113) by phone).

Impact. While we were unable to assess the actual impact of the referrals on patient health and well-being because of the short duration of the project, we were able to determine that a significant percent of patients who responded to the screener with a need connected with a CHA and was either referred to or navigated to services.

49% of responding seniors with any SDOH need and 88% of high-need seniors received virtual service navigation support from CHAs. Support mainly consisted of referrals and follow-up. Patients were referred to 34 different services based on the needs reported. 100% of seniors with urgent SDOH needs received outreach by CHAs. 88% of seniors received support services by the CHA. The primary reason for failure to provide services was inability to reach the patient. The majority (65%) of patients participating reported resolution of the need during the project period based on patient feedback.

Provider and patient satisfaction. In addition, we found high levels of satisfaction with the VCC approach among both the participating PCPs and patients.

On a 1 (low) to 5 (high) scale, Dr. Thomas and his PCP team the VCC a 5 (High) on its value to their patients, a “highly likely” to continue the VCC if available and a “highly likely” to recommend the VCC to other PCPs as a way to expand the services they provide their high need patients.

The majority of patients responded positively to the SDOH screening and service navigation with 99% of 267 respondents rating the screening as “easy” to complete, 73% indicating that “I like my doctor to check-in like this” and 11% describing themselves as neutral.

Patients providing direct feedback on VCC screening and outreach reported feeling “cared for” by their PCP, “appreciative” of the support, with several noting they had either placed a call to their PCP to express their thanks for checking-in on them this way.

Table 5. Patient satisfaction items

Item	Response (N =267*)
How easy was this survey for you to complete?	Easy - 93% (249) Neither easy nor difficult - 6% (15) Difficult - 1% (3)
How do you feel about your doctor checking-in with you like this during these difficult times?	I like my doctor to check-in like this - 73% (194) I am neutral, I neither like nor dislike it - 23% (58) I do not like it - 6% (15)
We would like to call or text you periodically to check-in like this and help you with resources. Is this ok?	Yes - 82% (217/266) No - 18% (49/266)

* discrepancy with overall totals due to skipped items and missing data

Changes in future projects and lessons learned

Changes we will incorporate in future projects and lessons learned include

Extending the timeline. While 3-months was an appropriate time period for a rapid-cycle proof-of-concept study in response to COVID, the VCC intervention will be most effective over a longer period of time, and where possible established as a permanent resource for a practice.

Adding additional methods of SDOH screener collection including tablet-based on-site screening. The VCC is most effective when there is close to universal

screening. This allows the CHA to use screening results to identify patients with the greatest SDOH burden and focus their time and efforts on these patients most likely to benefit from their support. While we were unable to come close to this benchmark in the current project, previous projects we've conducted that include tablet-based screening at the practice have achieved rates as high as 95%.

The combination of tablet-based screening and SMS and phone screening is likely to yield the best results in a post-COVID health care environment. SMS and phone screening can be used to engage patients who are not coming in for visits or who are continuing to receive care via telemedicine, and tablets can be used for patients who come to the practice.

Adding patient education about VCC before start up to increase response rate. In future projects we will also include a start-up period where care teams educate patients about SDOH screening via SMS and phone and VCC. This education can take place via multi-lingual posters in the wait room and exam rooms, scripted discussions with the MA prior to patient rooming, and scripted education by the clinician.

Increasing capacity to extract data on patient's preferred language from EHR. We will also work more closely with IT staff and EHR vendors to assure we can extract information about patients' preferred language for use in SMS and phone based screening. (Tablet based screening allows the patient to select their preferred language at the start of the process). This will allow us to craft SMS messages in the patient's preferred language and also assure that CHAs with the language skills that align with patient needs are available to make the outreach calls and conduct phone based screening.

Including use of an SDOH case management system to improve case management and transfer of patient information between CHA and PCP. We will also include use of an SDOH case management information system to help CHAs easily track their encounters with patients and track progress towards addressing patient needs.

Train and incorporate "practice peers" to work alongside CHAs in outreach. The CHAs have a high level of knowledge and skill about the social service environment

and also how to motivate patients and navigate them through the process of obtaining services. Peers, however, have intimate knowledge and expertise on the daily lived experience of patients, and factors that may impede their ability to

Include filling gaps in preventive care into CHA's outreach work. Dr. Thomas recommended that having CHAs also work with patients who screen positive for SDOH needs to fill preventive care service gaps at the same time they are addressing SDOH will increase the value-add of the VCC intervention both to PCPs and to patients. Addressing and filling gaps in care improves PCPs performance measures which can lead to increased assignment of patients to the practice by health plans and incentive payments. Filling gaps in care also improves the care received by the patient, reducing negative health outcomes and increasing early detection and response to health risk. CHAs can do this by helping the patient schedule and make visits with the PCP for these services and providing education to the patient about the importance of these services.

Plans for continuing the work

LA Net and its collaborative partners for the VCC - Florence Western and Partners in Care have applied with L.A. Care for an ONC LEAP grant to develop and test a "closed loop" referral system for SDOH management. The need for this was identified during our work with the VCC.

In addition, we will be presenting our findings from the VCC to health plans and other PCPs with the potential of replicating its use in these settings. We are currently supporting a related food insecurity screening project at Eisner Health that uses tablet based SDOH screening (via PatientToc) and automated connection to local resources. We hope to expand this to include CHA navigation support and also use of the newly developed SDOH manager.

We also anticipate publishing the results of the VCC demonstration in an academic journal in the coming year.

We appreciate the opportunity you provided us to do this important work and are looking forward to continuing it in the coming months.