

Promising Practices for Telemedicine Implementation

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Published by the RAND Corporation, Santa Monica, Calif.

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Preface

From 2017 to 2020, the California Health Care Foundation funded the Sustainable Models of Telehealth in the Safety Net initiative to expand the use of telemedicine in eight participating community health centers in California. To evaluate the experiences of participating health centers in growing their telemedicine programs, we conducted a mixed methods formative and summative evaluation. Quantitative data sources included health center telemedicine volume and progress report data, while qualitative data sources included interviews with telemedicine coordinators and health center clinicians conducted by telephone and at site visits, along with focus groups with chief financial officers. The overall results of this evaluation are described elsewhere (see Lori Uscher-Pines, Jessica Sousa, Alina I. Palimaru, Mark Zocchi, Kandice A. Kapinos, and Allison J. Ober, *Experiences of Community Health Centers in Expanding Telemedicine*, Santa Monica, Calif.: RAND Corporation, RR-A100-1, 2020). In this report, we aim to provide practical guidance on promising practices to support telemedicine implementation.

This project was funded by the California Health Care Foundation and carried out within the Access and Delivery Program in RAND Health Care.

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Practices for Telemedicine Implementation

As part of the Sustainable Models of Telehealth in the Safety Net (SMTSN) initiative process evaluation, staff from health centers in California described numerous promising strategies that facilitated telemedicine implementation (for the full evaluation, see Uscher-Pines et al., 2020). In the context of the initiative, a *promising practice* was defined as a practice that shows potential to support the growth and sustainability of telemedicine programs in safety-net settings.

Promising practices are associated with successful outcomes in certain circumstances. However, there is not yet sufficient evidence to prove that they will be effective across settings.

RAND Corporation evaluators catalogued promising practices that participating health centers implemented during the initiative, from 2017 to 2020. To accomplish this, we reviewed qualitative data sources used in the broader evaluation (see Uscher-Pines et al., 2020), including health center progress reports and staff interviews, and developed a preliminary list of promising practices. In this first step, we sought to understand (1) the types of practices that were perceived to be promising, (2) the goals that each practice was supposed to accomplish, and (3) the context in which each practice seemed to be most suitable. Second, we presented a preliminary list of practices to telemedicine staff from eight participating health centers at an in-person meeting in November 2019. At this meeting, participants were asked to (1) add any candidate practices that were not represented in the initial list, (2) remove any practices that were not regarded as promising, and (3) indicate whether their health center had any experience with each practice.

This brief report presents all promising practices that were identified by the RAND team and subsequently vetted by health center staff. Health centers and other office-based settings that provide telemedicine services can consider applying these practices to improve the efficiency and quality of their telemedicine programs. We describe promising practices in the following categories:

- practices to reduce or manage no-shows
- practices to facilitate communication between primary care providers and specialists
- practices for negotiating favorable contracts with telemedicine providers
- practices to reduce obligations for on-site staff
- promising practices to improve patient buy-in for telemedicine
- practices to improve provider buy-in for telemedicine
- practices to improve sustainability
- miscellaneous practices.

Practices to Reduce or Manage No-Shows

Multiple health centers reported high no-show rates (i.e., cases in which patients did not attend their scheduled telemedicine appointments). Reducing no-show rates was a priority for

many telemedicine coordinators because no-shows are costly for health centers. Several participating health centers pursued the following strategies to help patients attend scheduled visits:

