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LANDSCAPE ASSESSMENT OF DIGITAL NAVIGATION IN THE CALIFORNIA SAFETY NET

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Table of Contents

EXECUTIVE SUMMARY	4
WHAT ARE THE WINS?	4
WHAT ARE THE CHALLENGES?	4
What are the Recommendations?	5
INTRODUCTION	7
TELEHEALTH IN CALIFORNIA BEFORE AND DURING COVID-19	7
THE DIGITAL DIVIDE IN CALIFORNIA	7
DIGITAL NAVIGATION: A SOLUTION TO BRIDGE THE DIGITAL DIVIDE	7
DIGITAL NAVIGATION PRACTICES VARY ACROSS CALIFORNIA	7
METHODS	7
Outreach	
SURVEY	8
INTERVIEW	8
ANALYSIS	8
RESULTS	8
SURVEY: LEARNING FROM IMPLEMENTERS OF DIGITAL NAVIGATION	8
Participating Health Systems and Patients They Serve	8
How Digital Navigation Programs Are Implemented	
Digital Access and Inclusion Screening of Patients	
Health System Priorities for Digital Navigation Programs	
INTERVIEW: LEARNING FROM THE LEADERS IN DIGITAL NAVIGATION	13
Facilitators of Digital Navigation Support	
Digital Navigation Models	
External Partnerships	
Training of Digital Navigators	
Connecting Patients to Digital Navigators	
STRATEGIC RECOMMENDATIONS	18
REFERENCES	21
APPENDIX	22
A. Survey	
B. INTERVIEW GUIDE	
С. Содевоок	
D. IMPLEMENTATION OF DIGITAL NAVIGATION PROGRAMS	

Executive Summary

California's primary care infrastructure underwent a significant telehealth expansion due to the COVID-19 public health emergency. However, patients facing structural barriers due to racism, poverty, and limited English proficiency struggle to access telehealth services, including virtual visits, patient portals, and remote patient monitoring. This inequity in telehealth access is known as the "**digital divide**." Clear strategies to bridge this gap are lacking¹ but **digital navigation**, an **underexplored service in primary care**, shows promise in **addressing the healthcare digital divide**. Digital navigators assist patients and their care teams by providing training in digital skills, connecting them to telehealth resources, and ensuring access to devices and broadband.²

To assess the current digital navigation landscape and best practices, we surveyed 50 clinics and interviewed 16 primary care leaders serving marginalized populations in California. **Based on our findings, we urge California primary care leaders to recognize the importance of digital navigation programs in reducing** health disparities and to prioritize their implementation and integration into their existing workflow.

What are the Wins?

The role of digital navigator within a primary care team includes a wide range of staff such as medical assistants, front desk personnel, nursing staff, community health workers, physicians or advanced practice providers, and behavioral health professionals, all of whom are equipped to handle digital navigation tasks effectively. External partners included non-profit organizations or volunteer programs that support patients with their digital navigation needs.

80% of surveyed primary care clinics have implemented some form of digital navigation.



- Engaged leaders facilitated the implementation of digital navigation in their health systems by incorporating it into their strategic plans.
- Digital navigation was implemented through diverse models, from having all team members perform digital support to establishing a localized referral hub. These models can be adapted to diverse primary care clinics and health systems.
- Over half (55%) of surveyed clinics offer programs to develop new digital skills or enhance digital literacy.

What are the Challenges?

- The variability in current digital navigation practices presents a challenge to achieving telehealth equity. For example:
 - Only 38% of sites have a standardized screening method to identify and refer patients needing digital navigation.
 - Only 18% of sites support patients accessing an internetenabled device such as a smartphone, laptop, or tablet for telehealth.
- 33% of organizations are not currently prioritizing digital navigation.
- Patients speaking a language other than English (LOE) and older adults were considered priority populations to target for digital navigation programs, by 58% and 71% of participants, respectively.

Older patients and patients speaking LOE are at risk of being left behind.



Only 38% of surveyed clinics screen patients for digital navigation needs.

What are the Recommendations?

- Successful digital navigation depends on proactive and engaged leaders who integrate telehealth equity into their strategic plans and advocate for continuous policy reimbursement and investment. Leaders should recognize the value of improved primary care access, reduced patient churn, and more efficient patient-initiated communication.
- There is no "one size fits all" model for digital navigation; leaders should select a model from several highperforming models. Smaller healthcare organizations might incorporate digital navigation within their care teams or partner with external university volunteers, non-profit organizations, or

Successful digital navigation programs need engaged leadership.



public libraries. Larger organizations may choose to invest in a digitally trained community health worker or centralized Information Technology (IT) support center model, allowing various clinical staff to direct patients to a single resource.

 Screening and digital navigation referrals should be standardized to ensure that patients with the greatest need for digital navigation support can access telehealth services. This approach should be data-driven, utilizing telehealth utilization data from a health equity perspective.

The moment has arrived to address and close the digital divide. Digital navigation plays a crucial yet underappreciated role in advancing telehealth equity. Primary care leadership must resolutely commit to digital equity, strategically invest in bridging gaps in telehealth access, and advocate for sustained reimbursement parity for virtual visits in Medicaid (e.g., Medi-Cal) and Medicare. Leaders within safety net organizations should persist in advocating for language accessibility in digital tools. Given its multilingual and diverse population, the California safety net can lead the way in practical solutions to digital health equity.

WHAT DOES DIGITAL NAVIGATION LOOK LIKE IN **CALIFORNIA?**

80% of surveyed clinics provide some type of digital navigation support to their patient population, but digital navigation programs are highly variable across the state

What Kind of Digital Navigation Support Do Clinics Offer?



NU



Who Are The Digital Navigators?

Provide programs to build patients' new digital skills or increase digital literacy



Support patients to access internet or WiFi







Support patients obtain a device for their telehealth needs





Medical Assistants, Prescribing Clinicians, Nursing Staff



Non-profit Staff





Workers



In-person, individually individually



How Can Patients Engage With Telehealth Support Services?

In-person, group sessions



Virtual, group sessions



Introduction

Telehealth in California Before and During COVID-19

Telehealth is the delivery of health care remotely through electronic communications technology, including video and audio calls for patient-provider consultation, patient health portals for asynchronous communication with healthcare providers, and remote monitoring technology for sharing health data with the healthcare team.³ Due to the COVID-19 Public Health Emergency, telehealth use in California increased from 12% to 49%, as reported by the 2022 California Health Interview Survey.⁴ This significant increase can be attributed to reimbursement parity for video and telephone visits, enabling telehealth reimbursement through Medi-Cal for the first time for many safety net health systems.

The Digital Divide in California

Some patients who face structural barriers due to racism, poverty, and limited English proficiency struggle to access and utilize telehealth services such as virtual visits, patient portals, and remote patient monitoring. Digital health technology in healthcare delivery presents barriers for various stakeholders, including low-income individuals and racial/ethnic minorities who have limited access to broadband internet and devices.⁵ Multilingual patients are concerned about their ability to access telemedicine and their low enrollment and inequitable usage of patient portals across population groups.^{6,7} This inequity in telehealth access is known as the "digital divide."^{8,9,10} In California, efforts to reduce the digital divide have been supported by state and federal funding¹¹, such as the Affordable Connective Program, which provides financial assistance to low-income households for internet access.¹² Despite these initiatives, a digital divide persists; 20% of low-income individuals in California's rural households lack digital devices.¹¹ Additionally, Latinx and Asian patients in California have experienced a slower uptake in transitioning to telehealth services.¹³ Studies have indicated that telehealth services can lead to outcomes comparable to in-person visits¹⁴; therefore, supporting patients' access to telehealth services is critical. To ensure healthcare equity, the primary care safety net must invest in solutions to close these gaps.

