



# Telehealth: Opportunities to Improve Access, Quality, and Cost in Pediatric Care

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The use of telehealth technology to connect with patients has expanded significantly over the past several years, particularly in response to the global coronavirus disease 2019 pandemic. This technical report describes the present state of telehealth and its current and potential applications. Telehealth has the potential to transform the way care is delivered to pediatric patients, expanding access to pediatric care across geographic distances, leveraging the pediatric workforce for care delivery, and improving disparities in access to care. However, implementation will require significant efforts to address the digital divide to ensure that telehealth does not inadvertently exacerbate inequities in care. The medical home model will continue to evolve to use telehealth to provide high-quality care for children, particularly for children and youth with special health care needs, in accordance with current and evolving quality standards. Research and metric development are critical for the development of evidence-based best practices and policies in these new models of care. Finally, as pediatric care transitions from traditional fee-for-service payment to alternative payment methods, telehealth offers unique opportunities to establish value-based population health models that are financed in a sustainable manner.

## INTRODUCTION

Telehealth, or the use of technology to deliver health care across a distance, has the potential to expand patient access to pediatric expertise and enhance communication among clinicians, resulting in more efficient, higher-quality, and less-expensive care. This technical report, which accompanies and supports the policy statement published earlier,<sup>1</sup> discusses the ways telehealth can improve access to pediatric care, the impact of telehealth on the current and future pediatric

## abstract

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workforce, and the critical need for health equity considerations in telehealth implementation. Pediatric care delivered remotely will require adherence to the same quality standards as care delivered in person, even if the level of care and completeness of a remote evaluation differ when compared with traditional in-person visits. Beginning a patient encounter via telehealth can add value by expediting evaluation in a convenient manner. This report will review the role of the pediatric medical home<sup>2</sup> as the ideal environment for delivering and coordinating remote care, assess the role of research and metric development for high-quality, evidence-based telehealth care, and detail the financial impact of telehealth on physician practices for success in current and future payment models.

## **IMPROVING ACCESS TO PEDIATRIC CARE THROUGH TELEHEALTH**

### **Use of Interprofessional Consultations to Address Geographic Disparities**

Geographic barriers and disparities in the geographic distribution of pediatric physicians across the country have resulted in many underresourced populations.<sup>3,4</sup> These shortages may exist in any setting, whether rural, suburban, or urban.<sup>4</sup> More than 17 million children live more than a 1-hour drive from a regional children's hospital, and the maldistribution of pediatric health care is a contributing factor in the differential health outcomes observed among populations living in rural and other underresourced communities, particularly for children and youth with special health care needs.<sup>5,6</sup>

Implementation of technology allowing for virtual visits can improve some geographic disparities by expanding the reach of general

and specialty care into communities that otherwise would not have access but requires adequate broadband connectivity and access to equipment. Interprofessional consultation allows for the sharing of specialized pediatric knowledge with locations that would otherwise lack access to in-person pediatric expertise, resulting in more appropriate utilization of health care services, provision of higher-quality and more comprehensive care, and improved evidence-based practice in nonpediatric centers.<sup>2,7-14</sup> Additionally, these interactions can enhance a local provider's comfort and competence in managing specific medical issues by providing repeated observation and interaction with subspecialty consultation remotely and may reduce unnecessary interfacility transfers.<sup>6</sup>

Remote consultation is particularly important when time is of the essence. Emergency, critical care, and delivery room settings can benefit from immediate support when pediatric and neonatal resuscitation protocols and medications are indicated but where appropriately trained pediatric experts are unavailable.<sup>13</sup> In adult patients, an evidence base has been established for the use of telehealth for the emergency treatment of stroke, remotely providing timely expertise resulting in high-quality, cost-effective specialty care.<sup>15-17</sup> Likewise, interprofessional consultation with pediatric medical subspecialists and surgical specialists<sup>18-23</sup> can improve the timely availability of advanced expertise to children and youth,<sup>24</sup> with comparable accuracy in diagnosis, treatment, and disposition planning to in-person consultation.<sup>25-27</sup> Smaller hospitals and hospital systems can partner with larger academic centers to develop the systems to support

emergent telehealth services. Successful remote consultation depends on systemic systems integration for the rapid transmission of information, in addition to provider willingness and availability. These systems also have the potential to reduce cost by helping with the assessment and triage of patients and the determination of transfer urgency.<sup>13</sup>

