

## The optimal use of telehealth to deliver safe patient care

### Issue:

The use of telehealth during the COVID-19 pandemic has skyrocketed, enabling the timely delivery and continuity of safe patient care while preventing exposure to the coronavirus. Continuity of care is especially important for patients with chronic disease, the elderly, and behavioral health care patients who require routine check-ins with their providers.<sup>1</sup>

Additional benefits of telehealth — also called virtual health services — include:

- Promoting social distancing.<sup>2</sup>
- Aiding in monitoring the progression of home-quarantined COVID-19 patients.<sup>1,3</sup>
- Enabling providers who are quarantined but asymptomatic to provide care remotely from their homes, thus mitigating the loss of highly needed resources.<sup>2</sup>
- Reducing the use of personal protective equipment (PPE).
- Helping patients with transportation barriers connect with their care providers.<sup>1,4</sup>

Inpatient settings can use telehealth at the patient's bedside to conduct remote monitoring as well as remote consultation, either among doctors within the organization or from different regions, to diagnose and treat patients.<sup>5,6</sup>

The widespread use of telehealth was enabled by the Centers for Medicare & Medicaid Services (CMS) in April 2020 when it issued 1135 COVID-19 emergency declaration blanket waivers for health care providers. The waivers, which have a retroactive date of March 1, 2020, are effective through the end of the emergency declaration.

Like other health systems, Kaiser Permanente saw the use of telehealth versus in-person visits flip compared to pre-pandemic days. The organization averaged 85% in-person office visits and 15% telehealth appointments prior to the COVID-19 outbreak, versus an average of 20% office visits and 80% telehealth appointments as of May.<sup>7</sup> Kaiser is ahead of the curve on telehealth implementation and use compared to other providers and systems; it has offered telehealth services to its members in various forms since the late 1990s,<sup>8</sup> established criteria for virtual visits by phone and video, and identified telehealth-appropriate medical conditions.<sup>7</sup>

### Telehealth barriers and challenges

While telehealth has many benefits, there also are usage barriers and challenges in implementation. Some of the challenges include patient populations who are not technologically capable; limited access to technological devices or connectivity issues;<sup>1</sup> and problems monitoring the quality and safety of telehealth. An additional limitation is that not all conditions can be appropriately or safely managed via telehealth.

Additional barriers include inconsistent reimbursement models;<sup>4</sup> legal and regulatory issues; and questions about security, privacy, and confidentiality,<sup>1</sup> including Health Insurance Portability and Accountability Act (HIPAA) concerns.<sup>9</sup>

### Safety actions to consider:

There are some strategies that providers and health care organizations can take to optimize the use of telehealth to deliver safe care and effective care to patients during the public health emergency.

### Set up your telehealth system for success:

- Establish key metrics for success. Hard metrics can include number of patients seen via telehealth, reductions in no-shows, and clinical outcomes. It's also important to set qualitative metrics, such as how telehealth has impacted patient and staff satisfaction, and compliance with treatment as a result of access, convenience, and continuity of care. The data can be used to look for opportunities to restructure the program for improvement.<sup>4</sup>
- Ensure that your vendor can give you easy access to data needed to support your key success metrics.



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- Ask about ways your vendor can provide support pre- and post-implementation, for example, training, tech support, workflow design collaboration, data analysis, cybersecurity, and project management.<sup>4</sup>
- Ensure that your organization has a secure platform that supports HIPAA concerns (i.e., your organization has a Business Associate Agreement with the platform).<sup>9</sup>

**Consider how your clinical services can most effectively be used via telehealth:**

- Develop protocols for virtual care. Reduce variation between specialties and service lines by training providers to provide a standardized high-quality care experience for patients.<sup>10</sup>
- Determine standards for which symptoms and conditions can be managed virtually. Use these standards to triage patients who request a virtual visit.<sup>10</sup>
- [Be aware of regulations around scope of practice](#); limitations regarding different health care disciplines can vary by state.<sup>10</sup>
- Each physician should determine the need for vital signs and the safest and most appropriate approach to accurately obtain them. Some home monitoring programs incorporate measurement and recording of various vital signs. Where vital signs are important for evaluation and management, an in-person examination may be preferred.<sup>11</sup>
- When relying on remote consultations for inpatient care, mandate that another clinician should be at the patient's bedside to assist during the session.<sup>10</sup>

**Follow-through on the details to make telehealth work efficiently with your workflow:**

- Train staff on the telehealth workflow, define roles and responsibilities for both patients and staff, and explain new processes or procedures.<sup>4</sup> One academic medical center created a series of live educational support and online educational modules.<sup>12</sup>
- Integrate staff feedback into the scheduling process.<sup>4</sup>
- Identify a staff superuser who can provide support and training.<sup>4</sup>

**Use data and other feedback on your telehealth experiences to make improvements:**

- Give clinicians real-time access to patient data.<sup>10</sup>
- Enable the collection of remote patient monitoring data into the electronic health record, particularly temperature and pulse oximetry data, blood pressure and glucose.<sup>2</sup>
- Build on your telehealth success to improve management of other patient populations, conditions and specialties.<sup>4</sup>

Many medical professional associations provide specific telehealth/telemedicine guidance on their medical specialty for their members. Some of these are listed in the Resources section below. Also, the American Telemedicine Association (ATA) has a [Telehealth Resource Center](#) that provides a comprehensive collection of guidelines.

