

COMMENT

Telehealth and pediatric care: policy to optimize access, outcomes, and equity

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The Centers for Medicare and Medicaid Services (CMS) defines telehealth as “the use of electronic information and telecommunications technology to extend care when you and the patient aren’t in the same place at the same time”.¹ CMS differentiates between different telehealth modalities, including live interactive (synchronous) telehealth, store-and-forward (asynchronous) telehealth, and remote patient monitoring. Prior to the COVID-19 pandemic, telehealth was infrequently used in pediatric care, with approximately eight visits annually for every 1000 children,² although specific telehealth models were growing including telepsychiatry and commercial direct-to-consumer telehealth.³ Barriers to uptake included payment policy that varied across state and health plans and that limited the clinicians who could provide virtual services, the locations where patients could receive virtual services, and the payment that could be expected.

With the COVID-19-related public health emergency (PHE), barriers to telehealth relating to clinician payment, patient co-pays, patient site of care, and HIPAA compliance were rapidly removed. At the same time, non-financial incentives to use telehealth were suddenly substantial, in that remote care enhanced safety from infectious risk for both clinicians and patients. In March and April 2020, primary care and subspecialty pediatricians rapidly pivoted their practices to deliver a large proportion of care via live interactive telehealth video visits.^{4,5} As the pandemic evolves and the eventual end of the PHE looms, there is an urgent need to develop policy to support the ongoing use of telehealth in ways that promote optimal child health outcomes and equity. Here we discuss principles of optimal telehealth use and the policies needed to support such use.

WHY USE TELEHEALTH IN PEDIATRICS?

We propose first and foremost that efforts to advance telehealth in pediatrics should be pursued with clear goals in mind. Telehealth should not be promoted simply for the sake of increasing telehealth, but rather as a tool to meet specific identified needs. Potential reasons to use telehealth are plentiful. The rapid transition to live interactive telehealth in 2020 occurred with the goal of delivering care while maintaining patient and clinician safety.⁶ A similar rationale can support the use of telehealth to reach patients in areas experiencing natural disasters⁷ or other circumstances where there may be a risk to bringing patient and clinician to the same locality.

An alternative reason to use telehealth might be to enhance the delivery of care to patients not adequately served by in-person systems of care—these might be patients currently experiencing significant barriers to in-person care or patients with conditions that might benefit from more frequent check-ins. Relatedly, telehealth may be deployed to advance health equity by seeking to enhance the delivery of care to a specific marginalized population, such as rural youth, transgender youth, or refugee youth.

Another reason to use telehealth might be to maintain the current level of care but at a reduced level of family burden by reducing time, costs, and/or travel burden. Each of these reasons—enhanced safety, enhanced health care receipt, enhanced equity, enhanced family-centeredness—are valid reasons for telehealth program development, but naming a specific population health goal can help clarify how telehealth can help reach success and what success will look like.

HOW CAN TELEHEALTH SUPPORT PATIENT-CENTERED GOALS?

Telehealth can connect patients to care across space and time, but to truly advance population health, telehealth must connect the right patients with the right type of virtual care. If we envision the varied unmet health care needs across a pediatric population, we can imagine multiple ways that telehealth might (or might not) fill the existing gaps. If telehealth visits are distributed without attention to the baseline unequal needs for care, significant inequities in unmet needs may remain, especially because those with unmet health needs (e.g., rural or low English proficiency populations) may also face barriers to telehealth. In contrast, if telehealth encounters are intentionally deployed so that those with the greatest need experience the greatest use, then telehealth may truly be advancing health equity. The key message here is that in the context of unequal need for care across individuals and populations, we need to strive not for equal use of telehealth services but rather for equitable use.