### **School-Based Telehealth**

Because children spend a large part of their time in centralized school settings, telehealth provides the significant opportunity to bring care to the child via remote care encounters by coordinating with and expanding existing programs. School-based telehealth programs have been shown to increase opportunities for both acute and chronic care for children and adolescents,<sup>28-33</sup> reduce pediatrician and pediatric provider travel,<sup>34</sup> and provide an early means of evaluation and intervention for acutely ill patients,<sup>35</sup> as well as address developmental, behavioral, and educational issues.

### **Leveraging the Pediatric Workforce Through Telehealth**

The American Academy of Pediatrics (AAP) has previously discussed ways that telehealth can impact the pediatric workforce,<sup>36</sup> both in positive and negative ways. In many circumstances, the potential efficiencies afforded by virtual models can result in pediatricians' ability to provide care to more children and their families, thus increasing physician capacity.<sup>10</sup> The use of virtual technologies, such as remote patient monitoring, telehealth for high-risk or technology-dependent patients, and preprocedural evaluation and postprocedural follow-up care, can increase the quality, efficiency, and capacity of practices.<sup>37,38</sup>

Telehealth technologies can be used for multidisciplinary care, interspecialty rounds, case management conferences, and case discussions. These approaches involving primary care physicians, nonphysician providers, and patients and families can result in more efficient use of existing pediatric medical and surgical specialists,<sup>39</sup> and at the same time provide education for primary care physicians that can increase their comfort with providing more complex care. Several clinical programs use telehealth in these ways to increase both the overall number of patients cared for, as well as the overall quality of care provided to patients with specific medical conditions.<sup>40–42</sup> Many surgical and procedurally focused specialties are limited in the degree to which they can transition services to virtual care, but preprocedural evaluations and clearance, postoperative evaluations, and follow-up care provide opportunities to leverage these tools effectively even for those specialties.<sup>18–23</sup>

Telementoring, or using telehealth to remotely educate physicians and providers in the care of children and adolescents, can improve quality of care while helping to reduce unnecessary, invasive, and costly care. In many circumstances, including mental and behavioral health, care can be delivered locally through a physician-led medical home under the leadership of a general pediatrician, or a pediatric medical or surgical specialist located at a distant site. This interdisciplinary model of care can improve communication and coordination, supporting the physician-led medical home in the patient's local community for all children and youth, particularly those with special health care needs. This model of care moves knowledge rather than people

across physical distances, and initiatives such as Project ECHO (Extension for Community Healthcare Outcomes) have demonstrated positive effects in population health management.<sup>43,44</sup> The AAP has used Project ECHO to become a leader in developing, training, supporting, and leading pediatric-specific educational modules focused on specific medical, mental, and behavioral health conditions.<sup>37,31,45</sup>

As telehealth use becomes more widespread, its role and its integration into care delivery models will become important parts of the medical school curriculum, postgraduate medical education, and continued training of established physicians and providers. Competence in topics such as practice and patient readiness, privacy and legal considerations,<sup>46,47</sup> access and equity issues, professionalism and communication, cultural competence in the face of implicit bias, financial implications for a practice, and the appropriate provision of remote clinical care will become important for all medical education programs at every level.<sup>48</sup>