Digital Navigation: A Solution to Bridge the Digital Divide

Strategies to close this gap are unclear,¹ but **digital navigation – an underutilized service in primary care – holds promise for bridging the digital divide in healthcare.** Digital navigation encompasses the support, training, and resources necessary to enable individuals with limited digital literacy and access to effectively use telehealth to meet their healthcare needs. Evidence has shown that digital navigation increases telehealth usage, as demonstrated by a rise in patient health portal enrollment among Black and Hispanic patients in a study where digital navigators reached out to patients in a primary care setting.¹⁵ Moreover, digital navigation can enhance the confidence of older adults who are interested in utilizing telehealth but require some assistance.¹⁶

Digital Navigation Practices Vary Across California

Despite the numerous positive impacts of digital navigation, its integration into clinic workflows has been sporadic and varied, lacking a clear consensus on optimal practices. In this white paper, we aim to characterize the current digital navigation landscape of safety net primary care clinics in California and provide recommendations for best practices related to digital navigation across diverse primary care settings.

Methods

We conducted a mixed-methods study among primary care safety net settings in California, including federally qualified health centers and community health centers. These safety net clinics served a significant number of patients who were uninsured or had Medicaid and were economically, socially, or historically marginalized.

Outreach

We recruited participants using snowball and voluntary sampling, wherein participants recommended their peers to participate in the study. Additionally, we disseminated study flyers and recruitment emails to relevant primary

care email listservs, professional association leadership, and social media (X, formerly known as Twitter). We contacted clinics and individuals identified through targeted online searches via email and phone. Despite the inherent limitations of this sampling technique, we successfully obtained insights from a broad range of primary care clinics throughout California, with deliberate efforts to include sites based on geographic distribution.

Survey

We distributed an online, self-administered survey to assess digital inclusion screening procedures, digital navigation practices and workflows, facilitators, and challenges (see Appendix A). We also included responses from a parallel study surveying primary care clinics regarding screening tools for digital inclusion. We compensated participants with a \$10 gift card for completing the survey. It is important to note that in the survey, the term "telehealth support programs" was utilized in place of "digital navigation" based on the feedback received from participants during the pilot of the survey.

Interview

We conducted semi-structured interviews via videoconference (see Appendix B). Participants provided in-depth responses related to their health system or clinic's digital navigation services, workflows, strategic approaches, and priorities. We compensated participants with a \$25 gift card for their participation.

Analysis

We reviewed survey results to identify and remove fraudulent ("bot") responses using a standardized process developed by the study team to ensure data integrity and validity. Two researchers independently coded each interview and thematically analyzed them using a mixed inductive-deductive approach to ensure a comprehensive understanding of the data. We adapted the codebook (see Appendix C) using the Consolidated Framework for Implementation Research (CFIR) framework to provide a structured and systematic analysis.¹⁷ The University of California San Francisco Institutional Review Board approved the study (IRB# 23-39284).

Results

Survey: Learning from Implementers of Digital Navigation

Participating Health Systems and Patients They Serve

Participants from diverse safety net health systems across California completed the survey, with 50 total respondents including 36 from federally qualified health centers (72%), 12 from state or county-funded systems (24%), 12 from not-forprofits (24%), 8 from academic health systems (16%), and 2 from Veterans Affairs (VA) (4%). Urban, suburban, and rural locations were self-reported based on the adapted population criteria set by the 2023 Rural-Urban Continuum Codes.¹⁸ We had 38 responses (76%) from urban locations (i.e., counties in metropolitan areas of 250,000 population to 1 million or more or counties in metro areas of fewer than 250,000), 18 (36%) from suburban (i.e., a region with an urban population of 2,500 to 20,000 or more), and 15 (30%) from and rural sites (i.e., a region with less than 2,500 urban population). Figure 1 displays the spread of participating healthcare systems across the state of California. Participants' health systems served an average of 356,385 unique patients with varying racial and ethnic demographics, including Latinx, White, Asian, African American, and Native American populations. Many patients spoke LOE, primarily Spanish, Chinese, Tagalog, and Vietnamese. Health systems serve diverse patient populations across age groups



and offer various medical specialties. Participants indicated acceptance of various insurance types: Medicaid (47 participants, 94%), Self-pay/uninsured (45 participants, 90%), traditional Medicare (42 participants, 84%), Medicare Advantage plan (33 participants, 66%), city or county safety net insurance (33 participants, 66%), and commercial insurance plans (29 participants, 58%). Table 1 lists self-reported characteristics of participants' healthcare organizations and patient demographics.

Characteristics	% (n)	Characteristics	% (n)
Types of Health System (N=50 participants)		Accepted health payors (N=50)	
Federally Qualified Health Center	72% (36)	Medicaid (e.g., Medi-Cal in California)	94% (47)
Non-federal government (e.g., state or county funded institution)	24% (12)	Uninsured / self-pay	90% (45)
Not-for-profit	24% (12)	Traditional Medicare	84% (42)
Academic	16% (8)	Medicare Advantage plan	66% (33)
Veterans Affairs (VA)	4% (2)	City or county safety net insurance (e.g., Healthy San Francisco)	66% (33)
For-profit	0% (0)	Commercial insurance plan	58% (29)
Location of Health System (N=50)		Preferred languages spoken by patients at their health system (N=48)	
Urban	76% (38)	English	88% (42)
Suburban	36% (18)	Spanish	85% (41)
Rural	30% (15)	Chinese (Mandarin or Cantonese)	48% (23)
Number of Healthcare clinicians (N=48)		Tagalog	46% (22)
100+ clinicians	40% (19)	Vietnamese	46% (22)
51-100 clinicians	17% (8)	Arabic	35% (17)
21-50 clinicians	19% (9)	Persian/Iranian/Farsi	31% (15)
11-20 clinicians	6% (3)	Other (e.g., Russian, Mixteco, Samoan, Urdu, French, Punjabi, Portuguese, Mam, Hmong, etc.)	31% (15)
1-10 clinicians	8% (4)	Hindi	29% (14)
Served 25% or more non-English speaking patients ¹ (N=48)	66% (33)	Korean	21% (10)
Serve 25% or more of the following Racial/Ethnic groups in their patient population ² (N=48)		Patient population served (N=48)	
Latinx	63% (30)	Adults (Ages 18-64)	94% (45)
White	54% (26)	Elders (Ages 65+)	92% (44)
Asian	19% (9)	Children & Adolescents	88% (42)
African American/Black	15% (7)	Average unique patients served (N=50)	356,385
Native American	2% (1)		

How Digital Navigation Programs Are Implemented

Forty participants (80%) reported that their health system has implemented or attempted to implement a digital navigation program. Of those, 22 (55%) provided services to build new digital skills or increase digital literacy, 16 (40%) reported they support patients in accessing the internet or Wi-Fi, 11 (28%) reported providing hardware or software technical support for those who already have access to it, and 7 (18%) reported they support patients

¹ This category includes participants who reported their health system serves more than a quarter of their patients who are non-English speakers. ² Participants reported their health system serves more than a quarter of patient in these specific racial/ethnic groups.

in obtaining internet-enabled devices. Other digital navigation programs include supporting patients by providing demonstrations to access video visits, preparing them for the telehealth visit, or connecting them with the online patient portal. See Appendix D for a detailed breakdown of digital navigation program implementation from survey responses.

