The COVID-19 pandemic spurred rapid and widespread implementation of synchronous virtual care (ie, the delivery of clinical care via telephone or video-based appointments). Although this shift was initially necessary to maintain safe access to medical care during the pandemic, it occurred despite a scarcity of evidence about the equivalence of in-person and virtual care modalities. As health care systems approach some equilibrium in their use of these technologies, we can begin to ask the important question: how well does virtual care work compared with traditional, in-person care? Given that approximately one-quarter of all outpatient primary care encounters are now performed through virtual means, understanding how telehealth visits affect quality of care, downstream resource use, and health outcomes is of utmost importance.

In their study, Shah and colleagues performed a retrospective cohort assessment of more than 16,000 unique emergency department (ED) encounters within an integrated academic health care system to examine whether the rates of ED return visits and hospitalization differed between patients who obtained in-person or telehealth post-ED discharge follow-up. Using multivariable logistic regression to adjust for known confounders that are associated with telehealth and ED utilization, the authors found that post-ED discharge telehealth follow-up visits were associated with an increased rate of return visits to the ED (28.3 more returns per 1000 encounters) and hospitalization (10.6 more hospitalizations per 1000 encounters) compared with in-person follow-up visits. While the study has some notable limitations (eg, residual confounding and lack of ability to track ED visits and hospitalization outside their health care network), the findings appear to have biological plausibility and, importantly, the potential to affect how health care systems use telehealth moving forward.

While telemedicine has been heralded for its potential to improve health care access and convenience, the findings of the study by Shah et al highlight the need to better understand the limitations of this care modality. Like any other medical intervention, telemedicine can have unintended consequences that eclipse its benefits. Some of these limitations include diminished patient-clinician relationships, decreased efficiency of health care delivery, and lower quality of care. Other research has highlighted the lack of physical examination as an obvious limitation of telehealth and one that could easily lead to poor quality and missed diagnoses. For example, a recent analysis of more than 125 million primary care visits between 2018 and 2020 found that blood pressure assessments occurred in only 9.6% of telemedicine visits vs 69.7% of office-based visits. Such work highlights what many clinicians already know and recognize: telemedicine visits are an inherently different type of interaction from their in-person counterpart.

The authors’ findings may also affect pending national telehealth policy. During the COVID-19 public health emergency period, the Centers for Medicare & Medicaid Services allowed for telehealth visits to be billed at the same rate as in-person visits. The 2023 Medicare Physician Payment Schedule proposes to discontinue reimbursement for audio-only telehealth services due, in part, to concerns over potentially lower quality care. Given that most telehealth services are delivered over the telephone (rather than through video-based services), such policy changes could have substantial impact on how and when such services are used. While on the surface, the findings of the study by Shah et al may support such changes, we should recognize that these adjustments are potentially regressive in nature and could disproportionately affect safety-net populations and health care systems in which the majority of virtual care is provided through audio-only means. Because video-based care requires internet access, a smartphone or computer, and underlying digital
literacy, older adults and those with lower income or living in rural places will be at even greater risk of being left behind should such legislation pass.

Although the findings of the study by Shah et al² may be viewed as a potential setback in the virtual care revolution, they should instead be seen as a call for more study into how to optimally use virtual care-based technologies. For instance, are there specific conditions or disease states that can be managed with virtual care? A growing body of research suggests that there are. A recent study performed in the Veterans Health Administration among patients with diabetes⁶ found no differences in ED utilization or hospitalization when comparing in-person with virtual care visits. Other work has found that a multicenter tele-urgent care program could safely decrease emergency department utilization for nonemergent issues.⁷ Future research should further examine whether there are differences in quality and outcomes when video-based care, compared with telephone-based care, is used. As health care systems’ virtual care infrastructures continue to grow and patients become more accustomed to using video-based technologies, answers to this question will become vital. Finally, given that virtual care is now an ingrained aspect of health care provision, we will need to explore what is the right mix of virtual and in-person care for our patients.

Altogether, the work by Shah et al² is important not just for its specific findings, but for the deeper, more nuanced questions it begins to raise. As health care systems continue to navigate the uncharted waters of virtual care, many of these questions will need to be answered—and fast.

ARTICLE INFORMATION
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