**Resources:**

1. Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report. [Trends in the Use of Telehealth During the Emergence of the COVID-19 Pandemic – United States, January–March 2020](#). Oct. 30, 2020.
2. DM Mann, J Chen, R Chunara, et al. “COVID-19 transforms health care through telemedicine: Evidence from the field.” *Journal of the American Medical Informatics Association*, 2020; 27(7).
3. H Xu, S, Huang, S Liu, et al. “Monitoring and management of home-quarantined patients with COVID-19 using a WeChat-based telemedicine system: Retrospective cohort study.” *Journal of Medical Internet Research*, 2020;22(7):e19514. doi: 10.2196/19514
4. American Medical Association. Telehealth Implementation Playbook. Digital Health Implementation Playbook Series. 2020. <https://www.ama-assn.org/system/files/2020-04/ama-telehealth-playbook.pdf> (accessed July 22, 2020).
5. J Ye. “The role of health technology and informatics in a global public health emergency: Practices and implications from the COVID-19 pandemic.” *JMR Medical Informatics*, 2020;8(7)e19866.
6. J Wosik, M Fudim, B Cameron, et al. “Telehealth transformation: COVID-19 and the rise of virtual care.” *Journal of the American Medical Informatics Association*, 2020; 27(6)957-962. doi: 10.1093/jamia/ocaa067

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7. B Seto. Telehealth's time: More Kaiser Permanente members get comfortable with virtual visits during COVID-19 pandemic. *Permanente Medicine*. Kaiser Permanente. May 11, 2020 (accessed Sept. 3, 2020).
8. Kaiser Permanente Institute for Health Policy. Fact Sheet: Transforming Care Delivery with Telehealth at Kaiser Permanente.
9. G Weigel, A Ramaswamy, L Sobel, et al. "[Opportunities and barriers for telemedicine in the U.S. during the COVID-19 emergency and beyond](#)." Kaiser Family Foundation, Women's Health Policy, May 11, 2020 (accessed Aug. 6, 2020).
10. A Perry. [Recommendations for Designing High-Quality Telehealth](#). Institute for Healthcare Improvement. April 30, 2020 (accessed Sept. 10, 2020).
11. Rheuban KS. Telemedicine: Facilitate access to care for your patients. AMA STEPS Forward Team-Based Learning module. Oct. 7, 2015. <https://edhub.ama-assn.org/steps-forward/module/2702689> (accessed July 22, 2020).
12. JP Marcin, NM Cohen, C Lowery, et al. "Special Edition Perspective: Technology responses to COVID-19." Agency for Healthcare Research and Quality. PS Net, Perspective on Safety. July 21, 2020.

**Other resources:**

- **American Medical Association's Telehealth [Implementation Playbook](#)** has an appendix that includes the following resources:
  - Identifying Measures of Success for a Telehealth Program
  - Selecting a Vendor Guide
  - Key Financial and Legal Documents
  - Key Considerations When Designing a Telehealth Workflow
  - Telehealth Workflow Example
  - Telehealth Clinical Roles and Responsibilities
  - Telehealth Patient Education Workflow
  - Patient Take-home Prep Sheet
  - Lessons Learned Worksheet
- **Health & Human Services' [Telehealth Toolkit for Patients](#)**
- **Institute for Healthcare Improvement's [Telehealth webpage](#)** has extensive resources, including:
  - [How Planning for Failure Can Make Telehealth Safer](#) — Includes examples using a Failure Modes and Effects Analysis (FMEA) tool to identify what could go wrong with a telehealth visit.
  - [Recommendations for Designing High-Quality Telehealth](#)
  - [Using QI Methods to Adapt to Virtual Care Delivery](#)
  - [The Keys to Effective Telemedicine for Older Adults](#)

**Guidance from medical professional associations:**

- **American Academy of Sleep Medicine**  
[American Academy of Sleep Medicine \(AASM\) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders](#) (*Journal of Clinical Sleep Medicine*. 2015;(11)10:1187-1198)
- **American College of Cardiology, American Heart Association, Heart Rhythm Society, Asia Pacific Heart Rhythm Society, European Heart Rhythm Society, and Latin American Heart Rhythm Society**  
[HRS/EHRA/APHS/LAHS/ACC/AHA Worldwide Practice Update for Telehealth and Arrhythmia Monitoring During and After a Pandemic](#) (*Journal of the American College of Cardiology*. June 11, 2020. In Press, Journal Pre-proof)
- **American College of Physicians**  
[Policy Recommendations to Guide the Use of Telemedicine in Primary Care Settings: An American College of Physicians Position Paper](#) (*Annals of Internal Medicine*. 2015;163(10):787-789)

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- **American Heart Association/American Stroke Association**  
[A Review of the Evidence for the Use of Telemedicine Within Stroke Systems of Care: A Scientific Statement from the American Heart Association/American Stroke Association](#) (*Stroke*. 2009;40:2616-2634.)
- **American Psychiatric Association**  
[Telepsychiatry and COVID-19: Update on Telehealth Restrictions in Response to COVID-19](#)  
(Updated May 1, 2020)
- **American Telemedicine Association's Telehealth Resource Center** provides a comprehensive collections of guidelines, including:
  - [Telehealth Practice Recommendations for Diabetic Retinopathy](#) (American Telemedicine Association, Ocular Telehealth Special Interest Group, and the National Institute of Standards and Technology Working Group. May 2004)
  - Practice Guidelines for Teledermatology (*Telemedicine and e-Health*. 2016;22(12):981-991.)

Note: This is not an all-inclusive list.



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