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How to Identify and Support Emerging Risk Medi-Cal Members with Complex Social and Behavioral Needs

A Diabetes Case Study

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About the Foundation

The California Health Care Foundation is an independent, nonprofit philanthropy that works to improve the health care system so that all Californians have the care they need. We focus especially on making sure the system works for Californians with low incomes and for communities who have traditionally faced the greatest barriers to care. We partner with leaders across the health care safety net to ensure they have the data and resources to make care more just and to drive improvement in a complex system.

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Contents

The Need for Better Diabetes Care in California

A significant number of Medi-Cal enrollees with diabetes have complex, unmet medical, behavioral, and social health needs that impact their health. Medi-Cal health plans, health systems, and providers are increasingly focused on meeting these needs. Here the authors report on a partnership between a nonprofit organization, a Medi-Cal managed care plan, and a Federally Qualified Health Center that shows promise.

Health care systems, payers, and providers in California are increasingly focused on finding better ways to meet interconnected, complex patient needs to improve outcomes and address equity.[1] California currently ranks 45th nationally for prevention and treatment services in The Commonwealth Fund's *2023 Scorecard on State Health System Performance*.[2] California is 48th for the percentage of people with diabetes who had an annual HbA1c test, which measures blood sugar control over the past three months.[3] The state has consistently ranked near the bottom for these indicators since 2019 and has not ranked above the bottom third for prevention and treatment services since 2009. In 2021, 37.5% of enrollees with diabetes in managed care plans under Medi-Cal, the state Medicaid program, had an HbA1c >9% (indicating poorly controlled diabetes and a higher risk of complications) — an increase from 34.2% in 2019.[4]

It is not uncommon to see a failure to intensify diabetes treatment in this population for a variety of reasons, such as provider lack of time and resources during a visit, or patient reluctance to change treatments due to lack of trust[5] or fear of insulin.[6] Although the American Diabetes Association recommends treatment intensification in those with type 2 diabetes every three to six months, treatment is intensified in only 31% of people living with type 2 diabetes for whom it is indicated, and the mean time to treatment intensification is 3.7 years.[7] In addition, persistent inequities in diabetes control exist based on age, race, ethnicity, and income.[8] For example, non-Hispanic Black people with type 1 diabetes experience higher rates of acute complications like diabetic ketoacidosis (DKA) and severe hypoglycemia that may result in hospitalization or death despite the existence of continuous glucose monitoring technology that can help reduce the occurrence of such events and is the standard of care for people with diabetes who use insulin.[9] Additionally, Latinos/x in the United States have a 66% greater risk of developing type 2 diabetes and, once diagnosed, receive less care overall and exhibit worse outcomes than non-Hispanic White people.[10]

Complex Medical, Behavioral, and Social Health Needs

Many people living with diabetes who have persistently elevated HbA1c values have complex medical, behavioral, and social health needs that have not been addressed.[11] For example, individuals with poorly managed behavioral health conditions often struggle to control their diabetes,[12] and unmet social needs are clearly linked to diabetes control and complications.[13] More broadly, approximately 60% of health outcomes for people with chronic conditions are determined by behavioral and social factors for which services are often not available in traditional medical settings.[14] The failure of the health care system to meet these needs can be attributed to the following factors:

- An inability to match the right patient with the right care when and where they need it, such as effective self-management support, counseling, and social health resources.

- A lack of timely, accurate, and actionable data connecting medical, behavioral, and social health care processes, outcomes, and costs for those organizing and delivering care.
- Health benefit plans that provide payment for clinical care but often not adequate behavioral and social health support.
- A lack of aligned financial and other incentives across all health care delivery system stakeholders to address complex, unmet medical, behavioral, and social health needs.
- Inadequate staffing and services in primary care safety-net settings to meet the needs of a complex patient population.[15]
- A feeling of being unsupported by the health care system on the part of patients with chronic conditions, particularly those with lower incomes.[16]

Here the authors report on a promising solution to address these challenges developed by a nonprofit organization in California.