#### **EQUITABLE ACCESS TO TELEHEALTH: ADDRESSING THE DIGITAL DIVIDE**

Disparities in access to high-quality pediatric care stem from a multitude of issues, including geography, educational and socioeconomic factors, access to health insurance, structural racism and discrimination, age, and language barriers.<sup>49–51</sup> These disparities have resulted in numerous medically underresourced communities,<sup>52</sup> including people of color, non-English-speaking individuals, rural populations, and children and youth with special health care needs (CYSHCN). These populations have additional barriers to accessing telehealth service, yet they are the very populations who would stand

to benefit most from improved access to care through telehealth. This “digital divide” stems from multiple issues. Financial barriers can limit access to hardware, devices, and high-speed broadband Internet, which can then limit or delay the implementation of new technologies in these populations. Inequity may be worsened by payment policies that require video contact during a telehealth visit, when some patients may only have access to telephonic service. Recognition that disparities in digital literacy and access are a social determinant of health that can further increase inequities is important for pediatric providers.<sup>53</sup> Socioeconomically disadvantaged individuals may be less likely to have access to a suitably private physical space at home or work from which to participate in a telehealth encounter, particularly if it requires the use of video. Language barriers impact the usefulness of telehealth services for many non-English-speaking people,<sup>54,55</sup> and because much telehealth care is now being delivered through electronic health record (EHR) patient portals, equity of access may be further compromised when language barriers exist. Registration for and use of digital patient portals is significantly lower for patients and families whose primary language is not English.<sup>56</sup> Other platforms used for telehealth calls may allow for interpretation services during the encounter, but scheduling, messaging, and other upstream steps are sometimes only available in English.

A major benefit of telehealth expansion is to provide access to care to populations that have historically been underresourced,<sup>7,29</sup> such as Black, American Indian, people of color, and CYSHCN, who have limitations in access to a

medical home.<sup>57,58</sup> Improving the financial, educational, technological, and infrastructure resources, such as high-speed broadband Internet access that is lacking in many areas of the country that also lack pediatric primary and specialty care, will be critical to achieving equity in the access to telehealth services. The coronavirus disease 2019 (COVID-19) national health emergency was a defining moment for telehealth care,<sup>59-61</sup> as remote care rapidly expanded in nearly every field of medicine but left unanswered questions about whether the expansion was equitably distributed.<sup>62-69</sup> In one study, patients in certain racial or ethnic groups participated less in video visits compared with audio-only visits during the early pandemic,<sup>71</sup> raising significant concern that underlying health care disparities were exacerbated during the lockdowns and reopening. New models of digital health care may create additional barriers for these underresourced populations, including access to technology.<sup>52,71-76</sup> Additionally, health care providers serving underresourced communities may also lack the resources to implement telehealth services for their patients, and support for these providers will also be necessary to adequately address the health equity concerns for implementation of telehealth in these populations.

### **ENSURING QUALITY OF PEDIATRIC TELEHEALTH THROUGH THE MEDICAL HOME**

The medical home has continued to adapt to new technologies and respond to challenges to the health and well-being of children and adolescents, and the COVID-19 pandemic has been particularly challenging.<sup>77,78</sup> Responding to these challenges has helped prepare primary care pediatric practices to face future changes in the delivery of care.<sup>79</sup>

In the past, telehealth has been criticized as potentially disruptive to continuity of care. Independent telehealth entities lacking a connection to the medical home and its EHR may result in incomplete documentation of care in the patient's record and serve to increase fragmentation of care. The availability of platforms that integrate with the EHR can mitigate this disruption, especially if the providers of telehealth care are the same ones who provide care through the medical home. Telehealth should be a tool to reduce fragmentation of care, not increase it. It can improve efficiency, can make better use of a physician's limited time, and may also reduce the need for ancillary staff, thus improving the cost-effectiveness of care.<sup>80</sup>

Significant controversy exists regarding quality of care using telehealth. There are two major components to this concern: the provider of care and the technical aspects of the encounter. Appropriate training in the care of pediatric patients and familiarity with pediatric treatment protocols are needed for anyone providing care to children and adolescents. Although newer technologies may be developed, current limitations may make it difficult or impossible to provide a complete assessment of a child remotely, and in this situation, there will need to be a plan, including available facilities, to convert the encounter into an in-person visit. Recognition of the limitations of the physical examination is important to consider in the implementation of telehealth, particularly if there is any concern for child abuse or difficulty ensuring confidentiality for an adolescent patient in a remote setting. These concerns must continue to be addressed even if a telehealth visit is converted to an in-person encounter.