Participants reported that patients are referred to digital navigation programs at their health system by a clinician or healthcare staff and/or are contacted prior to their telehealth appointment. Patients also self-direct to front desk staff or providers or call the clinic to get support with their telehealth appointments. Thirty-four participants (85%) reported that their health system provides digital navigation, whereas 8 (20%) reported community-based organizations or non-profits, 5 (13%) reported government programs, 4 (10%) reported industry/private companies, 3 (8%) reported payor or insurer, and 1 (3%) identified the public library to provide digital navigation services to their patient population.

KEY FINDING 1: 80% of surveyed healthcare organizations provided some variation of digital navigation; however, the types of services were heterogeneous.

Participants reported that the digital navigator role was provided by various staff, including medical assistants (24 participants, 60%); front desk (19 participants, 48%); nurses such as Registered Nurses and Licensed Vocational Nurses (17 participants, 43%); community health workers (17 participants, 43%); prescribing clinicians such as a physician, nurse practitioners, physician assistant, or pharmacist (14 participants, 35%); behavioral health clinicians such as psychologist, Master of Social Work and Licensed Clinical Social Worker (10 participants, 25%): nonprofit staff (4 participants, 10%); and librarian (1 participant, 3%). Other reported roles include volunteers. technology advocates or coordinators/specialists, case managers, IT digital technology support, or electronic health records teams.

Patients engage with digital navigation programs mainly individually through virtual (34 participants, 85%) or in-person (32 participants, 80%) modes of communication with the above digital navigators. For



example, participants reported that a dedicated staff member calls patients prior to their appointment for a reminder and provides additional digital support to join the telehealth visit.

Clinic staff, including front desk personnel, medical assistants, and licensed vocational nurses, often assisted patients with downloading mobile applications, setting up usernames and passwords, and providing instructions on navigating the mobile app to make appointments, send messages to their care team, and review health records. Although less common, some organizations also offered group education sessions to help patients with digital navigation for their telehealth appointments or patient portals. Specifically, 11 participants (28%) reported in-person group sessions, and 9 participants (23%) reported virtual group sessions as ways to engage their patients with digital navigation services.

Survey participants reported several challenges in implementing digital navigation programs within their health systems. These included scalability and adoption, particularly when organizational culture is resistant to change. Additionally, gaining buy-in from both patients and staff proved difficult, especially in organizations where

telehealth was a new concept. Participants noted that some patients may also lack familiarity with navigating computers or smart devices and may have low digital literacy.



Limited or nonexistent funding posed another significant barrier, as digital navigation is not a billable service due to inadequate reimbursement policies. Staffing shortages further compounded the issue, with some roles that are expected to perform digital navigation lacking the technical support necessary to incorporate these tasks into their standard workflow. Volunteer-based programs offered moderate success but were often not accessible to most of the patient population and could not provide real-time digital navigation support.

Successful digital navigation programs were characterized by having dedicated team members and being fully integrated into the health system's electronic medical record systems. However, some organizations reported additional challenges such as lack of space, equipment, and staff, making it difficult to support patients with digital navigation.

KEY FINDING 2: There is limited screening for digital navigation needs and variable prioritization of digital navigation.

Digital Access and Inclusion Screening of Patients

Participants were surveyed regarding whether their health systems screen patients for digital access and inclusion, encompassing device access, internet availability, and skills for virtual health services (e.g., patient portals or remote visits). Out of 50 respondents, 25 participants (50%) indicated that their organizations do not



currently conduct such screenings, or they are unaware of any screening practices. Nineteen participants (38%) reported current screening practices, while 6 participants (12%) plan to implement screening in the future. Among those clinics that currently screen or plan to screen, 21 assess device access (84%), 20 assess internet access (80%), and 20 evaluate patient preferences for virtual visits or digital communication (80%). Other areas screened include technology skills/digital literacy (15 participants, 60%), availability of digital support within the household (12 participants, 48%), language proficiency (10 participants, 40%), telehealth suitability of the patient's location (10 participants, 40%), accessibility needs (e.g., hearing, vision) (7 participants, 25%), cognitive ability (4 participants, 16%), and education level (3 participants, 12%).

Digital inclusion screening methods varied such that 9 clinics (36%) use internally developed tools, 9 (36%) do not use a structured screening tool, 2 (8%) use external standardized tools, and 1 (4%) has adapted a standardized tool for their patients. For a detailed overview of how health systems screen for digital inclusion, refer to Table 2. These screening domains are important as they best identify patients who need digital navigation services.

Table 1. Scre	eening patient	s for digital	access or	inclusion.
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	% (n)		% (n)
Digital access or inclusion screening includes (N=25):		Screen patients for digital access or inclusion (N=50)	
Access to a digital device (e.g., smartphone, laptop, tablet)	84% (21)	No / Don't know	50% (25)
Internet access	80% (20)	Yes	38% (19)
Patient preference or interest in video visits, phone visits, or digital communication	80% (20)	Not currently, but planning to	12% (6)
Technology skills/digital literacy	60% (15)		
Support from someone to assist with technology issues	48% (12)	Source of digital inclusion screening questions (N=25)	
English language proficiency	40% (10)	Internally developed tool	36% (9)
A private location conducive to a telehealth visit	40% (10)	Health system does not use a structured screening tool	36% (9)
Need for accessibility services (e.g., hearing, vision, etc.)	25% (7)	Standardized screening tools developed outside their health system	8% (2)
Cognitive ability	16% (4)	Adaptation of a previously standardized screening tool	4% (1)
Education level	12% (3)		

Health System Priorities for Digital Navigation Programs

Independent of the screening modality, participants were asked to rank the patient populations their health systems prioritize for digital navigation (Figure 2). The rankings, from highest to lowest priority populations, were as follows: older adults, patients with limited English proficiency, patients from racial/ethnic minorities, patients with physical disabilities, patients from rural areas, and patients with cognitive disabilities. Participants reported that these groups face significant barriers to attending inperson appointments due to limited mobility, other transportation options. and logistical challenges. By increasing access to telehealth or virtual visits with digital navigation, healthcare providers can improve access to care for these populations. Additional prioritized populations included patients with high-risk or comorbid health

Figure 2. Populations to prioritize for digital navigation.



conditions, low-income patients, individuals experiencing homelessness, those lacking childcare, and patients unable to commute to the clinic.

KEY FINDING 3: Older adults and patients with limited English proficiency are recognized as being at risk of being excluded or left behind and need to be prioritized for digital navigation programs.

