VA Virtual Care Consortium of Research (VC CORE) State of the Art (SOTA) Conference

Pre-Conference Readings: Access Workgroup

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Evidence and Findings on Access to Virtual Care

Thank you for participating in the VA Virtual Care SOTA. Your pre-conference assignment is to review this evidence brief and assigned readings focused on virtual care access and disparities. As you read the brief, we ask that you record your thoughts on the Key Questions below (and in a separate worksheet) to help facilitate and enrich our in-person group discussions. We also encourage you to compose additional discussion questions for the SOTA Conference.

During the SOTA, your workgroup facilitators will lead the group through discussions towards the goal of reaching consensus on what is known (current evidence base) and what needs to be known (knowledge gaps) in key domains, thus allowing us to make and prioritize recommendations for future research related to virtual care. Following discussions, workgroup leads will create a summary of the discussion, agreed upon priorities, and recommendations, which will be presented to all SOTA participants on the second day of the conference.

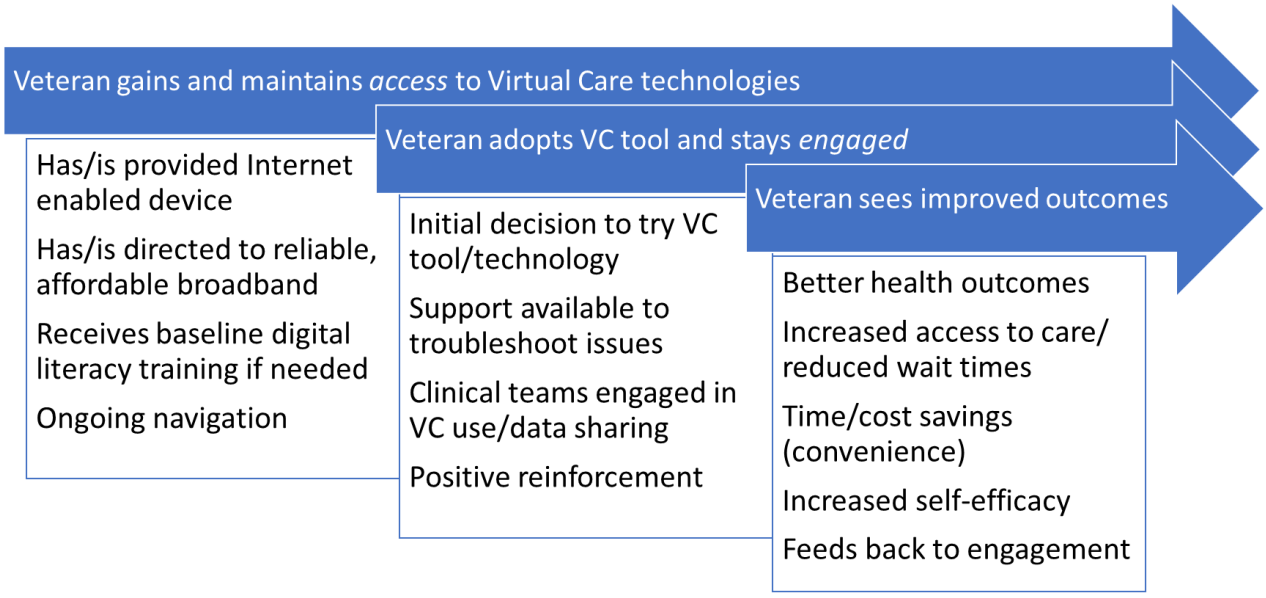
Overview of VA Virtual Care SOTA

The VA Virtual Care SOTA will focus on three areas, *access*, *engagement*, and *outcomes.* Figure 1 presents a conceptual framework for the SOTA, and illustrates the relationship between these three areas.