The pediatric medical home is the ideal context for pediatric telehealth

services, allowing for the expansion of access to health care services while continuing to emphasize the medical home as the centralized source of a child or adolescent's health care.<sup>2,14</sup> Whether in-person or remote, the medical home provides care that is patient- and family-centered, comprehensive, team-based, coordinated, accessible, and focused on quality and safety.<sup>81</sup> Support for the medical home model of care is particularly important for CYSHCN and other underresourced populations who are at greater risk of fragmented care overall.<sup>82,83</sup>

In addition to coordinating care, there are practical benefits to implementing telehealth within the medical home. Connecting with patients remotely can allow for improved triage and acute visits, reduce missed appointment rates, increase adherence to recommended therapies, and ensure the appropriate frequency of recommended physician visits, all of which can improve disease management.<sup>40,84,85</sup> Additionally, this technology can minimize burdens of parents and other caregivers missing work, children and adolescents missing school, and costs and risks associated with travel.<sup>7,36,86-88</sup>

Although advancing technology, including the development of diagnostic equipment that may be employed by the patient or parent under the direction of a remotely located provider, may make remote diagnosis more available in the future, limitations of the remote encounter will likely remain when the provider cannot have hands-on contact with the patient. Certain conditions that do not require such hands-on contact, such as attention-deficit/hyperactivity disorder and other behavioral and mental health diagnoses, including medication management, are ideally suited to telehealth management, with provisions for in-person monitoring of growth and laboratory studies.

For adolescents, telehealth can be used for contraceptive and reproductive health counseling, with assurance that, for sensitive topics, the clinician can create an environment in which adolescents can freely answer in confidence. Other conditions, including many illness visits and well-child appointments, require a detailed physical examination or laboratory confirmation for diagnosis, and the limitations of the remote encounter should not lead to treatment shortcuts without appropriate physical examination and testing. All quality assurance protocols apply equally to in-person and telehealth encounters to avoid a two-tiered system in which quality of care varies with the type of encounter. For example, to ensure quality in antibiotic stewardship, it is important to remember that the same confirmatory testing principles apply equally to antibiotic prescribing in all care settings.

Any care provided outside of the medical home,<sup>89</sup> including telehealth,<sup>14</sup> can lead to fragmentation of care and loss of continuity. Episodic care offered on-demand may seem on the surface to be cost-efficient to some payers and convenient to tech-savvy parents, but the loss of continuity, variable quality, and limited data on safety are substantial issues, the impact of which on patients, parents, and caregivers cannot be ignored.<sup>38,90</sup>

### **Special Considerations for Children and Youth With Special Health Care Needs**

CYSHCN have many health care needs that are best served in a medical home<sup>13</sup> and have additional needs such as care coordination that are particularly amenable to telehealth. Although these patients do need hands-on visits with a full in-person physical examination, in many instances, remote care can be a safe alternative to in-person care<sup>20</sup>

that reduces transportation expenses to families and payers, especially in children and adolescents whose health conditions and required equipment typically require use of ambulance transport. Using telehealth in place of some in-person encounters can reduce the risk of nosocomial infection, particularly in immunosuppressed and medically fragile populations. Behavioral and developmental assessments can be conducted in comfortable and natural home settings, and care coordination and patient education services can be delivered remotely in combination with intermittent in-person visits. For patients with medical complexity, especially those who require the assistance of technology at home, pediatric providers can coordinate via telehealth with home health staff to incorporate physical assessments and certain diagnostic services in the home environment, allowing intervention earlier in the course of potentially serious illnesses and potentially reducing the need for hospitalization. Group telehealth encounters, in which multiple interdisciplinary stakeholders synchronously collaborate with families to develop care plans based on shared decision-making, should be incentivized both for ongoing pediatric care and transition to adult care, particularly for CYSHCN.