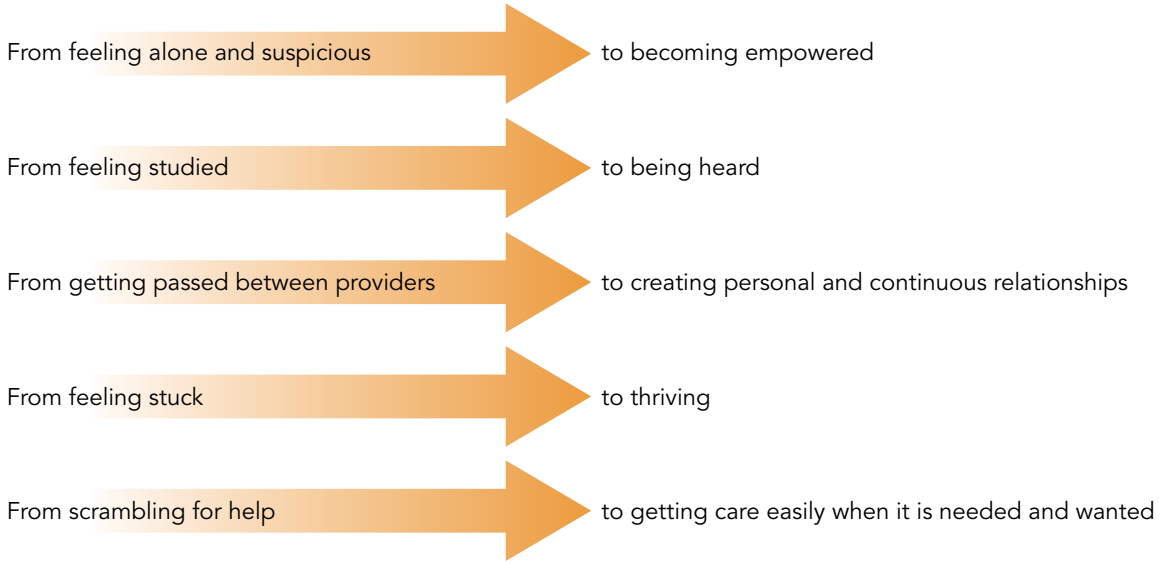
Designing a Program to Address Complex, Unmet Needs

Vayu Health, a nonprofit in California, partnered with a Medicaid managed care (MMC) health plan, Health Net, and a Federally Qualified Health Center (FQHC), Ampla Health, to develop and test an approach to address complex, unmet medical, behavioral, and social health needs. They selected patients with uncontrolled type 1 or type 2 diabetes, in part because of the easily available and well-defined metric (HbA1c >9%) that health care system stakeholders such as MMC health plans and FQHCs are motivated to improve for a relatively large population of patients. This population experiences the following challenges:

- Little or no decrease in the proportion of patients with HbA1c >9% over time.
- Persistent disparities in diabetes control and outcomes based on age, race, sex, and income.
- Significant elevated risk for future complications due to lack of diabetes control, including end-organ damage such as retinopathy, nephropathy, and vascular disease.
- A general failure by clinicians and primary care teams to intensify treatment for an elevated HbA1c due to multiple competing demands during primary care visits (therapeutic and clinical inertia), as well as unmet behavioral and social health needs.[17]

The care team employed by Vayu Health consists of a registered nurse (RN) care team leader; a community health worker (CHW) living and working in the community and embedded in the primary care clinic; and a certified diabetes care and education specialist/registered dietician (CDCES/RD) and a behavioral health counselor, both of whom provide services remotely. This team collaborates with FQHC primary care providers (PCPs) and their teams to identify, enroll, and engage eligible patients in their care. Once a patient is enrolled, the team delivers high-touch patient interactions (as often as every day) and proactive care that is trauma-informed, culturally sensitive, and focused on the whole person (Figure 1). This type of care was made possible by hiring care team members with lived experience who were linguistically and culturally concordant with participants, and providing them with ongoing training on respectful interactions, listening skills, and motivational interviewing.[18] The goal was to build trust with the participants by focusing on and prioritizing their self-identified goals; establishing patient-centered action plans; and coordinating and delivering targeted medical, behavioral, and social health risk-reduction services (e.g., providing stable behavioral health care or facilitating community connections to address food insecurity). This care required the team