1. **offering and coordinating transportation to appointments.** All participating health centers described efforts to offer transportation support between patients' homes and the health center, including door-to-door shuttles and vouchers for ride-share services. Door-to-door shuttles were perceived to be more flexible than ride-share options, which had to be scheduled several days in advance. *This practice might be suitable for health centers located in areas where public transit is limited or absent, and for patients with limited physical mobility and/or personal transportation options.*
2. **bundling multiple activities into one telemedicine visit.** All health centers attempted to schedule other patient encounters on the day of the telemedicine visit to increase efficiency and save patients multiple trips. These included same-day on-site blood draws, other lab tests, and combining adult and pediatric services for parents and their children. *This practice might be suitable for health centers in cases in which telemedicine workflows are well integrated into the regular workflow and staffing is sufficient to support warm hand-offs between the multiple appointments.*
3. **sending multiple appointment reminders.** All health centers sent automated or live phone calls reminding patients about upcoming appointments and asking them to confirm their attendance. For example, one health center called patients two days in advance of the appointment, making three to six attempts to reach patients. In practice, live calls, or a combination of live calls and automated reminders, were perceived to be more effective than automated reminders alone. When patients missed appointments after confirming by phone, the health center followed up to establish the cause of the no-show and to reschedule. *This practice might be suitable for centers that have high no-show rates and enough telemedicine support staff to sustain systematic reminder and follow-up calls.*
4. **double-booking appointments.** Five health centers reported giving two patients the same time slot for a telemedicine appointment so that even if one did not attend, the telemedicine provider would be able to complete a visit. If both patients joined, one would be asked to wait and would be fit into the schedule later on. Some telemedicine providers disliked this approach even when they were reassured that should all the patients in a block of time turn up for their appointments, some would be rescheduled for another time. *This practice might be suitable for health centers with high no-show rates and telemedicine vendor contracts through which providers are paid by the hour as opposed to by patient encounter.*
5. **encouraging telemedicine coordinators to develop a relationship with patients.** Five health centers encouraged their telemedicine coordinators to develop rapport with patients (i.e., establish trust and listen actively to patient concerns). Coordinators were encouraged to get to know patients and their personal circumstances, educate them about what telemedicine is and why it might be a good option for them, and reassure them when they had doubts. One health center sent letters to patients with information about the license and credentials of the specialist providers they were going to see during their appointment. Another health center conducted telephone calls welcoming new patients and explaining telemedicine to them. That health center subsequently replaced that

practice with sending a welcoming letter by mail, including questions and answers about telemedicine and information on the no-show policy. *This practice might be suitable for health centers with high no-show rates and whose patient populations express skepticism about telemedicine.*

Practices to Facilitate Communication Between Primary Care Providers and Specialists

Several health centers described challenges in primary care provider (PCP) and telemedicine provider communication, which resulted in poor coordination of telemedicine services.

Communication problems often required the involvement of extra staff, including telemedicine coordinators and medical assistants (MAs). Health centers reported that the following practices improved communication:

1. **designating a telemedicine coordinator or MA to manage workflow following the telemedicine appointment.** Six health centers assigned telemedicine coordinators or MAs to monitor the return of laboratory tests, notify PCPs about results, and notify patients about next steps. Where needed, MAs could facilitate communication between a PCP and specialists (e.g., submitting clarifying questions about a diagnosis on the PCP's behalf). *This practice might be suitable in cases where PCPs feel overburdened by telemedicine-related tasks and where MA staffing is sufficient to support telemedicine workflows.*
2. **encouraging direct lines of communication between PCPs and telemedicine providers.** Four health centers encouraged direct communication between PCPs and telemedicine providers by (1) giving telemedicine providers access to the health center's electronic medical record (EMR) system, and thus to the internal communications system; and (2) ensuring that contracts with telemedicine vendors included language requiring opportunities for clarification about diagnoses, treatment plans, and follow-up questions. The need for follow-up and to pose clarification questions was especially acute when telemedicine contracts were primarily consultative, meaning that the telemedicine provider offered advice, but the responsibility to order tests and prescribe medication remained with the PCP. *This practice might be suitable for health centers that seek to reduce the need for MAs to act as messengers between PCPs and telemedicine providers.*
3. **holding pre-appointment huddles.** Four health centers highlighted that their telemedicine workflow included team-based huddles prior to telemedicine appointments. These huddles typically involved MAs, nurses, therapists, telemedicine coordinators, PCPs, and/or telemedicine providers. The objective of the huddle was to ensure that the team was updated on the visit, learn about any special circumstances for each patient (e.g., the likelihood that that patient would be under the influence of substances at the time of the visit), and decide collectively on next steps. This strategy also is useful in informing the telemedicine specialists about physical indicators that might not be easily picked up through the video display, such as the presence of bruises, signs of self-harm, and poor hygiene. *This practice might be suitable for health centers that want to improve care coordination and team-based communication.*

4. **including PCPs in telemedicine visits.** Three health centers structured their telemedicine workflow to allow PCPs to sit in on the visit. In some cases, PCPs joined for the full visit. In other cases, they joined at the beginning of the session, to introduce the patient and their circumstances, or at the end, to discuss next steps and ensure that the patient understood the treatment plan. This practice was perceived to help enhance PCPs' knowledge as they rotated through several specialty areas. In some instances, this strategy also helped ensure that the telemedicine visit was billable. *This practice might be suitable for health centers that want to improve care coordination and team-based communication and in cases where PCPs have extra capacity.*

