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ADAPTING VIRTUAL CARE DELIVERY: HEALTH CENTER STRATEGIES FOR ADDRESSING PATIENT AND CLINICAL CHALLENGES

U.S. Department of Health and Human Services
Health Resources & Services Administration
Bureau of Primary Health Care

Through the Optimizing Virtual Care (OVC) program, the Health Resources & Services Administration (HRSA) funded 29 health centers to develop, implement, and evaluate innovative evidence-based virtual care strategies that:

- Expand on the national surge in virtual care utilization at health centers in response to the COVID-19 public health emergency.
- Optimize the use of virtual care to increase access and improve clinical quality for populations who are medically underserved and have historically faced barriers to care.
- Can be adapted and scaled across HRSA's Health Center Program.

This program is the first in the Quality Improvement Fund, the Bureau of Primary Health Care's (BPHC) investment to activate and accelerate innovation. During the first twelve months of the OVC program (March 2022 to February 2023), awardees began implementing new or enhanced virtual care strategies. Awardee activities addressed four key OVC program objectives: 1) increase access to care; 2) improve clinical quality and health outcomes; 3) enhance care coordination; and 4) promote health equity.

This brief is part of a series of OVC materials released by HRSA to share innovative strategies and actionable tips from OVC awardees to support other health centers in planning virtual care approaches in their communities. For more information or to access other briefs and OVC resources, visit the OVC webpage.

Capturing OVC Awardee Insights on Virtual Care Delivery

OVC awardees are currently piloting new self-reported measures to capture information about virtual care implementation successes, challenges, and lessons learned to improve access to care. As part of the grant monitoring process, OVC awardees submitted 12 monthly reports and two biannual reports to describe key activities and progress made toward achieving OVC program objectives.

This brief uses data reported by the OVC awardees to highlight strategies the awardees used to provide ongoing virtual care to health center patients across the nation. During the first year of the OVC project, awardees reported:

- Providing virtual care using the following modalities: real-time audio-only or video visits, asynchronous store and forward approaches, remote patient monitoring, and mobile health technologies.
- Integrating process improvement activities, including redesigning workflows and hiring staff focused on virtual care delivery.
- Adapting physical clinic spaces to improve virtual care delivery.

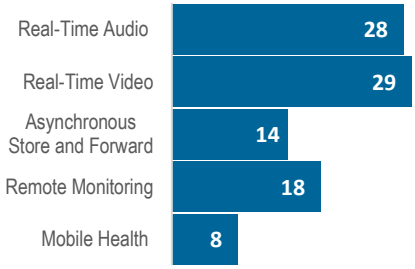
HRSA Health Center Program

Virtual Care Approaches Implemented by OVC Awardees

OVC awardees provided care to patients using a variety of synchronous and asynchronous virtual care services during the first 12 months of the OVC program. As illustrated in Figure 1, examples of the types of virtual care provided include:

- **Real-Time Audio:** Telephone calls with a provider for care
- **Real-Time Video**: Audio-video virtual care visits with provider
- **Asynchronous Store and Forward:** Secure emails with patient x-rays or other images sent to a provider for evaluation
- **Remote Monitoring:** Continuous glucose monitor use, blood pressure monitor use, oximetry monitor use
- **Mobile Health:** Tracking emotional health with a tablet application

Figure 1: Virtual Care Types by Number of OVC Awardees



Addressing Key Patient Challenges to Virtual Care Use

To learn more about patient challenges to engaging in virtual care programs, OVC awardees administered surveys, conducted patient interviews, established patient advisory boards, and spoke with patient-facing staff members. Table 1 presents challenges patients experienced using virtual care services and strategies that OVC awardees implemented to address these challenges and to promote person-centered care.

To learn more about working with patients and families as advisors, visit ahrq.gov.