Figure 1. Human-Centered Care Helps Empower People



Source: Created by Schirin Richter for Stanford Coordinated Care, 2012. Adapted by Vayu Health.

to coordinate and collaborate through weekly virtual care conferences, daily virtual huddles, and ad hoc calls and texts. The team fostered convenience and increased access for program participants by providing care in the clinic, virtually, and in the community (e.g., church, community centers).

Engagement with program participants is defined by five phases (Table 1):

1. Recruitment and enrollment
2. Understanding participants and creating personalized care plans
3. Ongoing personalization of integrated support and/or management of medical, behavioral, and social health care pathways
4. Graduation
5. Post-graduation follow-up

In phases 1 through 4, the CHW attends PCP visits with the participant and provides necessary care coordination services and follow-up after the visit, such as resolving pharmacy problems or coordinating referrals. The CHW also connects the participant to local community resources to address social health needs such as food or housing insecurity. The CDCES/RD supports the PCP's recommended diabetes medication regimen through remote monitoring, initiates continuous glucose monitoring if appropriate, provides the participant with diabetes self-management support, and offers affordable and culturally congruent diabetes nutrition advice. The behavioral health counselor helps identify emotional/behavioral problems and areas of need as well as potential areas of strength; teaches and encourages ongoing healthy habits and coping skills; and provides counseling to help manage symptoms of stress, depression, fear, and trauma that currently impair the participant's health in order to improve their engagement with medical care. The team meets daily in a huddle, weekly for a care conference, and ad hoc to work together to provide proactive, integrated, human-centered care, including coordinating self-management support, celebrating progress, and driving behavior change.

Table 1. Phases of the Participant's Journey

PROGRAM PHASE	COMPONENTS
1. Recruitment and enrollment	▸ Identify potential participants for the program ▸ Verify their eligibility ▸ Inform their primary care provider (PCP) ▸ Provide outreach to potential participants ▸ Complete enrollment
2. Understanding participants and creating personalized care plans	▸ Initial virtual co-visit with the participant and the community health worker (CHW), certified diabetes care and education specialist/registered dietitian (CDCES/RD), and behavioral health counselor to get to know the participant ▸ First CHW visit (in person or virtual) ▸ First virtual CDCES/RD visit ▸ First virtual behavioral health counselor visit ▸ First PCP visit ▸ Behavioral health and social determinants of health assessment surveys ▸ Team care conference for patient-centered action planning
Ongoing personalization of support and/or management of medical, behavioral, and social care pathways	▸ Appointments with the CHW in the clinic or community ▸ Virtual appointments with the CDCES/RD and behavioral health counselor ▸ Building competency in skills, knowledge, and confidence ▸ Bidirectional communication via text with the CHW, CDCES/RD, and behavioral health counselor with rapid responses ▸ PCP follow-up appointments, which the CHW attends with the participant ▸ Monthly HbA1c testing in the clinic before PCP visits
3. Graduation	▸ Discussions and agreement by the participant and team of readiness to graduate ▸ Connecting the participant to community and specialty resources for ongoing support ▸ Graduation celebration with the participant's friends or family support system, CHW, CDCES/RD, and behavioral health counselor
4. Post-graduation follow-up	▸ Post-graduation follow-up with the participant by the CHW at regular intervals

Source: Vayu Health Workflows and Operations Manual, shared by Avni Shah, June 2023.