Practices for Negotiating Favorable Contracts with Telemedicine Providers

Health centers described several difficulties in negotiating contracts with telemedicine providers. In some cases, health center interviewees felt that they did not know what to ask for in contracts and worried that peer organizations were getting better terms. In other cases, they wished for changes in how contracts were structured but were not clear on how to push for those changes. They reported that the following practices helped mitigate this issue:

1. **choosing telemedicine providers that have large capacity or staff.** Six health centers described deliberately contracting with telemedicine vendors with access to a large pool of providers. Working with a large organization helped ensure that, if a particular specialist suddenly stopped practicing, the vendor would be in a position to replace them. *This practice might be suitable for any health center interested in ensuring continuity of telemedicine services.*
2. **requiring that telemedicine providers be paid by the visit rather than by the hour.** Although most health centers paid telemedicine providers for blocks of time regardless of the number of visits that occurred, three health centers negotiated one or more contracts in which the telemedicine provider was paid for completed visits. This model was considered to be more sustainable for health centers because they were not penalized for no-shows and telemedicine providers had greater incentive to be productive (i.e., see multiple patients in an hour). *This practice might be suitable for health centers that experience high no-show rates.*
3. **addressing “abandonment” in contracts.** Two health centers described contractual clauses that dealt with abandonment (i.e., sudden cessation of services). Abandonment occurred when providers' personal circumstances suddenly changed or when there were misunderstandings about the expectations of each party. To protect against the consequences of sudden service interruptions, contracts stipulated that the vendor provide 60- to 90-day notice to allow time to cancel patient appointments and make alternate plans for care. *This practice might be suitable for any health center interested in ensuring continuity of telemedicine services.*
4. **networking with other health care organizations that have contracts with the same telemedicine providers.** Two health centers described how they benefited from sharing information and discussing the experiences of coordinators at other health centers with shared vendors. Attending workshops that facilitated this type of networking was perceived as a way to share best practices and learn from other health centers' challenges

and approaches. *This practice might be suitable for health centers considering working with new telemedicine providers or for those that do not have institutional knowledge around telemedicine.*

Practices to Reduce Obligations for On-Site Staff

Busy health centers often looked for ways to reduce obligations for on-site staff. The following strategies allowed on-site staff to focus on in-person patients and be more productive:

1. **ensuring that telemedicine providers can manipulate the camera and other peripheral equipment remotely.** Eight health centers acquired telemedicine equipment that allows providers to manipulate the camera remotely. More specifically, they could zoom in and out of the examination room to capture different views of patients' bodies. This was perceived as advantageous because it provided additional information for the telemedicine provider and reduced the level of technical assistance required of on-site staff during the session. In addition, one health center granted telemedicine providers access to on-site printers so they could print patient instructions remotely, which the MAs then handed over to the patients. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers that are understaffed.*
2. **ensuring that distant specialists have read or write access to EMR.** Six health centers provided their telemedicine providers access to their EMR system. Direct access to read patients' medical records and write notes and instructions increases efficiency because it reduces requests for information from health center staff. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers that are understaffed.*
3. **ensuring that telemedicine providers can prescribe.** Four health centers required that their telemedicine providers prescribe medication directly to patients and serve as the provider of record rather than as a consulting provider that dispenses advice. This practice helped improve PCP buy-in for telemedicine, given that many PCPs were not comfortable prescribing certain medications. *This practice might be suitable for health centers that experience challenges with provider buy-in and a lack of training or comfort with prescribing certain medications.*

Promising Practices to Improve Patient Buy-In for Telemedicine

Although health centers generally reported high levels of patient support for telemedicine across health centers, there were some examples of patients resisting telemedicine. For example, some were distrustful of technology, while others preferred to see health care providers face-to-face. Health centers employed the following strategies to get patients comfortable with telemedicine and address any concerns:

1. **encouraging PCPs to introduce the idea of telemedicine and emphasize its benefits prior to a formal offer to participate in telemedicine from a referral coordinator.** Five health centers established protocols that ensure that patients first hear about

telemedicine from their PCPs. This strategy capitalizes on the trust between patients and health center providers and seeks to reassure patients that telemedicine visits are similar in quality to an in-person visit. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers with large numbers of patients who are skeptical about telemedicine or do not have any prior experience with it.*