The overarching goal of the SOTA is to inform policy and clinical operations and generate a research agenda focused on opportunities to:

1. Address virtual care access disparities
2. Enhance Veteran engagement with virtual care
3. Define and improve outcomes influenced by virtual care

Figure 1. Conceptual Framework for VA Virtual Care SOTA



Key Questions for the Access Workgroup

The Virtual Care SOTA *Access* Workgroup will focus on the following key questions:

1. Based on the existing evidence about barriers that impede virtual care access in digitally vulnerable populations, what additional research is needed to understand these factors?
    a) **How should VA prioritize research related to these factors to maximize impact?**

2. Based on the existing evidence about digital inclusion strategies, what additional research is needed to identify the most promising strategies?
    a) **How should VA prioritize research related to these strategies to maximize impact (e.g. research that will inform strategy design, testing, and policy)?**

3. What additional research beyond barriers and strategies is needed to address disparities in VC access?

SOTA Access discussions will consider priority populations that commonly experience virtual access barriers, examples of the most common virtual care access barriers, and examples of promising digital inclusion strategies (Table 1).

Table 1. Examples of Patient Characteristics, Barriers, and Strategies That Influence Veterans' Access to Virtual Care

Patient Characteristics Influencing Virtual Care Access	Virtual Care Access Barriers	Digital Inclusion Strategies
• Older age • Homelessness • Rural location • Substance use • Mental Health Condition • Physical disability (or functional limitations, or physical/cognitive limitations) • Multimorbidity	• Lack of Technology • Lack of Reliable Connectivity • Functional Limitations • Low Digital Literacy • Lack of Privacy • Patient Preferences for In Person Care	• Assessing patients for digital access/skills • Offering patients access to free/low-cost internet • Training patients in digital skills • Digital Navigators • Offering patients virtual care devices (e.g., tablets, smart phones)

To inform discussions at the Virtual Care (VC) SOTA, the Access workgroup leaders conducted a rapid literature review of VC access frameworks, disparities, and interventions. We prioritized studies within the VA healthcare system, but also examined literature from outside the VA that may be relevant to the care of Veterans. The articles and ideas included in this document are not meant to be exhaustive, but aim to provide a foundation for discussion. Below, we summarize some of the key themes and findings of this literature search.

Background/Context

Virtual Care has been available for many decades and is often lauded for its potential to reduce disparities in access to healthcare overall. However, while VC may reduce some gaps in the availability of care, it has the potential to create or deepen others, due to a growing digital divide in the US. The term “Digital Divide” is used to describe the gap between those who have access to adequate broadband internet, devices such as computers and smartphones, and the digital literacy required to use these tools – and those who do not. The swift adoption and uptake of telemedicine during the pandemic has thrust the concept of a digital divide into the spotlight.[1] It must be noted that disparities in VC use are also due in part to patient and/or clinician choice. Because these important contributors will be the focus another workgroup, ours will concentrate on a Veteran’s ability to use (rather than decision to use) VC technologies. See our temporal model of Virtual Care *access, engagement, and outcomes* below.

Section 1: Virtual Care Implementation and Digital Disparities in VA

1. **COVID-19 caused a shift in modalities through which care is provided within the VA**.

    a. In a national assessment of VC expansion in the VA during the COVID-19 pandemic, Ferguson *et al.* showed large shifts in video-based, telephone, and in-person care[2] (Figure 2).