Proof-of-Concept Demonstration

To demonstrate proof-of-concept for the program, Ampla Health selected one primary care clinic with limited diabetes education and self-management support, behavioral health care, and social services. A primary care provider in the clinic was identified to partner with the care team due to their interest in better meeting the needs of patients. Ampla patients who were enrolled in the Health Net MMC plan and had type 1 or type 2 diabetes and at least one HbA1c value ≥9% in the prior six months were recruited to participate. A total of 51 participants were enrolled. (See the Appendix for details about recruitment and characteristics of enrolled patients.)

Unmet Behavioral and Social Health Needs

Participants completed several assessments at enrollment, including the Patient Health Questionnaire-9 (PHQ-9); the General Anxiety Disorder-7 (GAD-7) survey; the PTSD Checklist for DSM-5 (PCL-5); and the Protocol for Responding to & Assessing Patients' Assets, Risks & Experiences (PRAPARE) social needs screening tool. Early in the program, eight enrollees declined to participate in the psychosocial components of the baseline assessments due to a lack of understanding of the available behavioral health support; the team subsequently addressed this barrier through design and continuous improvement methods. Among the 43 participants who completed all assessments, 84% had at least one behavioral health condition (Table 2).

Table 2. Behavioral Health Conditions of Participants at Enrollment (*n* = 43)

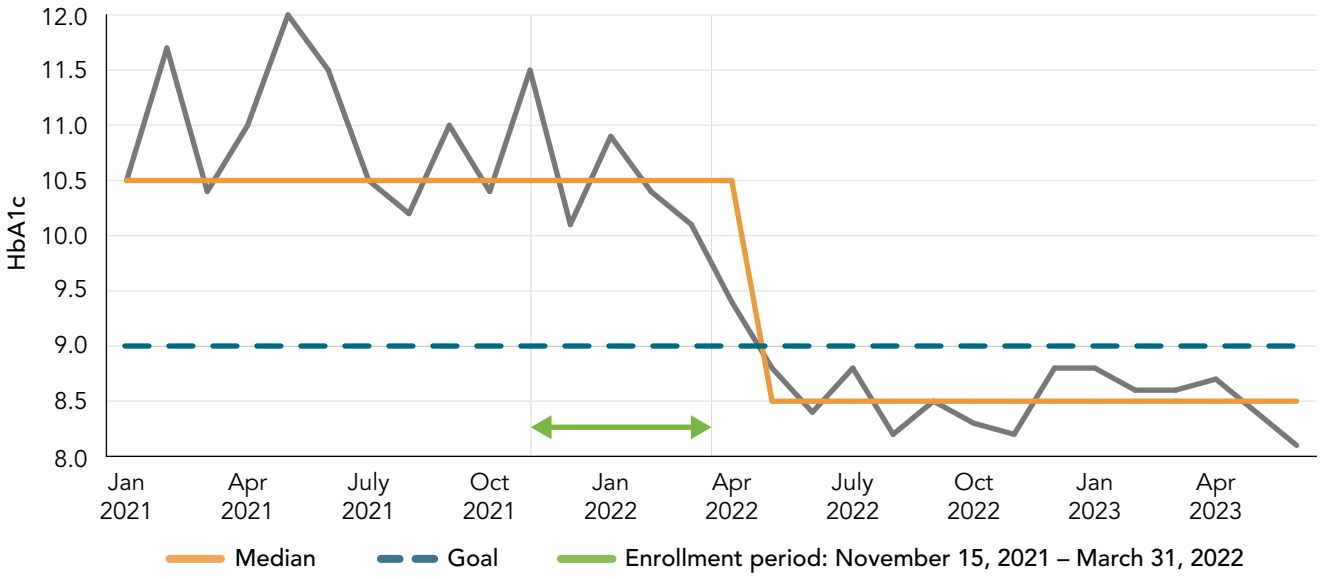
CONDITION	PARTICIPANTS (*n*)	PARTICIPANTS (%)
Depressive disorder	24	56%
Trauma and stress-related disorders	22	51%
Anxiety disorders	11	26%
Substance use disorder	9	21%
Bipolar disorder	2	5%
Any condition	**36**	**84%**

Source: Vayu Health team.