Furthermore, older adults, in particular, face challenges with mobility. transportation, and accessing healthcare facilities, making telehealth an essential tool to ensure they receive timely care without the need for travel. Participants provided examples of support mechanisms for these populations. including interpretation services, assistance with connectivity and navigating video visit platforms, transportation services, remote monitoring devices such as glucose monitors, guidance on navigating patient portals, and general technical support. These populations may be at the greatest risk for suffering due to the digital divide and in most need of digital navigation services.



Participants reported the prioritization of digital navigation programs within their health systems on a scale ranging from "a great deal" to "not at all" (Figure 3). The responses indicated that many participants rated the priority given to digital navigation programs as "a little" (13 participants, 27%) to "a moderate amount" (14 participants, 29%).

Interview: Learning from the Leaders in Digital Navigation

We conducted a thematic analysis of 16 interviews involving three distinct groups: 9 individuals in leadership positions, 6 support staff (i.e., who did not engage in direct digital navigation but assisted with its implementation), and 1 digital navigator (i.e., who was specifically dedicated to supporting patients with digital navigation). Our analysis identified a range of successful digital navigation models as well as facilitators and barriers to their implementation. The key findings are summarized in Table 3.

Theme	Quote
"The Who" - Who are the Digital Navigators?	"The health tech navigators and the community health worker program have really been the secret sauce because they are the ones who can really spend time with patients and build confidence and have bridged the digital divide in our populations that are limited in English proficiency."
"The What" - What do they do and how do they do it?	"The health tech navigators are physically at each of our sites, and they are helping patients enroll in the portal, understand how to view their information, and how to connect with their care team." "The community health worker goes around [the waiting rooms] with a little portable laptop and she signs [the patients] up for the portal."

Theme	Quote
Facilitator: Data-Driven Improvement	"We essentially do a three-question screening process that just asks whether somebody has a digital device that could use video or could use the patient portal. Whether they have sufficient bandwidth, broadband, or have internet."
Barrier: Lack of Staff Readiness and Training	"I think part of it is that [my physician colleagues] see [using video visits] more as a burden because there are so many tech issues that can happen along the way, and they don't have the support system to run through it."
Barrier: Lack of/need for Reimbursement Policies	"[Because of no financial support for digital navigation], the telehealth support pool is all volunteer-based and we don't have an implementation team to help with a lot of this."
	"We have to figure out how to [do reimbursement for RPM work because] we can get reimbursed for it and then we can actually properly support a digital health advocate on the team."

KEY FINDING 4: Successful digital navigation programs require active engagement from leadership.

Facilitators of Digital Navigation Support

Digital navigation leaders emphasized that both the COVID-19 public health emergency and engaged leadership were critical facilitators in fostering investment in digital navigation.

"I think our medical director and our behavioral health director wanted to make sure that there was a way of being able to serve our patients. So, I think those two folks were the catalysts to make [a telehealth office in the clinic] happen." (Participant 51, Enhanced Care Manager)

"I think having executive leadership support is really important, and I think it's actually written into our strategic plan for this final time too, like the innovations department existence and helping patients bridge the digital divide." (Participant 02, Telehealth Department Head/Physician)

KEY FINDING 5: There are diverse models of digital navigation, including engaging external partners such as community-based organizations or volunteer programs.

Digital Navigation Models

Interviews revealed a variety of potential implementation models for digital navigation, indicating that digital navigation can be flexible to adapt to a clinic's constraints and priorities. The following range of implementation models are proposed for consideration across California's varied safety net:

- **Integrated Model:** Collaborative care where all members of the healthcare team share the responsibilities of supporting patients with digital navigation.
- The Solo Champion or Cheerleader: A dedicated individual with specific expertise who advocates for and supports digital navigation.
- The Rural Access Touch Point: A focal sight with enhanced digital access in rural areas that has fortified internet and device availability.
- Community Health Worker or Mobile Digital Navigator Model: Utilizing community health workers or mobile navigators to assist with digital navigation across multiple sites in a network.
- Virtual hub or IT Access hub: Establishing centralized virtual or IT hubs to facilitate digital access via referral and remote support.

 External Partnerships: Collaborating with external entities such as volunteer programs, libraries, and health fairs to offer digital navigation outside clinic walls.

Although clinics have established many designated digital navigator roles, at some locations, this position was more seamlessly integrated into the clinic staff and workflow. Two distinct digital navigation models were identified: (1) the "integrated" approach, where the entire clinical team's culture and training facilitate multiple touchpoints for patients to receive digital support, and (2) the "hub" approach, which involves a centralized resource center that can be accessed from various points within the care deliverv site.

> "Patients get put in Room 1, 2, 3, etc. The patient shows up and gets put into a breakout room. I, as a co-host, can see into these breakout rooms and then join and join back out again. A nurse can go in and out, and then we can communicate by bringing [other health professionals] in. That concept is more than just telehealth. It's also a collaborative visit." (Participant 15, CEO/Physician)

> "It's called tech hubs. So, through our community services department, they have done office hours in a park and then they started holding these tech workshops just for the general community more about really basic things." (Participant 02, Telehealth Department Head/Physician)

> "Another one is the development of a really great comprehensive program called virtual health resources, and these are essentially genius bars. So, having staffed with really knowledgeable, helpful, and friendly folks that can serve not just veterans and their family members but also [healthcare organization's] staff in the use of any of these [telehealth and digital health tools]." (Participant 60, Implementation Lead)



MODELS OF DIGITAL NAVIGATION

INTEGRATED APPROACH

EVERYONE SHARES THE CARE

Everyone who interacts with the patient (e.g., physician, nurses, MA's, front desk) all have a part in providing digital support.



EMBEDDED CHAMPION

This individual pushes the organization to implement telehealth support and drives strategic changes.

HUB APPROACH

VIRTUAL SUPPORT HUB



These hubs are centers that have designated non-clinical staff who provide digital navigation.

HEALTH TECH NAVIGATORS

These individuals (e.g., community health workers) directly work with patients to provide digital navigation.

BOTH INTEGRATED AND HUB APPROACH



This location is the central location with broadband and internet access where patients can access their telehealth visits.

Digital navigators frequently collaborate with a support team that, while not directly involved in providing digital navigation services, plays a crucial role in these efforts. This team typically includes program managers, Information Technology departments, quality improvement committees, leadership, and workflow coordinators. Digital navigators are primarily responsible for increasing patients' awareness of online portals, enrolling patients in these portals, and guiding them through a mock video visit process prior to their actual appointments. Additional, though less common, duties include following up with patients who have not yet enrolled in the portal to offer assistance and informing patients about the availability of video visits to promote the conversion of telephone appointments to video consultations.

"We have our operations team and we're a total of three workflow coordinators, and then we have our boss. She's very involved also. Our communications coordinators are a huge help as well. We have our

referral coordinator, who sometimes, is a valuable help to us as well when it comes to telehealth, so I would say a group of eight solid people that are really invested in the whole [telehealth] process and the whole program [for all 17 sites.]" (Participant 08, Workflow Coordinator)

"Our IT department had put together some tips, and probably [healthcare organization] as well, and then if there were any other issues, [the case manager] could reach out to me and we'd just figure it out." (Participant 39, Director of Program Management)

External Partnerships

Clinics also engage in external partnerships, such as collaborations with university pre-health students and libraries, to enhance their digital navigation services.