Table 1: OVC Awardee Strategies to Address Patient Challenges Using Virtual Care

Patient Challenges	Awardee Strategies to Address Patient Challenges
Limited Access to Devices and Internet Connectivity Examples: Patients not owning smart phones or other necessary devices, poor internet connectivity	▪ Provide patients with compatible devices and infrastructure required to access virtual care services (e.g., laptops, cell phones, tablets, remote monitors, internet hot spots, headphones). ▪ Deliver devices to patients or offer convenient pick-up locations and times to support access.
Limited Digital Literacy and Discomfort Using Technology Examples: Misunderstanding instructions to access virtual visits, issues completing virtual visits, difficulties correctly using remote monitoring devices, or challenges submitting data to providers ***"Many providers express their lack of [technology] knowledge and how that is a barrier to helping patients connect." ~ OVC awardee***	▪ Hire and train staff (e.g., community health workers [CHWs], digital navigators, and information technology [IT] specialists) to provide technical support. ▪ Facilitate practice virtual care sessions with IT support teams to prepare patients for upcoming virtual care visits. ▪ Routinely offer digital literacy training for patients and providers. ▪ Partner with community-based organizations (e.g., libraries, nonprofits) to connect patients with technology education resources and training. ▪ Identify patients who do not complete scheduled virtual visits due to technology challenges to offer technical support or alternative care modalities. ▪ Create workarounds to accommodate patients' technical difficulties (e.g., CHWs collecting data by phone when patients cannot upload it remotely from devices).
Language Barriers Examples: Difficulty accessing virtual care information, instructions, technical support, or provider services in primary language	▪ Match patients with providers who speak their primary language. ▪ Offer portal training to patients in multiple languages. ▪ Integrate translation services into virtual visit workflows. ▪ When selecting virtual care technology, ensure availability of messages and materials in languages representative of the patient population.
Patient Preferences or Clinical Need for In-Person Visits Examples: Preference for in-person visits, in-person visits required for specific types of clinical care	▪ Implement hybrid care programs that balance necessary in-person clinical visits with virtual follow-up appointments. ▪ Expand virtual diagnostic technologies used by health center to broaden the types of services that are appropriate for patients to access virtually. ▪ Extend hours for real-time virtual care visits to include evening and weekend appointments when in-person visits are not available. ▪ Facilitate personable introductions to virtual programs in person, using warm hand-offs with staff members (e.g., CHWs) available to answer questions. ▪ Explore machine learning technology to make predictions on patient needs, preferences, and challenges.

Addressing Health Center Challenges to Providing Virtual Care

OVC awardees identified organizational challenges with delivering virtual care through facilitating collaborative team discussions and administering staff surveys. The table below presents key health center challenges and strategies implemented to sustain virtual care delivery.

Table 2: OVC Awardee Strategies to Address Health Center Challenges Associated with Delivering Virtual Care

Health Center Challenges	Strategies to Address Health Center Challenges
Limited Staff Capacity to Support Virtual Care Activities Examples: Insufficient staff resources to manage virtual care program enrollment, analyze remote monitoring data, and share critical patient updates with providers	▪ Involve all patient-facing staff in referring patients for virtual care services, regardless of their role, to increase enrollment opportunities. ▪ Adapt virtual care technology features to automate routine staff tasks such as sending appointment reminders and completing patient check-in. ▪ Launch artificial intelligence tools, such as a chatbot, as an immediate resource for patients for routine medical advice and to triage care.
Technology and Vendor Quality and Access Issues Examples: Delays in virtual care technology delivery due to global device shortages, camera device not producing high quality imaging	▪ Collaborate with vendors to ensure that technology features align with health center needs, including building customized features (e.g., automated messaging) when needed before contracting. ▪ Test multiple devices across diverse care teams and consider their compatibility with current patient care workflows. ▪ Establish processes to test virtual care technology and replace defective devices before distributing them to minimize patient and staff frustrations.
EHR Integration Challenges Examples: Manual processes for uploading patient data into EHR, critical patient data not available to entire care team	▪ Deploy electronic health record (EHR) systems compatible with a wider range of technologies. ▪ Prioritize interoperability with EHR when purchasing new virtual care devices or platforms. ▪ Factor the cost of integrating new device or platform data into project budgeting.
Logistics and Workflow Challenges Examples: Insufficient clinic space to implement new workflows, poor or unstable internet connection	▪ Provide multiple in-person and remote training sessions to staff when launching new virtual care programs. ▪ Facilitate collaborative communication (e.g., routine meetings, digital newsletters, listening sessions) with health center staff who are impacted by changes in clinic workflows to identify pain points and resources needed for successful virtual care delivery (e.g., technical support, private spaces to complete virtual visits).
High Cost and Unclear Financial Sustainability Plan Examples: Affording one-time and recurring technology costs, changes in federal and state-level virtual care reimbursement policies ***"[Uncertainty] about how the end of the public health emergency will affect the reimbursement of telehealth services has made it challenging to create work flows and best practices that anticipate upcoming changes to reimbursement rates." ~ OVC awardee***	▪ Ask vendors to offer compassionate care pricing or reimbursement for devices for uninsured patients or patients insured by Medicaid. ▪ Research multiple vendors and devices, including comparing technology costs over time to inform technology selection. ▪ Reach out to similar health centers to exchange best practices on financial sustainability for virtual care strategies. ▪ Adapt virtual care purchases to balance cost constraints (e.g., purchasing fewer supplemental services from vendors for selected remote monitoring technology to provide devices for more patients). ▪ Provide resources (e.g., information, technical support, community kiosks, free tablet devices) to support patients in completing video-based visits over audio-only visits to increase reimbursements received for virtual care.
Information Security, Privacy, Compliance Examples: Limited private spaces for facilitating virtual visits, complications with secure transmission of patient data to health centers site	▪ Customize informed consent language for virtual care registration with care team, leadership, and compliance officers. ▪ Review documentation for adherence to compliance standards needed for virtual care visits prior to onboarding patients. ▪ Create clear "Member Use Agreement" guidelines to outline the equipment usage requirements and expectations. ▪ Onboard a digital signature platform to capture patient signatures and facilitate smoother virtual registration processes that comply with state and federal requirements.