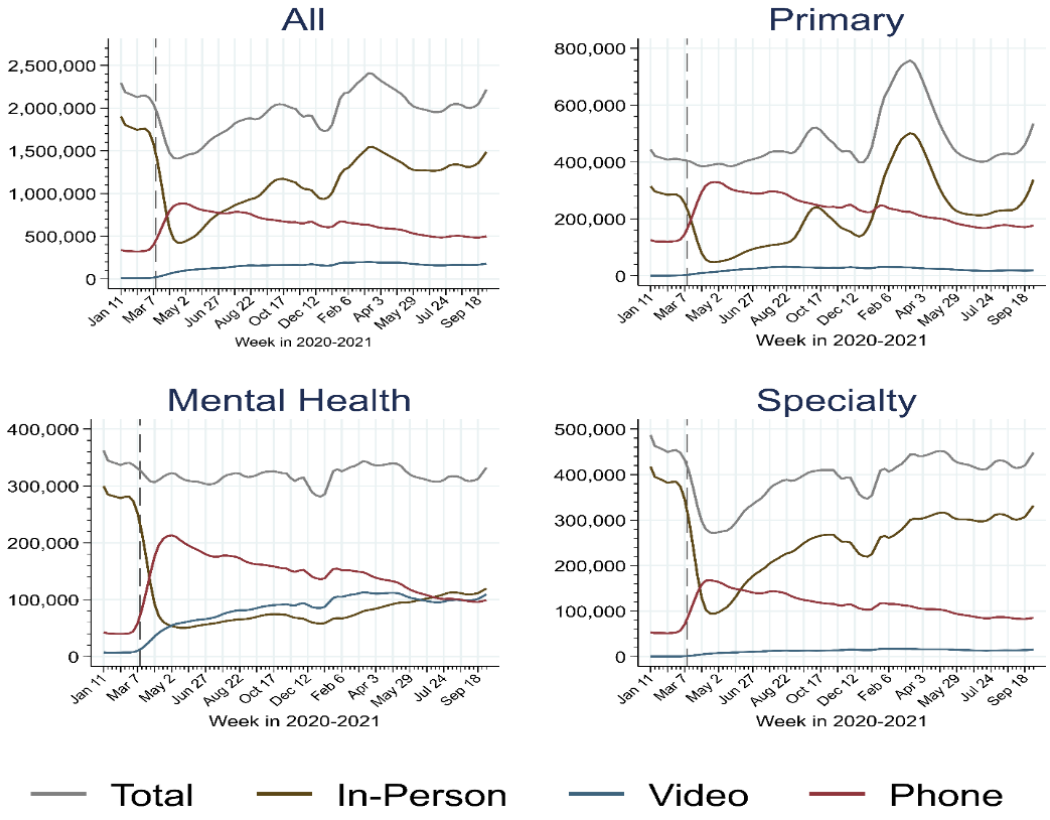


Figure 2: Encounters at the Veterans Health Administration (VA) between January 4, 2020 and October 2, 2021 by care delivery method and care type. The dashed line represents March 11, 2020: World Health Organization declares COVID-19 a pandemic. While all of primary care, mental health, and specialty care initially shifted toward telephone and video visits, mental health had the largest increase in video care and most sustained use of telephone and video.

b. In an article discussing the importance of addressing equity in VC use in the management of chronic disease, Nouri et al describe how digital barriers are found more frequently in rural populations, older adults, racial/ethnic minorities, and those with low socioeconomic status, limited health literacy, or limited English proficiency.[3]

c. Other articles have highlighted these barriers on a national level.[10,11,12]

- Rurality: Many rural areas in the United States still lack high-speed broadband connectivity and individuals living outside of metropolitan and urban areas are less likely to have the capacity to complete video visits from home.

- Older age: Among older adults (>65 years), 55%-60% own a smartphone or have home broadband access. While 73% of people with a smartphone or home broadband access use the Internet, only 60% can send an email, fill out a form, and find a website.

- Poverty: Nearly 1 in 8 Americans lives in poverty. Compared to individuals with higher income, individuals with lower income have lower rates of smartphone ownership (71% vs. 95%), home broadband access (59%), Internet use (82%), and basic digital literacy (53%)[4].

- Race: Data from 2016, from the US Census Bureau, found that 81% of White households had a desktop or laptop computer, compared with 64% of Black and 68% of Hispanic households, with similar discrepancies in broadband subscriptions. Pew Research Center indicates that 79% of White individuals are home broadband users, compared to 66% of Black and 61% of Hispanic individuals. Consequently, 25% of Hispanic and 23% of Black individuals are reliant on smartphones for internet access, compared to only 12% of White individuals.

- Income: It is estimated that 30% of those earning <$30,000/year own a smartphone, and many low-income households share devices, raising both access and privacy issues.