"Through the grant, they connected us with a class at [academic institution], which focused on digital literacy and digital telehealth. It's a group of students of 30 to 40 and they're kind of dispersed amongst other health centers. I believe some are working with [Southern California county], some are working with [Northern California health organization], and we have our partnership with them as well." (Participant 09, Specialty Care Program Manager)

"We, at that time, the [library] was open, and we had partnered with them, and they actually talked to people about enrolling in the portal and would actually go to the floors [if a patient was in a hospital bed] and meet with patients to talk about the portal." (Participant 44, Chief Medical Information Officer/Physician)

Training of Digital Navigators

Training for digital navigators varies widely, ranging from ad hoc education to structured curricula. Some sites reported that digital navigators "learned on the fly," leveraging their personal backgrounds and job experience (e.g., IT or customer service) to familiarize themselves with existing general guidelines provided by the clinic. In contrast, sites with more formal training implemented teaching workshops conducted mock calls with digital navigators and collaborated with external organizations to develop training curricula. Additionally, some sites employed an iterative approach, testing and revising their guidelines based on feedback from digital navigators.

"I don't think [there was any training.] I think we all trained together, and I think it was like, "Hey guys, there's a Zoom button and then you click on it" (Participant 54, Wellness Champion/Lead Physician)

"I would say about 80% to 90% of [student volunteers] had asked me to do a few trial calls with them, pretending I was the patient and then they were the person calling. So, we did a lot of one-on-one training to get them prepared for what kind of questions might come up. I do almost like office hours with our students as well." (Participant 09, Specialty Care Case Manager)

"So, on the provider side, at least with the [healthcare organization], we have to do telehealth training. Some elements of talk, training, so we're all trained up in advance." (Participant 60, Implementation Lead)

Readiness/Buy-In of Digital Navigators

The readiness of digital navigators to provide digital navigation support varied considerably, ranging from high motivation to resistance from the clinic team. Those who expressed readiness often attributed their motivation to personal interactions with patients and a recognition of the benefits of telehealth, particularly in communities with limited resources. Additionally, the motivation of digital navigators was influenced by the alignment of the leadership's mission and the clinic's culture with the adoption of telehealth practices.

"[Telehealth] is of great value; I mean it really is. I mean honestly, for us here, there are people who work here who live 45 minutes up a mountain just to come to work, so it's pretty remote, so it's an important service." (Participant 51, Enhanced Care Manager)

"Call center staff are on the frontlines of it. Our physicians are starting to champion this month, and really, it's not an issue of individual interest. I think all our staff are very passionate and want [to increase the number of video visits.]" (Participant 16, Program Coordinator of Ambulatory Care Services)

"Having that buy-in from our providers is crucial because if they don't like it, it's not going to happen. Some of our providers, like our patients, they're not very tech-savvy. They kind of learn more towards the easier way, which is the telephone option, unfortunately, but it's that provider buy-in that I feel like would benefit everybody." (Participant 08, Workflow Coordinator)

KEY FINDING 6: Data-driven digital navigation program implementation is necessary to equitably connect digital navigators to patients.

Connecting Patients to Digital Navigators

Patients requiring additional digital navigation support are identified either through intermediary roles (e.g., physicians during patient visits and front desk staff during appointment scheduling) or via a screening process conducted before appointments. For instance, one physician reported screening for digital literacy during visits and initiating electronic referrals to a pool of student volunteers for digital navigation assistance.

"[Connecting the volunteer to the patient] is a referral through Epic, and these patients get placed into the [telehealth] pool. Then the [student] ambassadors will take those patients off that pool list and call them." (Participant 14, Director of Telehealth/Physician)

"We have these students that actually call our patients ahead of their visit to actually test their device, to answer any questions that they might have in regard to the telehealth visit. By the time the visit comes, the patient should be ready with all of these things that are going to happen throughout the visit, so they know kind of how to navigate through the visit." (Participant 08, Workflow Coordinator)

Clinics utilizing a data-driven approach to enhance their digital navigation support employed various tools such as screening processes, post-visit surveys, and visit trackers. Screening questions typically assessed whether patients possessed a digital device suitable for video visits or accessing patient portals, had a sufficient internet connection, were comfortable with text messaging, and were familiar with applications like Facebook or WhatsApp. A participant's healthcare organization, which involved workflow coordinators in their digital navigation support, conducted post-appointment surveys to gather feedback on technological challenges faced by patients. Notably, one interviewee from an organization that tracked reasons for calls to their digital navigation support center observed that most inquiries were related to retrieving forgotten usernames or passwords, while more complex issues, such as billing questions, were infrequently raised.

"We had a survey going out to our patients. We would call our patients and ask them how the visit went. Was it challenging? What was challenging about it? We kind of started gathering that information and started trying to implement new workflows because of it." (Participant 08, Workflow Coordinator)

Strategic Recommendations

Telehealth is poised to remain a fundamental component in addressing health equity, both during and beyond the COVID-19 pandemic. However, not all healthcare organizations have seamlessly adapted to this innovation. Thus, we urge leadership to continually recognize the value of telehealth and prioritize its needs in their health systems' strategic plans. This should include a dedicated role for digital navigation, ensuring healthcare organizations are equipped to effectively implement and sustain telehealth. Below, we summarize key lessons learned (see Figure 4) as strategic actionable steps and policy recommendations:



Advocate for New Category of Digital Navigation Reimbursement. Leaders should advocate for adequate reimbursement policies for telehealth visits. Without sufficient reimbursement from insurers, telephone, and video consultations will not be sustainable for healthcare systems.



Develop Standardized Telehealth Screening. Leaders should implement standardized screening processes to assess patients' telehealth needs. This includes evaluating broadband/internet access, availability of digital devices, and digital literacy levels.



/// ###### **Incorporate Multiple Languages in Digital Tools.** The development of telehealth and digital tools should include languages other than English. Language-concordant tools will ensure that clinics can better serve patients who speak languages other than English, thereby promoting equitable access to telehealth services.

Adopt an Effective Digital Navigation Model. Healthcare organizations should select a digital navigation model that best fits their clinic to address the digital divide. The two primary models are:

- Integrated approach: In this model, all clinic staff (e.g., physicians, nurses, medical assistants) participate in digital navigation roles. This approach is employed by LA County (see Figure 5).
- Hub approach: In this model, digital navigation roles are distinct from clinic staff roles, with a centralized location where patients, caregivers, and staff can receive digital navigation support. An example includes the community health worker model which includes a centralized referral source. The VA utilizes this approach (see Figure 6).



Develop a Diverse Workforce for Digital Navigation. Expand workforce development to support diverse cultural needs by creating designated digital navigation roles, similar to the community health worker model but specifically tailored for digital navigation. This approach would enhance the ability to address various cultural and linguistic barriers to digital health access.



Foster Collaboration with Community-Based Organizations. Establish partnerships with community-based organizations to enhance the outreach and effectiveness of digital navigation services. Collaborations with local entities can facilitate trust-building and provide additional support resources for patients navigating telehealth services.