Of these, 44% had at least two of these conditions. Approximately half (51%) had experienced two or more adverse childhood experiences. Only 8% were accessing behavioral health services at the time of enrollment. Over 60% reported it was the first time someone had asked about their mental health.

Over 90% reported at least one unmet social need. The top three unmet social needs were transportation insecurity (37%), utility insecurity (36%), and food insecurity (29%). As the care team established rapport and trust with participants over the first three months of the program, patient reports increased for food insecurity (63%), housing insecurity (49%), and employment insecurity (18%). The CHW tracked these needs and connected participants to local resources. For example, when a patient failed to attend PCP visits over a few months, the CHW continued to send weekly encouraging text messages. The participant finally reached out to the CHW to request help obtaining some household products. When the CHW met the member in the community to provide the items, the member revealed personal safety issues, prompting the CHW to refer them to appropriate community services.

Figure 2. HbA1c Trend Before and After Program Enrollment, January 2021 to April 2023



Source: Vayu Health team.

Rapid Improvement in Diabetes Control

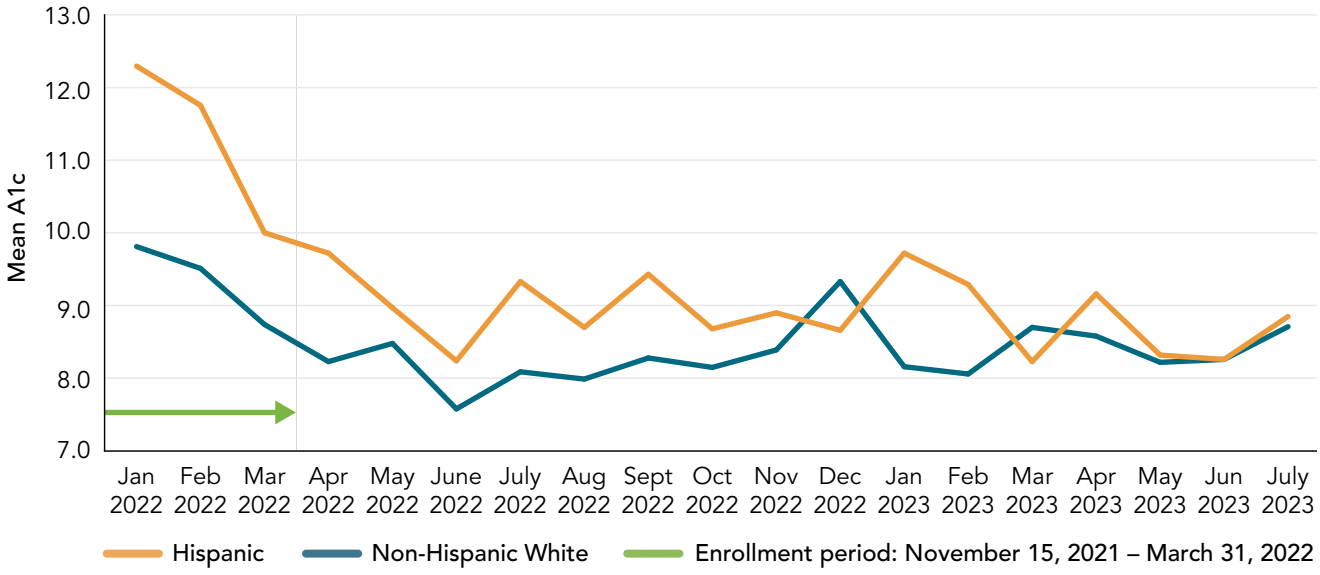
After enrollment in the program, HbA1c values went from a median of 10.5% before enrollment to 8.5% after enrollment (Figure 2). Goals for each individual participant were personalized by the primary care provider. Individual improvements of 0.5% were celebrated and considered clinically significant. Both participants and the care team attributed this success to the following factors:

- Building trust and culturally and trauma-informed relationships through methods such as ongoing team trainings and case studies, addressing participant safety needs, and having bilingual team members.
- Focusing on patient-identified goals, which varied and were very specific to the patient even if they were not connected to medical, behavioral, or social health care — for example, wanting to "fit into my wedding dress in a year."
- Using a multidisciplinary, integrated team approach to proactively address diabetes treatment inertia, behavioral health conditions (including stress), and unmet social needs.
- Building patient skills, knowledge, and confidence.
- Reducing barriers to care by connecting participants to local resources such as transportation assistance and food banks.
- Providing additional diabetes support such as initiation of insulin injections, guidance on how to treat low blood sugar, suggestions for affordable and culturally congruent meals, proactive review of blood sugar, assistance in understanding and following the PCP's diabetes plan, and initiation of continuous glucose monitoring.
- Offering daily to monthly proactive, whole-person care coordination and collaboration.
- Advocating for patients and helping them navigate complex health care systems.
- Embedding a CHW in the primary care clinic to enable PCP co-visits and streamline scheduling and communication.
- Reducing barriers to the use of medications and equipment, such as quickly resolving prescription issues with the pharmacy.

Addressing Equity

In addition to the overall improvement in HbA1c, there was a sustained reduction in the observed disparity in HbA1c control at enrollment between participants who identified as Hispanic (any race) (*n* = 18) and those who identified as non-Hispanic and White (*n* = 20) (Figure 3). Members of the care team attributed this success to both structural and relational elements of the program. Examples of structural elements include a team of individuals with skills that are hard to find, culturally competent self-management training, affordable and culturally appropriate nutrition planning, behavioral health counseling, remote monitoring, and proactive monitoring of progress between clinician visits. Examples of relational elements of the program include building trust, prioritizing the participant's self-identified goals, fostering ongoing discussions between the team about how to engage and personalize care, keeping in mind cultural preferences and potential team biases, continually and actively listening to each participant with cultural humility, and celebrating each participant's small and big successes.

Figure 3. Hispanic Versus Non-Hispanic White HbA1c Trends, January 2022 to July 2023



Source: Vayu Health team.

Costs and Utilization

Due to the small number of participants in this early evaluation of the program, it is too early to determine the impact of the program on costs and health care utilization. However, larger studies and evaluations demonstrate that lowering HbA1c values has an impact on these important outcomes.[19] Long-term costs and utilization related to uncontrolled diabetes accrue from damage to the eyes, kidneys, and cardiovascular system. A longitudinal follow-up study of the Diabetes Control and Complications Trial found that a one-year temporary improvement in HbA1c has a significant positive legacy effect on the development of complications.[20] More immediate, and perhaps just as important, are stories from patients about how the program improved their overall health and quality of life. Participants made the following comments:

- "I haven't had an A1c that good in over a decade!"
- "They accepted me, they helped me, they encouraged me — sometimes that's all I need."
- "Thank you all for caring, I haven't felt like that before.… I felt like a person."

Implications for CalAIM

The Vayu Health experience has implications for implementing the California Advancing and Innovating Medi-Cal (CalAIM) initiative. To provide a more integrated and people-centered approach to care for Medi-Cal enrollees with complex, unmet needs, the California Department of Health Care Services (DHCS) launched the CalAIM initiative in 2022. It includes two components: Enhanced Care Management (ECM) services and Community Supports. Early observations from the first few months of the CalAIM program identified challenges to launching and supporting ECM programs, including the need to build new partnerships and the time required to do so, the critical role of proactive outreach and the required resources to do it, and the importance of capacity-building funds for programs to launch and sustain their efforts.[21] Similar to these ECM programs, Vayu Health has experienced each of these challenges during its start-up phase.