- Digital Literacy: At least 1 in 4 Americans may not have digital literacy skills to properly engage in video-based visits.

2. **The rapid expansion in the use of VC will likely exacerbate the digital divide**. Several papers remarked on the differences in telehealth adoption by populations with vulnerabilities, and suggest that a widening “digital divide” (i.e., disparities in access to computers or the internet) could result in disparities in access to health care.

   a. Older individuals, non-English speakers, and Black patients have been found to be more reliant on telephone than video for care.[5]

   b. Individuals in rural areas and areas with low broadband access and individuals who have not used a patient portal (i.e., system that facilitates access to personal health records) are less likely to use video visits.[6,7]

c. Clinicians sometimes offer telephone rather than video visits to patients based on assumptions about their ability or desire to engage in video visits.[7]

3. **Systems factors impact the uptake and use of VC**. In a paper examining organizational and external factors associated with VC penetration before and early in the pandemic, Jacobs *et al* found:

    a. VAMCs with the highest proportions of patients using VVC during the pandemic had more high-risk patients and fewer long-distance patients.

    b. VAMCs with patient populations that had the lowest levels of broadband access were less likely to be high utilizers of primary care and mental health VVC.

    c. Higher performing primary care medical centers were more likely to be in areas with higher mobile broadband coverage and more likely to use VVC in 2019.[8]

Section 2. Barriers to Virtual Care Implementation and Access in VA

1. **Cross-cutting evidence about barriers to VC access**

    a. A mixed-methods assessment of the implementation of telehealth services in the VA found that technological barriers must be addressed to achieve access for all patient populations; including those with different socioeconomic backgrounds, living situations and locations, and health conditions.[9] These barriers can be broken down into the following:

        i. IT barriers
            1. Several important factors, such as number of steps required to connect to a virtual visit, flexibility in using different types of video-capable platforms, and provision of free or low-cost infrastructure (including devices and internet access) need to be considered for successful adoption of VC among at-risk populations.

        ii. Operational barriers
            1. Scheduling and staffing considerations, such as clear communication strategies between schedulers and providers, as well as provision of support or technical staff to assist patients on how to use VVC (or other telehealth modalities) can help alleviate pressures on the clinical team.[9] One example in responding to this barrier is that the VA has a nationwide directive to incorporate a test call standard operating procedure into VVC workflow to ensure Veterans are prepared for their VVC visit.

2. **Care-specific evidence on barriers to VC access**

    a. Mental Health
        i. In a systematic review on barriers and facilitators to implementing videoconferencing for psychotherapy in the VA, Muir *et al* found that most reported barriers to video-based mental health care are related to:

1. Clinical concerns (e.g., can psychosis be assessed and managed appropriately during a video visit?)
2. Technical concerns (e.g., is it feasible to troubleshoot connections?)
3. Administrative (e.g., how do policies help or hinder providers?)[10]

b. Primary Care
   i. In a description of the rapid mobilization of virtual primary care services in response to COVID-19, Reddy *et al* found that key implementation barriers in the VA include:
      1. Workforce training.
      2. Patient education
      3. The need to expand technology infrastructure.
         a. Many older Veterans chose telephone visits due to limited access to home internet and/or smartphones.

c. Medical Subspecialty Care
   i. While many in Primary Care and Mental Health had already taken VA specific telehealth training, few in Specialty Care had done so prior to March 2020.[11]
   ii. In a survey among VA providers, subspecialty providers reported greater inabilities to conduct a required physical exam or ability to assess physical health status than primary care providers.[12]

Section 3. VA-based Programs to Improve Virtual Care Access

The Office of Connected Care has identified several VA strategies that facilitated VC expansion during the COVID-19 pandemic. Tactical areas that were critical to the VA's success are described by Heyworth *et al.* in a *NEJM Catalyst* article, and include[11]:

1. Training and support for the VA workforce
   a. More than 40,000 front-line clinicians (many new to VC) were directed to complete already established telehealth training, if not already done.
   b. Restrictions on healthcare trainees' use of telehealth were relaxed by national VA policy, and mechanisms for virtual supervision were implemented.
   c. Policy provisions to facilitate telework for VA staff were fast-tracked.
   d. Increased national helpdesk staffing.
   e. Dedicated high levels of staff to onboard patients.