2. **including signage about telemedicine in waiting rooms.** Three health centers advertised their telemedicine services in waiting room areas. Typically, signage was displayed in print, but one health center planned to utilize TV screens in the waiting room area. Information in the waiting room area sometimes was supplemented with flyers in patient welcome packets. *This practice might be suitable for any health center interested in pursuing telemedicine.*
3. **having patients participate in a telemedicine demonstration.** One health center used this strategy, which helped familiarize patients with the technical set-up and get them comfortable with the modality. In addition, demonstrations can be used to reinforce points made by PCPs when they first introduce the concept. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers with large numbers of patients who are skeptical about telemedicine or do not have any prior experience with it.*

Practices to Improve Provider Buy-In for Telemedicine

Health center providers generally held positive views about telemedicine, but there were some examples of hesitation to refer to telemedicine, a preference to refer patients out for specialty care rather than continue to manage them in-house in consultation with telemedicine providers, reluctance to practice differently, and concerns about the quality of telemedicine providers or the effectiveness of telemedicine workflow. Health centers employed the following strategies to improve provider-buy in and increase utilization:

1. **appointing a clinic champion.** Six health centers had telemedicine champions who were either formally appointed or who informally assumed the position. Champions played various roles within health centers, including telemedicine coordinators, primary and specialty providers, and even leadership. Champions are actively involved in educating colleagues about telemedicine and advocating for it among health center leadership. Champions also can share data related to telemedicine visits and outcomes with providers and staff, celebrating successes and pointing out areas for improvement. *This practice might be suitable for any health center interested in pursuing telemedicine.*
2. **including the telemedicine coordinator in provider meetings.** Six health centers included telemedicine coordinators in key provider meetings, including provider retreats. The objective of this practice is for the coordinator to share regular updates on telemedicine services and proactively address provider concerns. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers that face significant provider resistance to telemedicine.*

3. **providing training on telemedicine to all new health center staff.** Three health centers provided training to all PCPs, MAs, referral coordinators, and front desk staff during the onboarding process. The training covered a broad overview of telemedicine services and staff members' specific responsibilities within the workflow. This type of training helped set expectations early on that all staff should support telemedicine. *This practice might be suitable for any health center interested in pursuing telemedicine.*
4. **encouraging the telemedicine coordinator to build relationships and communication pathways throughout the network of clinic locations.** Telemedicine coordinators should establish open lines of communication with administrative and support staff across departments and clinic locations, particularly for specialties that are provided both on-site and via telemedicine. Such rapport-building can ensure that workflows account for variations in staffing, departmental protocols, and/or clinic capacity. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers that offer a combination of in-person and telemedicine services within a specialty area.*

Practices to Improve Sustainability

Most health centers reported that their telemedicine programs operated at a loss that was offset through grants or operating revenue. To increase the likelihood that telemedicine programs would be expanded and sustained, they experimented with the following strategies to reduce costs, increase efficiency, and capture additional reimbursement:

1. **identifying and networking with external experts who have up-to-date knowledge of telemedicine policies.** Five health centers were actively cultivating relationships with outside experts with knowledge of telemedicine regulatory and reimbursement policies. These experts, who can answer questions and help troubleshoot problems, can be especially helpful because telemedicine policies have changed significantly in recent years. *This practice might be suitable for any health center interested in pursuing telemedicine, especially in cases in which health centers do not yet have institutional knowledge around telemedicine.*
2. **having health center clinicians provide telemedicine visits.** Two health centers used their own providers to provide telemedicine services to underserved locations in their network of clinics. In this model, the health center serves as both the originating and distant site. *This practice might be suitable for large health centers with multiple locations that have specialists on staff.*
3. **offering telemedicine only when it will result in a billable visit.** One health center took this approach and decided not to offer telemedicine to Medicare patients in urban clinics. Because Medicare would not reimburse for telemedicine services in urban communities at the time, this health center prioritized Medicare beneficiaries for in-person services. *This practice might be suitable for health centers that cannot bill certain payers for certain telemedicine delivery models.*
4. **serving patients in their homes, if allowed.** One health center ran a pilot program providing telemedicine at home to their gender-fluid patients. In addition to increasing

access to care for vulnerable populations and for those who have other access challenges, this approach is also advantageous in that it demands less clinic space (i.e., because the patient does not come to the health center, fewer offices or exam rooms are required to complete the visit). *This practice might be suitable for any health center in a state whose Medicaid program reimburses for telehealth in the home.*