Implementation of these services requires investment in platforms enabling remote care, and this is, in turn, dependent on adequate financing and infrastructure, which should be provided by payers as a medical benefit, and also requires input from families to develop effective remote care systems that can maximize privacy, dignity, and accommodation for disability under the terms of the Americans with Disabilities Act and other appropriate regulations. Federal

(Centers for Medicare and Medicaid Services), state (Maternal and Child Health Bureaus, Title V agencies), and local stakeholders should work together to ensure that telehealth policy is coordinated across the continuum of care and services, especially for CYSHCN. Encounters provided by telehealth should be among the medically necessary services covered under the treatment provisions of Medicaid's Early and Periodic Screening, Diagnostic and Treatment law. Health home and home- and community-based services options (ie, waivers) should be used to finance enhanced telehealth and remote monitoring infrastructure and ongoing services that promote high-value care and reduce the risk for morbidity and mortality. The Lifeline program<sup>91,92</sup> should be expanded to provide greater access to devices and connectivity for underserved populations, particularly those with special needs.

### **RESEARCH AND METRIC DEVELOPMENT FOR HIGH-QUALITY, EVIDENCE-BASED TELEHEALTH CARE**

Although many of the same measurements of quality of care can be applied for virtual visits as are applied to evaluate in-person services, the use of different protocols in virtual visits may require adjustments to the metrics and measurements used. There is already groundwork within the Centers for Medicare and Medicaid Services for the creation of digital quality metrics specifically targeted to reflect quality measures in the virtual care space, including metrics related to health care disparities.<sup>2,93</sup> Common data definitions and evaluation approaches are critical to enable the development of generalizable studies and to facilitate multicenter evaluations. Additionally, the lack of clearly defined reference and control groups is a common challenge encountered in the design of studies

of virtual care. Comparing a telehealth service to the same service provided in person may not account for the absence of certain services or specialty care in many locations where telehealth is a feasible alternative. A more appropriate control in such circumstances would be to the standard or level of care (or the communication/education standard) that would be provided in the absence of the telehealth intervention, which in some cases would be no services at all. Telehealth research comparisons have often relied on historical controls, which may only be sufficient if the prevailing conditions have not changed over time and if the relationship between usual care and the outcomes of interest has remained constant.

The published medical literature on telehealth has been positive regarding patient and parent satisfaction, provider satisfaction, feasibility, and the equivalence of telehealth encounters to in-person encounters.<sup>94–98</sup> However, these benefits have resulted from an ever-evolving portfolio of technologies and applications. Future evaluations of these tools will consider the impact of applications that may not have been foreseen during the initial design and application. They will also evaluate the impact of telehealth on disparate populations, with the goal of evaluating results in communities starting from different points on the scale of accessibility to care. In comparative studies involving telehealth, the use of randomized designs is preferable and, to date, underutilized; it may be appropriate under certain circumstances to randomize one or more of patients, physicians, or delivery sites.<sup>95–97</sup> The rapid rise in telehealth services in recent years allows for substantially larger study populations, improved clinical skills,

and decreased variability in telehealth operating procedures, which in turn provides an opportunity for more rigorous scientific approaches to be employed for telehealth evaluation after the COVID-19 pandemic. Several organizations, including the SPROUT (Supporting Pediatric Research on Outcomes and Utilization of Telehealth) program (which operates as the research subcommittee of the AAP Section on Telehealth Care),<sup>11</sup> are participating in efforts to study the scope and quality of pediatric telehealth to develop an evidence base for high-quality telehealth care.

Outcomes data, dealing both with clinical and financial measures, will likewise be required to assess the costs and benefits of this new technology.<sup>98</sup> Evidence and data will better guide development decisions, promote implementation of impactful and effective services, and allow for improved engagement of multiple stakeholders.