2. Expanding the technology infrastructure
   a. Funds were re-allocated to expand VA's national loaned tablet program and to expand and deliver equipment for remote patient monitoring (e.g., thermometers, pulse oximeters, scales, and smartphones).
   b. Several studies have described the VA's tablet distribution program whose goal was to improve access for veterans with complex medical and social needs.[13,14] To support and increase access to VC, these programs provided tablets to Veterans who lacked appropriate digital devices. This work found the following:
      i. Patterns of use from Tablet Evaluation QUERI: Majority of recipients use tablets within one month of shipment date.

ii. Despite the loaned-tablet program, disparities in tablet use still exist with Black Veterans, Veterans with certain medical conditions (e.g. substance use disorder), and Veterans suffering from housing instability all being less likely to use a VA issued video-enabled tablet.

3. Focusing on high-risk patient populations
    a. In the early stages of the pandemic, frontline clinicians were instructed to identify high risk populations in primary care and mental health and proactively and systematically reach out and check on them.
    b. Using the loaned-tablet program, between March and April 2020, VA loaned tablets to >850 inpatient settings and >7,000 high risk veterans with access needs.
    c. Tablets were also distributed to all State Veterans Homes and CLCs.

4. VA PACT Model
    a. Reddy et al found that the PACT model was vital in ensuring access to primary care during COVID, highlighting the importance of team-based care.[4]

5. Digital Divide Consult[15]
    a. VA providers can refer Veterans to a social worker who determines eligibility for programs to help get internet service or technology needed for VA telehealth, such as:
        i. The VA Loaned tablet program.
        ii. Free data while using VA Telehealth provided by AT&T, SafeLink by TracFone, T-Mobile, and Verizon.
        iii. The Federal Communication Commission (FCC) Lifeline and Affordable Connectivity Programs (described below).

6. Accessing Telehealth through Local Area Stations (ATLAS)[16]
    a. ATLAS provides solutions for accessing care, particularly in rural areas, by offering convenient locations for Veterans to access VA health care in Veterans of Foreign Wars (VFW), The American Legion, Philips, and Walmart stores in their communities.
    b. There are currently 13 ATLAS locations, with more in development; the local VA facility associated with the ATLAS site determines which clinical services each site offers. Clinical services offered by video may include primary care, mental health counseling, clinical pharmacy, nutrition services, social work, and more.
    c. In addition to the benefits of proximity and/or connectivity offered by ATLAS, these sites also provide a private space for Veterans to attend VA appointments.

7. VA Clinical Resource Hubs (VCRH)
    a. VCRHs provide a network of solutions that combines in-person care and telehealth support to underserved medical facilities. This allows rural Veterans to get the care they need, when they need it, regardless of location.
    b. Launched new VA Virtual Health Resource Centers[17] modeled after the original at the St. Cloud, MN VA to support Veterans, healthcare staff, and family members/caregivers on the use of VC tools and programs.
        i. In FY21 delivered over 5,000 consultations/visits.
        ii. In FY21 delivered a total of 383 training and marketing events to a total of 17,567 attendees (Veterans and VA staff) to increase awareness, knowledge, and skills in VC use (VHRC Power BI Data Dashboard).

c. Launched the VHRC Implementation Consult Service (ICS) providing facilities the implementation roadmap, materials, and guidance needed to launch a VHRC.