Miscellaneous Practices

Health centers pursued a variety of miscellaneous strategies related to staffing, workflow, use of space, information-sharing, and planning to improve their telemedicine programs, including the following:

1. **sharing resources and information with other telemedicine programs.** Eight health centers regularly shared information with other initiative participants on best practices for billing, contracting, scheduling, managing communication, and ways to streamline the telemedicine workflow. Sharing was driven by the structure of the SMTSN initiative and occurred through periodic in-person workshops. However, where such programs do not exist, health centers could actively seek out other telemedicine programs and organize information-sharing mechanisms. *This practice might be suitable for any health center interested in pursuing telemedicine, especially where health centers do not yet have institutional knowledge around telemedicine.*
2. **having dedicated telemedicine staff or a telemedicine department with dedicated space across clinic locations.** Six health centers ensured that their telemedicine staff had dedicated workspaces, preferably close to the various providers who supported telemedicine services. This physical space was perceived as a way to legitimize the telemedicine program and facilitate closer collaboration between providers and telemedicine staff. *This practice might be suitable for any health center interested in pursuing telemedicine.*
3. **offering translation support for telemedicine visits.** Six health centers offered translation support for telemedicine services. In fact, one health center could accommodate more than 100 languages. Translation support occurred in person through multilingual MAs who were available to assist ad hoc, or remotely, through contracted services provided through separate software and/or equipment. This strategy was perceived as beneficial for increasing patient access to telemedicine services. *This practice might be suitable for health centers that serve many non-English speakers.*
4. **certifying at least one staff member to train other staff.** Six health centers certified members of their staff, typically telemedicine coordinators, so that they could train other staff as needed (e.g., on the use of proprietary software for retinal screenings). This strategy was perceived as advantageous because it saved training costs and prepared more staff members to support the telemedicine program. *This practice might be suitable for any health center interested in pursuing telemedicine.*
5. **providing dedicated, separate space for each telemedicine service.** Five health centers ensured the physical separation of their telemedicine equipment when multiple telemedicine services were offered. For example, they kept retinal screening equipment and telepsychiatry equipment in separate exam rooms so that services could be provided

simultaneously. Where multiple types of equipment were stored in the same exam room, efficiency and volume diminished. *This practice might be suitable for health centers that provide multiple telemedicine services requiring different equipment.*

6. **centralizing telemedicine referrals.** Four health centers had referral coordinators make the decision about whether to offer telemedicine (versus in-person visits) to patients who needed specialty care. Health centers believed that this strategy helped increase telemedicine volume by shifting decisionmaking about the appropriateness for telemedicine from PCPs to these dedicated staff members, particularly at health centers where PCPs were less familiar with or where there was less buy-in for telemedicine. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers struggling with PCP buy-in for telemedicine.*
7. **forecasting in-person services in the community and across the health center's network of clinics prior to adding or expanding telemedicine services.** Four health centers relied on such demand forecasting to ensure that demand for telemedicine was accurate and would not be affected by other services in the future. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers that offer a combination of in-person and telemedicine services within a specialty area.*
8. **using team-based decisionmaking around patient suitability for telemedicine services.** Four health centers included a team-based decisionmaking step to determine a patient's suitability for telemedicine visits. This was especially common for behavioral health workflows, where PCPs, case managers, social workers, and/or therapists worked together to determine which patients could benefit and which were too high-risk or unstable for telemedicine and required ongoing in-person services. *This practice might be suitable for any health center interested in pursuing telemedicine and, in particular, for health centers that maintain a high volume of behavioral health services.*
9. **developing a strategic plan for telemedicine that clarifies how it aligns with other priorities.** Three health centers developed strategic plans for telemedicine, often as part of broader strategic planning efforts. As part of this process, they typically (1) assessed and defined the scope of the program (e.g., needs, environment, and telemedicine model best suited to these factors), (2) planned the workflow to include evaluation and dissemination of program metrics, and (3) implemented and monitored progress to identify areas for improvement. Given the variation in telemedicine models and issues encountered by health centers, it is important to have a plan in place that can bring value within existing constraints and opportunities. *This practice might be suitable for any health center interested in pursuing telemedicine.*

This report presents dozens of promising practices. Not all of the practices presented here will be appropriate for all outpatient settings offering telemedicine. As such, organizations, along with providers, can select a few to experiment with and customize for their own practice settings. In the future, it will be important to evaluate the impact of these practices in diverse practice settings.

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