Promote Continuous Training and Support for Digital Navigators. Implement ongoing training and professional development for digital navigators to ensure they remain current with technological advancements and best practices. This continuous support will help maintain high standards of digital navigation and adaptability to evolving telehealth needs.



Implement Data-Driven Evaluations. Sites should adopt data-driven evaluation methods to identify and target individuals most in need of digital navigation support. Such approaches should consider factors such as age, race, ethnicity, and language to ensure equitable access to telehealth services.

Policy recommendations to enhance telehealth services emphasize the need for legislative support to promote telehealth equity by addressing barriers and ensuring insurance coverage. Advocating for increased funding and financial incentives for digital health initiatives, particularly for underserved populations, is crucial. It is also essential to uphold robust privacy and security standards to protect patient data and build trust in telehealth services. Additionally, policies should facilitate greater access to technology and high-speed internet for underserved groups to bridge the digital divide and ensure comprehensive engagement in telehealth.

Figure 4. Road map with key "ingredients" to build successful digital navigation programs.



ROAD MAP TO BUILDING DIGITAL NAVIGATION PROGRAMS



The Time is Now to Close The Digital Divide

- Leadership must be engaged in digital equity through strategic plans and virtual visit reimbursement advocacy
- Leadership must advocate for staff readiness and buy-in

Focus On A Digital Navigation Model That Works For Your Site

- Sites should identify which digital navigation model works best for their clinic
- Leverage community partnerships such as volunteers/libraries

Data-Driven Implementation

- Standardize screening and referral processes to identify which patients need more digital support
- Equity-driven evaluation by race/ethnicity/language/age



Figure 5. Example of a health system that uses the integrated approach in digital navigation.

Diverse Digital Navigation Models: The Integrated Approach Los Angeles County

(Harbor-UCLA and UCLA)

LA County health system includes 25 multi-specialty clinics and 4 hospitals ranging from High Desert to Long Beach. Efforts in telehealth include digital navigation of the patient portal, increasing portal enrollment, and improving staff workflows to better manage the patient portal.

Leadership Support

Portal enrollment efforts increased during the pandemic due to the readiness and buy-in of leadership and staff. Increased portal enrollment and engagement was part of the system's strategic goal, and included collaboration between leaders and staff to review data and existing workflows to meet their telehealth goals.

Digital Navigators

Digital navigators were community health workers who were embedded into the clinic workflow by attending clinic meetings. This integration into clinic workflow allowed staff to know all the navigators. Clinic staff referred patients to navigators through the EHR or work phones. Digital navigators were almost 100% bilingual.

Data-Driven Improvement

The health system has data on enrollment metrics, including which patients are enrolled or not. Clinics can filter by race, ethnicity, language, and age of patients to better understand which populations require more digital navigation support. With this data, clinics can modify their strategies to better target these populations.

> "Before this work, we were only around maybe 5% of our Spanish speakers were on the portal, and now we're much above 20% just in two years."

Figure 6. Example of a health system that uses the hub approach in digital navigation.

Diverse Digital Navigation Models: The Hub Approach

The Veterans Affairs

The VA has 172 medical centers. Efforts in digital navigation support include an interactive, 8-day curriculum "virtual care university" to increase staff digital literacy and development of virtual health resource centers ("genius bars") to provide in-person telehealth support. Currently, 45 sites have live virtual health resource centers with a goal of 100% of VA sites having this center.

Virtual Health Resource Centers

Virtual health resource centers are for both staff, patients and their caregivers. About 75% of individuals who utilize the centers are patients and the rest are staff. The centers provide one-on-one support with helping patients get set up for video visits or connecting to digital devices. These centers also provide training events for staff.

"[One VA site] has a mobile unit because they're like "Hey, we have this mobile van, can we use this as a mobile virtual resource center to help folks in this rural community?"

Virtual Care Best Practices Guides

The VA hosts a monthly "connected care community practice" to increase digital literacy. This includes outreach toolkits, VA mobile health practice guide, educational videos and flyers. The VA has support for video visits, secure messaging, patient-facing platforms, remote patient monitoring devices, and more.

Data-Driven Improvement

The VA tracks data from the virtual health resource centers, such as reason for visits, patient satisfaction, and who utilizes these centers. This data helps build the infrastructure to allow individuals access the resources they need and to train staff to be able to provide digital navigation support.

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Appendix

A. Survey

- 1. What is the title of your role/position in your health system or organization?
- 2. Which of the following best describes the health system or organization that you are part of? Select all that apply.
 - Academic
 - □ Not-for-profit
 - □ For-profit
 - □ Non-federal governmental (e.g., state- or county-funded institution)
 - □ Federally Qualified Health Center (FQHC)
 - □ Veterans Affairs (VA)
 - □ Other, please specify: _____
- 3. Does your health system screen patients for barriers to digital access or inclusion? This may include but is limited to, screening for access to devices, the internet, and/or skills necessary to participate in virtual health services such as patient portals or remote visits.
 - □ Yes
 - □ No
 - □ Not currently, but planning to
 - Don't know
- 4. In your health system's digital inclusion screening, which of the following do you screen for? Select all that apply.
 - Access to a digital device (e.g., smartphone, laptop, tablet)
 - □ Internet access
 - □ Technology skills/digital literacy
 - □ Support from someone to assist with technology issues
 - □ English language proficiency
 - □ Educational level
 - □ Cognitive ability
 - D Patient preference or interest in video visits, phone visits, or digital communication
 - □ A private location conducive to a telehealth visit
 - □ Need for accessibility services (e.g., hearing, vision, etc.)
 - □ Other, please specify: ____
- 5. What is the source of your digital inclusion screening questions? Select all that apply.
 - □ Standardized screening tool developed outside your health system
 - □ Adaptation of a previously standardized screening tool
 - □ Internally developed tool
 - Our health system does not use a structured screening tool
 - Don't know
 - □ Other, please specify: _____
- 6. What validated screening tool or adaptation of the validated tool do you use?
- 7. Has your health system implemented any telehealth support programs or attempted to?
 - □ Yes
 - □ No
 - □ Don't know

- 8. What type of service(s) does the telehealth support program provide to your patient population? Select all that apply.
 - Accessing Internet/Wi-Fi
 - □ Obtaining an Internet-enabled device
 - □ Building new digital skills or increasing digital literacy
 - □ Providing hardware and software technical support for those with existing access
 - □ Other, please specify: _
- 9. How does a patient get connected to receive telehealth support services in your health system?