An additional complexity, however, is that specific care needs may or may not be adequately supported by different telehealth modalities. For example, the unmet need for interval depression screening and antidepressant management may be supported by synchronous or asynchronous telehealth encounters in the context of a longitudinal care relationship. Unmet need for dental fluoride varnish application or childhood immunizations, however,

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may remain unmet even after a virtual visit (although delivery could be coordinated during the visit). Similarly, cardiologists may be able to review lipid profiles or electrocardiograms remotely and provide asynchronous guidance to patients or primary care clinicians, but they will only be able to evaluate a murmur through in-person examination or telehealth augmented with teleauscultation devices. Audio-only telehealth encounters may provide adequate mental health care, and store-and-forward image sharing may support the diagnosis and treatment of a rash, but store-and-forward mental health or audio-only dermatology would be of lower quality. Thus, for services that can be delivered by a specific telehealth modality, equitable telehealth use may support equitable care delivery and health outcomes. In contrast, for services that cannot be delivered through a specific telehealth modality, no volume of that telehealth modality will alter service receipt or improve related outcomes. Striving for equitable telehealth use will not advance quality or equity if the services being delivered are ineffective or are lower quality than in-person care.

In addition to considering which patients most need telehealth services, how to reach them, and how to align telehealth modalities with the services or outcome of interest, optimal telehealth programs may also be informed by understanding the constraints of a given health system. For example, when considering the broad goal of improving attendance at subspecialty visits after initial referral, identifying the specific bottleneck in the referral process may guide program development.⁸ Live interactive video visits can be an ideal strategy for overcoming geographic barriers to visit attendance. In contrast, systems plagued by inadequate subspecialist supply to meet demand may benefit instead from prioritizing asynchronous provider-to-provider electronic consultations.

Several other system-side factors are essential for optimizing telehealth impact. Like any clinical tool, the expertise, training, and experience of the clinician on the other side of the tool is an essential factor in determining the quality of care. Additionally, the incorporation of peripheral devices and telepresenters may assist with the transmission of clinical information that might otherwise be unavailable. At the same time, designing applications with minimal bandwidth and memory requirements and for multiple operating systems may enhance the digital accessibility of the services.⁹ Scheduling processes, timeliness of care, and usability of digital interfaces may impact clinician and patient satisfaction.¹⁰ Ensuring cultural and linguistic appropriateness throughout intake, connection, encounter, and follow-up processes is essential for high-quality, equitable care.^{11,12} Knowledge of local contexts, in-person care options, pharmacies, and emergency departments can optimize longitudinal care management. The optimal combinations and tradeoffs between these different design elements are actively being explored by innovative teams. Incorporating patient and family representatives, maintaining a critical eye for system-level and policy-level barriers, and maintaining clear goals and metrics can help iterate toward success.^{12–14}

HOW SHOULD TELEHEALTH SUCCESS BE MEASURED?

Aligning with the need to envision telehealth as a tool in support of specific goals, telehealth success should not be measured by volume targets. Instead, telehealth success should be measured in ways that align with overall population health goals, such as improving health care receipt, enhancing equitable health care delivery, or reducing family burden. Existing measures of preventive, acute, and chronic disease management may provide a means to assess some of these goals. For example, for practices that use live interactive video visits, the same goals of regular follow-up for children with ADHD, of adequate use of asthma controllers, and depression screening for adolescents remain

relevant. Analysis of these measures during specific visit types and across subpopulations with either known existing disparities or with plausible differential access to telehealth is essential to ensure that telehealth programs reduce rather than worsen or maintain inequities, but telehealth should ultimately be viewed as a means of driving toward overarching (rather than telehealth-specific) population health goals.

HOW CAN POLICY SUPPORT TELEHEALTH SUCCESS?

Policy opportunities to support telehealth in practice are complicated, due to the multitude of state and federal laws that govern the practice of telehealth today. The problems—and potential solutions—break down into four buckets:

1. **Payment for services:** the PHE rapidly moved public and private payers in the same directions, but subsequent changes in payment models have resulted in a “crazy quilt” of payment structures across States, health plans, and telehealth modalities.¹⁵ This has left patients unsure of what is covered and providers unsure of what payment can be expected now and when the PHE ends. The Federal government, through CMS and the relationship built with the commercial payers through the Health Care Payment Learning & Action Network infrastructure, should work to align payment structures and maintain levels of payment for live interactive video visits at parity with in-person visits. We assert that optimal telehealth services for children are provided through the primary care medical home and the surrounding subspecialty neighborhood.¹⁶ For telehealth to be integrated with in-person pediatric practices, payment parity is essential to support the infrastructure and the flexibility needed for practices to provide care for each child through the modality that each individual child and family require. Regarding patient site restrictions, as pediatricians, we specifically require ongoing payment for live interactive video visits delivered in the places where children spend their time: home, school, childcare settings. In addition, to enhance needed access to pediatric subspecialty care, CMS should encourage all state Medicaid programs to cover provider-to-provider store-and-forward telehealth (electronic consultations) at the level of Medicare payments for these services. Stability in fee-for-service payment is the key to allowing practices to plan thoughtfully how to incorporate telehealth into their primary care or subspecialty care practice. As payment moves to prospective payment models, quality metrics focused on outcomes, equity in outcomes, and patient/family experience will be essential in judging the success of telehealth-integrated practices.
2. **Licensure, privileges, and malpractice:** currently, the practice of medicine is regulated at the State level and is subject to the laws in the State in which the patient is physically present at the time of the encounter. Under the PHE, clinicians have been able to practice telehealth across state lines, which has been essential for clinicians to offer telehealth services to established patients attending college in other states, to established patients who may live across state lines in border towns (e.g., Kansas City, New York City, Philadelphia), and to new or established patients in states with a low supply of clinicians. The legal protection for this practice will end when the PHE ends, forcing clinicians to obtain multiple state licenses or to provide care differently to patients based on residential state. The interstate licensure compact, which expedites licensing in multiple states, has gained traction,¹⁷ but Federal action to further ease the path for reciprocity between State Boards of Medicine is needed to realize the potential for

telehealth services to equalize the availability of pediatric care across states. Other state-regulated professional requirements currently in play include regulations about online prescribing in general, online prescribing of controlled substances, and the ability to establish a patient-provider relationship via specific telehealth modalities. For example, while most states specify that online questionnaires alone are inadequate to establish the patient-provider relationship needed for prescribing, there is variation in regulations about the establishment of a relationship via audio-only and audio-video telehealth.¹⁵

Balancing access, equity, and quality are key considerations in advocating for high-quality telehealth services for all children while avoiding promoting opportunistic, low-quality, or inequitable services.

3. Appropriate technology: the need for better availability of broadband is essential, particularly in rural, tribal, and other marginalized communities, including low-income urban areas experiencing “digital redlining”.⁹ Financial access is needed as well, requiring ongoing support and expansion of the Affordable Connectivity Program. At the same time, there is a need for telehealth applications that are child/family friendly, HIPAA-compliant, and able to function in the context of the bandwidth available in the sizable percent of homes connected only via smartphone devices and mobile networks.¹⁸ In addition, telehealth platforms need to be tailored to work with the pediatric population, which can involve multiple caregivers and households, interpreters, or social service agencies in a single encounter. Finally, the platforms must allow for appropriate levels of adolescent confidentiality, which again can vary from State to State. To promote access and equity in access, standards could be set forth for telehealth platforms to meet to certify as equitable telehealth platforms (e.g., ability to function on varied mobile operating systems; function in multiple languages; incorporate multiple individuals and interpreters; incorporate chat functions to allow for the transmission of images when video fails and to allow adolescents to communicate with enhanced confidentiality if in a shared space). Following the model under development for voluntary pediatric electronic health record certification,^{19,20} an “equitable telehealth platform” certification could help developers and systems striving to support equity in telehealth.
4. Appropriate goals: the Office of the National Coordinator, in conjunction with CMS and the Maternal and Child Health Bureau, are in an excellent position to pull together the appropriate stakeholders and set national and regional priorities for telehealth in the service of children and youth. As noted above, we propose that these priorities should focus on improving health care receipt and enhancing equitable health care delivery, measured through existing quality metrics, rather than telehealth-specific volume or metrics. Priorities could also include reducing family financial and time burdens associated with pediatric care, which may require additional metrics. A well-considered national agenda would serve to inform and align the broader federal efforts in this area.

In conclusion, telehealth offers an opportunity to deliver pediatric care differently—to reach more families more often, more equitably, and with less burden. The future of telehealth, however, is not yet secured in state policy or state Medicaid programs. It is imperative that we advocate for telehealth payment, policy, platforms, and metrics that meet the quality and equity needs of our pediatric patients.

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COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

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