Section 4. **Non-VA Initiatives, Interventions, and Recommendations**

1. **Several federal initiatives focus on improving access to Virtual Care**.

    a. FCC Lifeline program: subsidizes the cost of smartphones and Internet service for low-income individuals. However, the Lifeline Program's impact is limited by low consumer awareness, and the qualification process varies by state and by the service provider. Additionally, internet service may still be unaffordable even with the monthly subsidy.

    b. Federal Broadband Opportunities Program: supported over 4 million people to get online for the first time with a $4 billion program. Unfortunately, those one-time dollars are spent, leaving a gap in the need for adult digital literacy support.

    c. The FCC has also introduced a wide range of initiatives to maintain and expand broadband access during the pandemic,[18] including paying for devices and access.[19]
        i. The CARES Act appropriated $200 million in funding to be dedicated to telehealth services for its Covid-19 Telehealth Program, which adds financial support to clinics in underserved communities.
        ii. The Affordable Connectivity Program provides home internet service discounts and a one-time discount to purchase a computer or tablet.

    d. Infrastructure Investment and Jobs Act (2022): While not primarily focused on health care, this legislation provides $65 billion for funding for digital-inclusion initiatives, including further investment in broadband infrastructure ($42.5B), promotion of further broadband affordability through subsidies for underserved individuals ($14.2B), and the creation of digital-literacy programs ($2.8B).

2. **There are a number of institutional-based interventions that have the potential to improve VC access for Veterans**:

    a. Remove health system–created barriers.
        i) Offer video visits to every patient.
        ii) Consider offering telephone visits if unable to mitigate barriers to video visits.
        iii) Increase system leadership awareness of barriers to telemedicine.

    b. Systematically assess individual patients' access and digital literacy skills:
        i) Develop protocols to assess patient technical readiness and needs at clinical intake and update at each subsequent visit.
            (1) Asking patients what devices they own and how they access the Internet is not common in a clinical setting, but can shape the type of technology a clinician can recommend.
            (2) Incorporate this information into the EHR.
            (3) Encourage more consistent documentation of VC access abilities.

(4) When digital skill and connectivity gaps are systematically assessed, a health system can document overall population-level metrics, examine disparities, and track changes over time.[19]

ii) This is particularly critical for patients belonging to identified high risk groups (older adults, low SES, limited English proficiency, racial/ethnic minorities, etc.).

iii) Carefully track which individuals appear to be absent from care, missing video visits, or relying on phone visits instead of video and develop outreach programs.

iv) Include health disparities as a key performance indicator on telemedicine dashboards and quality-improvement interventions.

b. Improve pre-visit preparation:

i) Ahead of every telemedicine visit, provide instructions for connecting and recommendations for maintaining privacy, such as use of headphones.

ii) Conduct a test visit to confirm capability, review processes, and ensure a plan for a safe space to conduct the actual visit.

c. Provide digital devices:

i) Develop programs that offer smartphones, tablets, laptops, and headphones to patients to those who do not have regular access to such devices.

(1) However, offering hardware devices is not a panacea because it does not address other barriers, like broadband access or other hurdles we have outlined, and devices can be lost or stolen.

ii) Inform patients about newly free or reduced-cost broadband Internet in their area

iii) Provide classes or other trainings to teach technical literacy, especially for individuals with the most need (e.g., high risk groups identified above).

d. Consider cultural and functional limitations:

i) Ensure an option for language interpretation services (simultaneous video preferred over audio only) as well as options for hearing impairment (American Sign Language interpreters or closed captioning) and assess if individuals need assistance due to vision impairment or cognitive impairments; follow telehealth principles outlined by the Consortium for Citizens with Disabilities.[20]

e. Provide robust training for staff:

i) Train clinical staff, peer support teams, volunteers, and/or healthcare navigation specialists to help patients manage EHR portals and telemedicine tools.

ii) Add telemedicine best practices to medical education and training curricula.

f. Consider unique living situations and alternative access sites:

i) Provide devices and a private space at group living sites, such as shelters.

ii) Design locations where individuals can join telemedicine visits that offer reliable connectivity, and privacy (e.g. accessible stations in a parking lot or library, or available devices and assistance at central community-based organization sites).[21]

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