The Vayu Health experience also raises the possibility that some patients who meet serious mental illness (SMI) criteria for CalAIM but are undiagnosed might be identified by finding MMC health plan members with persistently elevated HbA1c ≥9%, since approximately 75% of the participants in the program described here meet SMI criteria. Health Net was able to identify only ~20% of the Vayu participants with a diagnosis that meets SMI criteria. Identification of people with SMI is difficult for health plans, especially if the person has not been diagnosed or used mental health services. The more traditional approach of identifying people with high needs using utilization and cost data from inpatient and emergency department visits overlooks rising-risk people with high needs who may not be accessing the health care system.[22] The method used here avoids this drawback. In addition to offering much needed behavioral health services, this program was successful in delivering core ECM services, such as:

- Outreach and engagement with a high-needs population
- Comprehensive assessment and care management planning
- Enhanced coordination of care
- Health promotion
- Comprehensive transitional care
- Participant and family support
- Coordination of and referral to community and social support services

In addition to offering ECM-like services, a program like the one offered by Vayu Health might also help MMC health plans improve their Healthcare Effectiveness Data and Information Set (HEDIS) and behavioral health metrics for other state Medi-Cal initiatives.

Implications for Medicaid Managed Care Health Plans

This proof-of-concept demonstration suggests that this approach to supporting and supplementing efforts by an FQHC primary care team to address complex, unmet needs is feasible to implement in partnership with MMC health plans and FQHCs. It would allow the health plans to purchase a solution to address and focus on the needs of complex patients faster than building quality improvement capacity into already strained and under-resourced FQHCs. The strategy of working with MMC health plans also facilitates partnerships with FQHCs similar to the Health Net–Ampla collaboration. This strategy could align with the timeline and needs of health plans to quickly improve outcomes for hard-to-reach populations.

This type of program is likely not needed for all patients with diabetes, but for only a rising-risk population, meaning those who are not yet high utilizers of care but whose poor control of chronic conditions and unmet behavioral and social health needs may lead them to become such in the near term.[23] As shown in this small demonstration, it may be possible to identify these individuals by their persistently elevated HbA1c values. This program is also not likely needed in every FQHC, but perhaps only those known by MMC health plans as meeting three criteria:

1. Consistently not meeting quality metrics for diabetes control
2. Having a low probability of rapid improvement in the near future
3. Serving a substantial number of rising-risk people living with diabetes with HbA1c ≥9%

Future implementations of programs that support and supplement the efforts of a primary care team within an FQHC like the one developed by Vayu Health will require partnering with MMC health plans to select and recruit FQHCs whose patients would benefit most from the initiative and who have interest in collaborating to implement such a program, though the majority of the work would not be handled by the FQHC.

Implications for FQHCs

In addition to the CalAIM initiative, California is moving forward with an FQHC alternative payment model (APM) with a proposed implementation date of January 1, 2024. A key element of this initiative is that FQHCs will be accountable for outcomes of care for all assigned Medi-Cal patients, including those who are inactive. As a result, FQHCs may need help with outreach to and engagement of hard-to-reach patients with complex medical, behavioral, and social health needs. These patients are often difficult to engage because of past trauma and an understandable lack of trust in traditional clinical care. Building trust and then empowering people to engage in improving their own health was the guiding principle for how Vayu Health cares for participants, but building this trust takes time, effort, and intentionality from the team.

Program Spread and Sustainability

Spreading and sustaining a program such as the one described here across a diverse set of FQHCs in partnership with other MMC health plans will require both capacity-building funds and a shift away from fee-for-service to more innovative and value-based payments such as prospective monthly case rate payment for a program's defined scope of services. The program described here was made possible by a grant from The Leona M. and Harry B. Helmsley Charitable Trust to fully fund the proof-of-concept, which included not only the care program but also development of a prospective case rate payment in partnership with Health Net to support long-term scale-up and sustainment of the program. This initial grant funding removed the financial burden for Health Net and Ampla Health to participate, which made it easier to start a collaboration and avoided debate about who should invest in such a program at this early stage since the entity that pays doesn't always see a traditional return on investment (ROI). What was learned was that traditional actuarial methods for developing prospective payment rates and ROI models to also advance health equity were lacking because the complex population enrolled was often made up of people who underutilized care at baseline (making them low cost from the health plan actuarial perspective), and traditional methods of risk stratification did not account for behavioral or social risk factors.[24] Insights from the care provided to participants that might explain this underutilization include the following:

- Most participants with a behavioral health condition had never been formally diagnosed and thus never received services for these conditions.
- Many participants did not access the health care system due to unmet social needs not typically addressed or covered by MMC health plans.
- Participants often did not seek care between visits due to a lack of trust in the health care system and the complexity of their daily life because of unmet behavioral and social health needs.
- Participants often did not take medications as prescribed and thus had lower rates of medication refills and fewer follow-up clinic visits to refill prescriptions.

Vayu Health is currently engaged in conversations with two MMC health plans about how to measure ROI from a health plan perspective for this rising-risk population. Both plans acknowledge the challenge and expressed interest in partnering to create a new actuarial model to assess health plan value of investment, as they are committed to improving both health care quality and equity. The health plans recognize that without this intervention, participants in a program such as that offered by Vayu Health may develop complications from their diabetes and need more intensive care in the near future. Questions being raised in these conversations include the following:

- How much is an improvement in behavioral health symptoms worth?
- How much is a reduction in unmet social health needs worth?
- How much is an improvement in equity worth?
- How should these outcomes be measured and evaluated?

Developing a new actuarial model to assess health plan value of investment will inform ongoing learnings and refine MMC capacity building and prospective payments, further supporting the development, spread, sustainment, and outcomes of programs like that of Vayu Health.

Next Steps

With the early promising findings from this proof-of-concept demonstration, Health Net is both working on providing financial support (partially enabled through CalAIM ECM funds) for organizational capacity building and preparing a monthly case rate payment to be applied to future participants in the program by the end of 2023. Health Net has also requested that this program be expanded into two new FQHCs. In addition, Vayu Health signed an agreement with another MMC health plan partner to expand its program into two additional FQHCs. The new MMC plan will provide capacity-building support and develop a monthly case rate payment. Finally, additional funding from the Helmsley Charitable Trust will support Vayu's spread and scale operations and learnings during the transition from grant funding to health plan funding. They will also support further development and evaluation of new MMC payment models and a Vayu sustainable business model as the program scales up. These partnerships will increase enrollment to an additional estimated 500 program participants over the next few years and provide further opportunities to evaluate the impact and sustainability of the program with the health plans.

Appendix. Recruitment and Characteristics of Enrolled Participants

Patients were recruited and enrolled in the program if they had a diagnosis of type 1 diabetes for at least three months or type 2 diabetes for at least one year, were age 18–64, had at least one HbA1c value ≥9% within the last six months, and were enrolled in the Health Net Medicaid managed care (MMC) health plan. Patients were excluded if they had untreated psychotic or bipolar disorders without psychiatric support, had cognitive impairment without a caregiver, had complicated malignancies, were terminally ill, were receiving palliative care, were in hospice care, or had other end-of-life issues. To help identify potential program participants, Health Net provided a list of patients with HbA1c values ≥9% within the past year. Members of the care team also reviewed clinic schedules for all primary care providers (PCPs) in the clinic and conducted chart reviews to identify potentially eligible patients.

A total of 51 patients were recruited and enrolled in the program between November 15, 2021, and March 31, 2022. The mean age of participants was 46.4 years (standard deviation, 12.0; range, 19–64), 62.7% were female, and 9 (17.6%) had type 1 diabetes. When asked about race and ethnicity, 20 (39.2%) self-identified as non-Hispanic and White, 18 (35.3%) as Hispanic (any race), 3 (5.9%) as Black, 1 (2.0%) as Asian, and 6 (11.8%) as multiracial. When asked about educational level, 25.5% had not completed high school, 21.6% graduated from high school, 37.3% had education that extended beyond high school, and 15.7% did not answer.

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