10. Which type of organization provides telehealth support services in your health system? Select all the apply.

- □ My healthcare system/organization
- Community-based organization or nonprofit
- □ Library
- Payor or insurer
- □ Government program
- □ Industry/private company
- □ Other, please specify: _____
- 11. In your health system, who is in the telehealth support (i.e., digital navigator) role? Select all that apply.
 - Medical assistant
 - □ Front desk staff
 - D Nursing staff (e.g., RNs, LVN, CRNs
 - Prescribing clinician (e.g., physician, nurse practitioner, physician assistant, PharmD)
 - □ Behavioral health staff (e.g., psychologists, MSWs, LCSWs)
 - □ Community health worker
 - □ Nonprofit staff
 - □ Government employee
 - □ Librarian
 - □ Other, please specify: _____

12. How can patients engage in your health system's telehealth support services? Select all that apply.

- □ In-person, individually
- □ Virtual, individually
- □ In-person group sessions
- Virtual group sessions
- □ Other, please specify: ____
- 13. Please share your experience with telehealth support program implementation. What has been challenging? What has made it work?
- 14. How much is the implementation of a telehealth support program a priority in your health system?
 - □ Not at all
 - □ A little
 - □ A moderate amount
 - □ A lot
 - □ A great deal
- 15. Please name the community-based organizations or nonprofits your patients can access for telehealth support.
- 16. Please describe other types of organizations that provide telehealth support in your health system.
- 17. Please describe in detail any support activities your patients can receive to access telehealth or telemedicine (e.g., clinical visits that happen virtually or remotely).

- 18. Please describe any support activities your patients can receive to access patient portals or electronic health records.
- 19. Please describe any other ways your patients can receive digital health services (e.g., remote monitors, wearables, etc.) at your health system.
- 20. For your health system, which patient populations are the highest priority to target for telehealth support programs (e.g., digital navigation)? (Please rank from 1-7 where 1 = highest priority and 7 = lowest priority)
 - D Patients with limited English proficiency
 - □ Older adults
 - □ Rural areas
 - D Patients from racially or ethnically minoritized groups
 - □ Patients with physical disabilities
 - Patients with cognitive disabilities
 - □ Other, please specify:
- 21. Why did you rank the groups above in the order that you did? Feel free to add more context here.
- 22. What specific types of telehealth support or services are needed for the populations you ranked above? (e.g., in-language services)
- 23. Which type of locations does your health system serve? Select all that apply.
 - □ Urban: Counties in metropolitan areas of 250,000 population to 1 million or more; Counties in metro areas of fewer than 250,000 population
 - □ Suburban: Urban population of 2,500 to 20,000 or more, adjacent or not adjacent to a metro area
 - □ Rural: Completely rural or less than 2,500 urban population, adjacent to a metropolitan area
- 24. Approximately how many unique patients does your health system serve?
- 25. Please approximate the race/ethnicity demographic breakdown of your patient population.

	0-25%	26-50%	51-75%	76-100%
African American/Black				
Asian				
Latinx				
Native American				
White				
Other, please specify:				

- 26. Please select the approximate percentage of patients in your health system who are non-English speakers.
 - □ 0-25%
 - □ 26-50%
 - □ 51-75%
 - □ 76-100%

27. Please select the preferred languages spoken by patients in your health system. Select all that apply.

- □ English
- □ Spanish
- □ Chinese (Mandarin or Cantonese)
- □ Tagalog
- Vietnamese

- D Persian/Iranian/Farsi
- □ Korean
- □ Hindi
- □ Arabic
- □ Other, please specify: _____
- 28. What types of patients does your health system serve? Select all that apply.
 - □ Children & Adolescents
 - □ Adults (Ages 18-64)
 - □ Elders (Ages 65+)

29. Approximately how many healthcare clinicians provide care within your health system?

- □ 1-10 clinicians
- □ 11-20 clinicians
- □ 21-50 clinicians
- □ 51-100 clinicians
- □ 100+ clinicians

30. Which specialties & disciplines are represented in your health system?

- □ Family medicine
- □ Internal medicine
- □ Obstetrics/Gynecology
- □ Pediatrics
- □ Psychiatry/psychology/behavioral health
- □ Other specialty/discipline
- 31. What types of payors does your health system accept? Select all that apply.
 - □ Medicaid (e.g., Medi-Cal in California)
 - □ Traditional Medicare
 - □ Medicare Advantage plan
 - □ Commercial insurance plan
 - □ City or county safety net insurance (e.g., Healthy San Francisco)
 - □ Uninsured / self-pay
 - Don't know
 - □ Other, please specify: _____
- 32. Does your health system partner with community-based organizations (CBOs) or payors (insurers, health plans, etc.) on telehealth support programs? Rank from 0-10.
- 33. If yes, please name the CBOs or payors and describe the nature of your partnership.
- 34. Please expand on any successes or barriers your organization has had regarding telehealth support programs or services.
- 35. Did you previously complete the Connected Care Accelerator Equity Collaborative Equitable Telehealth Practices Assessment in 2022?
 - □ Yes
 - □ No
 - Don't know
- 36. Please select how well the following are implemented in your health system.

	Poorly	Not Well	Neutral	Well	Very Well	N/A
Telehealth for patients (e.g., IT staff and staff roles that support patients)						
Patients are informed of options for accessing care (i.e., virtual, remote, in-person)						
Patients are screened for digital barriers (e.g., not comfortable using tech, patients do not have stable Wi-Fi, limited access to tech)						
There is support for patients without internet connectivity						
There is support for patients who do not have a device						
Community needs and equity are accounted for in strategic planning for telehealth operations and investments						
Resources are allocated towards strategies to improve equity in access to telehealth care						
There are telehealth processes and outcome metrics in						
Telehealth process and outcome metrics are segmented by race & ethnicity						
Telehealth process and outcome metrics are segmented by language preference						
Telehealth process and outcome metrics are segmented by other subpopulations relevant to your health setting						

B. Interview Guide

- 1. Can you please describe your role with respect to digital health and digital navigation? What is your current clinical workplace setting?
- 2. If the following could not be abstracted from the survey: Please describe the patient population your setting serves (e.g., race/ethnicity, age, geography, insurance).
- 3. What digital health services are available to patients at your clinic? Probes: EHR portals, telehealth/telemedicine, remote monitoring, mHealth/texting, video/audio visit technology, and health apps.
- 4. How does your site identify patients who need support with accessing these digital health services? Probes: Screening tools? Looking at utilization or QI data?
- 5. The interviewer will ask the below based on which modalities were listed in question #2.
 - a. How does your health system support patient access to telemedicine?
 - b. How does your health system support patient access to electronic health portals?
 - c. How does your health system support patient access to digital self-monitoring tools?
 - d. How else does your health system support patients to use digital health technology?
- 6. If the roles are not described above, who (what roles or staff positions) at your site offers digital navigation to patients and caregivers? Probes: front desk, providers, community health workers, MAs
- 7. What patient populations do you worry might be left behind that cannot access your current digital support services? Why did you name those populations? Probes: race/ethnicity, age, language preference, SES, literacy, numeracy, digital literacy, health literacy, sensory impairment (hearing, vision), physical impairments, and minimal caregiving support.
- 8. What community organizations or partnerships are important to help patients access digital health services? Probes: civic partners, and nonprofits/CBOs.
- 9. Do you know of any strategic policies at your organization that are aligned with helping patients access digital access? Probes: prioritize patient access to digital health services in their strategic planning.
- 10. What policy or reimbursement structures have been important to support digital navigation for patients? If none, what would be helpful?
- 11. Are there any priorities in place for digital access given the changes/how digital tools
- 12. Imagine your patients could receive digital health navigation to access the digital health services your site provides. What would this look like, in an ideal state? Feel free to think big!
- 13. In closing, what other thoughts on digital support or digital navigation would you care to offer?