## **ADDRESSING COST OF CARE THROUGH ALTERNATIVE PAYMENT METHODS**

### **Payment in a Fee-for-Service System**

Payment for telehealth encounters can be viewed from many perspectives and, as a result, continues to be dynamic and sometimes controversial. Although some remote services can be provided without a physical office, a medical home still requires an office space for in-person encounters and well-child care, which may negate potential savings of virtual care. These expenses are not incurred by providers who exclusively use a completely virtual platform, but such a standalone platform will necessarily reduce the range and acuity of care which may be provided. In addition, the medical home will incur incremental hardware, software, and

administrative costs for the implementation of telehealth. If the telehealth services are provided by an outside entity and eliminate a revenue-generating encounter with the practice, this may have a negative impact on practice finances and, eventually, viability. For physicians participating in telehealth, virtual encounter payment will ideally equal payment for an office visit of equal complexity. The costs are different, but not necessarily less, for telehealth visits.<sup>99,100</sup>

If payers are seeking to reduce the inappropriate use of expensive emergency department services by the implementation of telehealth, this can be helped by instituting appropriate care pathways and financial incentives (to both physician and patient) to discourage the use of emergency department care in favor of communication with the medical home via telehealth. Variability in payment policy among insurers and Medicaid plans will also need to be eliminated if the goal is to encourage widespread adoption and implementation of telehealth care.<sup>101</sup> Finally, recognition of and payment for the value of other forms of digital encounters, both interprofessional consultation (such as digital consultations) and patient-facing (such as remote patient monitoring and digital therapeutics), can be implemented as part of a practicewide telehealth payment strategy.

### **Risk of Fraud, Abuse, and Overutilization**

The perceived risk of overutilization may be used to argue against the widespread adoption of telehealth services. However, the increased availability of care services to underresourced populations can serve as an opportunity to provide timely care while reducing costs

over the long term.<sup>85</sup> Increased utilization of relatively low-cost primary care services can be the leading indicator for lower overall costs because prevention and early detection are enhanced by more convenient access to primary care. There is the potential for fraud and abuse in any medical care encounter, and payers can use the same protocols for detection and prevention of fraud as are used for in-person care. The risk of fraud, abuse, and overutilization can also be reduced through the provision or coordination of care through the medical home rather than through standalone virtual care services.

### **Telehealth in the Value-Based Care Model**

Telehealth technology is well suited to a value-based care model because it may reduce health care costs associated with emergency department utilization, transportation, chronic and complex conditions, and hospital length of stay. There are numerous potential synergies between telehealth and other health care innovations that embrace virtual care, asynchronous communication, and physiologic monitoring and trending.

Remote patient monitoring solutions are emerging to include scheduled and on-demand video conferences, care pathways, and clinical decision support, as well as the capture of data from wearable devices and patient-entered data. All these inputs can then be subject to data analytics, predictive modeling, and machine learning. Approaches to individualized medicine, population health, care coordination, and social determinants of health may also leverage telehealth technology. The necessary data collection for these services can be facilitated by new technology and allow for the addition of telehealth care into an integrated care model.<sup>102</sup>

Consideration of value-based care models is essential going forward because some telehealth services, particularly in pediatrics, have limited potential to generate revenue relative to the costs required to develop and deploy such services. However, the potential cost savings for such programs are immense, especially in high-cost populations such as CYSHCN. For example, existing programs providing pediatric critical care telehealth services to remote emergency departments have demonstrated significant reductions in ICU admission and transfer rate.<sup>13</sup> Telehealth services for children and youth with special health care needs, delivered to their home, day care center, school, or local primary care office and integrated with remote monitoring tools and coordinated care teams, have clear implications for cost savings in a value-based model.

A proactive approach to developing services focused on reducing costs and demonstrating value will, therefore, be most likely to pay dividends both now and in the future, and a shared-savings model can encourage broad participation by all stakeholders. However, the financial and other burdens involved with the implementation of such services cannot be allowed to fall solely on the providers of health care services, but rather need to be shared by the stakeholders who stand to benefit from these programs, including state and federal governments, third-party payers, and industry vendors.