C. Codebook

Construct Name	Sub-construct	Construct Definition: The degree to which
I. INNOVATION DOM	AIN: The "thing" being imp	lemented is "digital navigation."
	Types of digital modalities	
A. Innovation Design	Responsibilities of the digital navigator	The tasks performed by the digital navigator
	Innovation complexity	The innovation is complicated, which may be reflected by its scope, nature, and number of connections or steps.
B. Innovation Cost / Investment		The innovation purchase and operating costs are expensive
II. OUTER SETTING I library, non-profits, e	DOMAIN: The setting in whi etc.)	ch the Inner Setting exists, e.g., community partners (school,
A. Partnerships & Connections		External organizations, academic groups, and community organizations that partner in the work of digital navigation
B. Policies, Laws, Society	Facilitators	Legislation, regulations, professional group guidelines, recommendations, or accreditation standards that support implementation and/or delivery of the innovation.
	Barriers	Lack of policies, and laws that support the innovation.
III. INNER SETTING I	DOMAIN: The setting in which	ch the innovation is implemented, e.g., health system or clinic.
A. Physical	Facilitators	Layout and configuration of clinical space and other tangible features to support digital navigation.
Infrastructure	Barriers	Challenges of clinical layout and configuration of clinical space, or lack of other tangible material features
B. Information	Facilitators	Technological systems support the functional performance of the Inner Setting.
Infrastructure	Barriers	Challenges of technological systems to support functional performance
C. Workflow Infrastructure	Facilitators	Organization of tasks and responsibilities within and between individuals and teams, and general staffing levels that support functional performance of the Inner Setting.
	Barriers	Challenges of workflow design that hinder performance
D. Mission Alignment / Culture	Facilitator	Implementing and delivering the innovation is in line with the overarching commitment, purpose, or goals in the Inner Setting. Implementing and delivering the innovation is important compared to other initiatives.
	Barriers	Innovation implementation and delivery is not in line with Inner Setting purpose
	Facilitator: Funding internal/external	Internal funding is available to implement and deliver the innovation.
E. Available Resources	Facilitator: Materials & Equipment	Supplies are available to implement and deliver the digital navigation intervention.
	Facilitator: Access to Knowledge and Information	Guidance and/or training are accessible to implement and deliver the innovation.
	Barriers: Funding internal/external	Lack of internal funding.
	Barriers: Available Resources	Lack of resources available.

	Barriers: Facilitators' Lack of Access to Knowledge and Information	Limited or no access to guidance/training.
IV. INDIVIDUALS: Th	e roles and characteristics	of individuals.
A. High- and Mid- level Leaders, Opinion Leaders / Engaged leaders/ Decision makers.		High-level Leaders: Individuals with a high level of authority, including key decision-makers, executive leaders, or directors. Mid-level Leaders: Individuals with a moderate level of authority, including leaders supervised by a high-level leader and who supervise others. Opinion Leaders: Individuals with informal influence on the attitudes and behaviors of others.
B. Implementation Facilitators, Leads, Team Members, and Other Team Members		Individuals with subject matter expertise who assist, coach, or support implementation. Individuals who collaborate with and support the Implementation Leads to implement the innovation, ideally including Innovation Deliverers and Recipients.
	Who are the deliverers?	Individuals who are directly or indirectly delivering the innovation.
	Facilitators: Capability and Training	Competence, knowledge, skills, and attributes to support being a digital navigator. Preparation digital navigators receive to support patients
C. Innovation Deliverers	Facilitators: Opportunity and Motivation	The individual(s) has the availability, scope, and power to fulfill the role. The individual(s) is committed to fulfilling Role.
	Barriers: Capability and Training	Lack of competence, skills, knowledge, attributes and lack of preparation that digital navigators receive to support patients
	Barriers: Opportunity and Motivation	Lack of availability, commitment, scope, or power to fulfill role.
	Who are the recipients	Individuals who are directly or indirectly receiving the innovation.
	Needs and Capacity: Facilitators	What characteristics encourage recipients to uptake the innovation delivery? What will be addressed by the implementation and/or delivery of the innovation?
D. Recipients	Needs and Capacity: Barriers	What are the barriers to uptake the innovation or being a part of the program?
	Motivation: Facilitators	Why are patients motivated enough to use digital navigation tools?
	Motivation: Barriers	Why are patients not motivated enough to use digital navigation tools?
V. IMPLEMENTATIO	N PROCESS: The activities a tivities and strategies being	and strategies used to implement the innovation (e.g., Jused to implement the innovation.)
A. Teaming and Communication Among Teams	Facilitators	Join together, intentionally coordinating and collaborating on interdependent tasks, to implement the innovation. There are high- quality formal and informal information sharing practices within and across Inner Setting boundaries (e.g., structural, professional).
	Barriers	Challenging information sharing practices.
B. Assessing Needs	Innovation Recipients	Collect information about the priorities, preferences, and needs of <u>recipients</u> to guide implementation and delivery of the innovation.
C. Process of	Navigator Recruitment	Attract and encourage deliverers to serve on the implementation team and/or to deliver the innovation.
	Recipient Engagement	Attract and encourage <u>recipients</u> to participate in the innovation.
E. Reflecting & Evaluating		Collect and discuss quantitative and qualitative information about the success of implementation and the innovation and modifying/iterating accordingly.
F. Adapting (for future success)		What is needed to improve digital navigation in the future? Innovation for the process or "the thing"

D. Implementation of Digital Navigation Programs

	% (n)
Implemented digital navigation or attempted to (N=50)	
Yes	80% (40)
No	17% (8)
Don't know	4% (2)
Types of digital navigation programs offered (N=40)	
Building new digital skills or increasing digital literacy	55% (22)
Accessing Internet/Wi-Fi	40% (16)
Providing hardware and software technical support for those with existing access	28% (11)
Obtaining an Internet-enabled device	18% (7)
Other (e.g., demonstrations to access video visits, prepare patients for the telehealth visit, connect patients with the online patient portal)	28% (11)
Types of organization providing the digital navigation services (N=40)	
My healthcare system/organization	85% (34)
Community-based organization or nonprofit	20% (8)
Governmental program	13% (5)
Industry/private company	10% (4)
Payor or Insurer	8% (3)
Library	3% (1)
Other (e.g., telehealth ambassadors, volunteers)	15% (6)
In your health system, who is in the digital navigation (i.e., digital navigator) role? (N=40)	
Medical assistant	60% (24)
Front desk staff	48% (19)
Nursing staff (e.g., RN, LVN, CRN)	43% (17)
Community health worker	43% (17)
Prescribing clinician (e.g., physician, nurse practitioner, physician assistant, PharmD)	35% (14)
Behavioral health staff (e.g., psychologists, MSWs, LCSWs)	25% (10)
Nonprofit staff	10% (4)
Librarian	3% (1)
Others (e.g., volunteers, technology advocates, telehealth coordinators/specialists, case managers, IT digital technology support, EHR teams)	48% (19)
Ways patients can engage with digital navigation services (N=40)	
Virtual, individually	85% (34)
In-person, individually	80% (32)
In-person group sessions	28% (11)
Virtual group session	23% (9)