### **ADDITIONAL BARRIERS TO AND BENEFITS OF TELEHEALTH**

As addressed in the accompanying policy statement,<sup>1</sup> barriers to implementation include initial and ongoing costs, state and federal policies regarding licensure and

payment, credentialing requirements, cybersecurity, and malpractice concerns. Additional barriers include lack of interoperability among telehealth platforms, inadequate infrastructure to support telehealth encounters, inequity in digital literacy among patient populations, and lack of robust evidence and research on many telehealth topics. Finally, a new technology that removes in-person interactions from health care services can cause controversy because of the historical model of physician–patient interaction.

Regulatory policy regarding clinic and hospital privileging, interstate licensing, and payment parity has historically lagged behind changes in patient demand, technology, and business strategies. Before the COVID-19 pandemic, adoption by Medicaid varied widely among the states, whereas Medicare paid for interprofessional telehealth consultations, store-and-forward imaging studies (radiographs, photos), and the review of biometric patient data provided by remote monitoring systems, with some stipulations. However, most state Medicaid programs do not provide for payment to an out-of-state physician who is not registered with the program in the state where the patient is covered, creating another barrier to care. Providing care to an established patient who is located, even temporarily, in a different state than that where the physician is licensed is also problematic in some instances and also raises concerns for some about malpractice coverage across state lines. Both the Medicaid and licensure issues are especially problematic for providers and health systems located close to state borders because their service areas may routinely encompass patients from several states and obtaining Medicaid participatory status and multiple state licenses is time-

consuming and costly. Temporary accommodations have been put in place to address such issues during the COVID-19 pandemic and could be expanded, extended, and made permanent going forward. To ease multistate licensure for physicians, the AAP supports the independent Interstate Medical Licensure Compact, launched in 2017 (available in 29 states at the time of this publication), which has enabled the provision of telehealth services across some state lines,<sup>103</sup> but significant barriers still remain from variable cross-state licensure requirements. Updated information on this topic is available through the AAP, and the latest state-specific payment data are available from the Center for Connected Health Policy and the Health Resources and Services Administration regional telehealth resource centers.<sup>104,105</sup>

## CONCLUSIONS

With increasing familiarity, pediatricians will become aware of the benefits of telehealth in terms of continuity of care for their patients, as well as the financial and other potential benefits to their practices. The ability to provide asynchronous care by telehealth can improve the pediatrician's time management and efficiency, reduce the need for ancillary office staff to handle real-time interaction, improve documentation of encounters, improve compensation for remote services, and meet the needs of families who are increasingly demanding care on nontraditional schedules. The increased availability of appropriate, interactive care outside of normal office hours can also capture visit revenue for the practice that might be lost to outside entities, along with the potential for improved quality and continuity of care. Telehealth is an

opportunity to provide additional services that will be beneficial to all stakeholders, and practices will benefit by becoming proactive in offering appropriate telehealth services to their patients as an integral part of the medical home.

Telehealth has the potential to improve access to quality pediatric health care for all children and youth, but especially for historically underserved populations. These populations include, but are not limited to, people of color, rural populations, and CYSHCN. Extending the reach of the medical home through telehealth can lead to greater continuity of care, improved cost-efficiency, and reduced fragmentation of care, while at the same time facilitating access to geographically limited members of the pediatric workforce. Telehealth presents limitations to the traditional physical examination but does offer insight into other parts of the patient's life. The convenience of telehealth encounters could also represent an opportunity for early detection and prevention, as well as more efficient and accurate triage, referral, and necessary escalations in care when the right professional with the correct contextual knowledge is conducting the visit. As with any new technology, implementation will be critical to the ongoing use and sustainability of telehealth services, and the realization of benefits by all participants in the telehealth encounter. Equitable implementation of telehealth services will require specific attention to underresourced populations, with support for expansion of infrastructure, improvement of digital literacy, and financial support to provide this care to all patients.

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## ABBREVIATIONS

AAP: American Academy of  
Pediatrics

COVID-19: coronavirus disease  
2019

CYSHCN: children and youth with  
special health care needs

EHR: electronic health record

The guidance in this report does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, considering individual circumstances, may be appropriate.

All technical reports from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

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