



# Roadmap for Action

Advancing the Adoption of Telehealth  
in Child Care Centers and Schools to  
Promote Children's Health and Well-Being

August 2018



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# Foreword

**T**HE CHILDREN’S Partnership, the Winter Park Health Foundation, and Nemours Children’s Health System, in partnership with NORC at the University of Chicago, present this Roadmap for Action as a guide for interested stakeholders across the country—in schools, school districts, community health centers, hospitals, child care and early learning centers, counties, states, and the federal government—to move toward wider adoption of school- and child-care-based telehealth programs, which have shown promising results in numerous successful sites across the country.

On January 26, 2018, we held a convening entitled “Advancing the Adoption of Telehealth in Child Care Centers and Schools to Promote Children’s Health and Well-Being,” bringing together key experts from across the country to identify accelerators and systemic barriers to implementation of successful telehealth programs and to share best practices. Participants included leaders and experts forging the way in these innovative approaches to improve care access and quality for children.

These successful and innovative programs and the valuable lessons they provide are discussed in this Roadmap with the hopes that their impact on child health access, quality, and care can be replicated across the country. As such, the Roadmap is intended to serve as a guide to help promote the adoption of effective telehealth implementation strategies in school and child care settings across the country, including strategies for overcoming barriers and creating opportunities to help promote a supportive policy context for telehealth adoption. We highlight evidence-based outcomes for telehealth in schools and child care settings; describe factors that influence implementation and adoption of telehealth; and provide tools for next steps to support greater access to quality children’s health care.



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# Section I: Setting Up For Success

## Why Telehealth?

Telehealth (also referred to as telemedicine or telepractice) is not a new concept; it has been utilized in health care settings for the past 10 to 15 years. However, in the past five years, technological advancements and lower costs have made it so that widespread adoption of telehealth has not only become more possible but has also emerged as a critical tool for improving access to care and health outcomes. With greater capabilities, faster internet, mounting evidence, and less expense, the ability to effectively utilize telehealth today is light years from what was possible a decade ago.<sup>1</sup>

Technology continues, exponentially, to transform the ways in which children develop, learn, and interact with one another, their parents, teachers, and caretakers. New national and state initiatives have expanded the reach of high-speed internet to more communities, including remote and rural areas; strengthened educational effectiveness through the use of technology; and equipped health care providers and systems with technology to improve quality, care coordination, and overall effectiveness of health care delivery systems.<sup>2</sup> These advances are creating opportunities for widespread adoption of telehealth to improve access to care for children.



Photo Credit: UC Davis Center for Health and Technology

## The Case for School & Child Care Telehealth Programs

### ► Schools

In some parts of the country, telehealth in schools is emerging as an important tool to help improve access to primary, acute, and specialty care for children; improve the ability of families and youth to manage chronic conditions;

facilitate health education for children, families, and school personnel; and increase the capacity of local health care providers to better meet the health care needs of children and youth. Extensive studies of these programs have shown that they are also providing care to children who had previously not been utilizing health services or had been underutilizing care.<sup>3</sup>

### Primary Care

A 2016 report by the Children's Health Fund estimated that 20.3 million children across the United States lack sufficient access to primary care.<sup>4</sup> The report notes that school-based telehealth programs provide a

## Children's Health School Telehealth Program (Dallas, Texas)

The telehealth program at Children's Health in Dallas, Texas, is a successful school-based telehealth program. Dr. Stormee Williams, Medical Director for Children's Health School Telehealth Program, describes how, through telemedicine, she is able to provide quality health care to children who have limited access to pediatric providers. Children's Health encompasses two full-service children's hospitals in Dallas and Plano, Texas, with more than 50 specialties and subspecialties, 19 group primary care locations, multiple specialty centers, and a clinically integrated network of more than 300 private pediatricians. The School Telehealth Program began in 2013 with two preschool pilots, expanding to 27 K-12 rural, urban, suburban, and charter schools by 2015; 57 schools by 2016; 97 schools by 2017; and 112 schools in 2018.

The program currently treats children in schools with upper respiratory infections (influenza and strep throat); allergies; asthma; cuts and scrapes; fever; earaches; pinkeye; rash and skin irritations; and head lice. The student presents to the school nurse, who first calls the parent(s) and then the children's health appointment desk. The school nurse then takes the pupil's vitals and history and sends the information to the hospital registration staff, who enters it into the child's electronic health record (EHR). A pediatrician at the hospital is notified that the patient is ready. She calls the nurse and patient via live video and proceeds with the visit, assessing, diagnosing, and developing a treatment plan for the student. She then electronically sends a prescription to the pharmacy, if medication is needed, and sends a visit summary to the parent(s) as well as to the child's primary care physician.

The program has seen an eightfold increase in utilization since inception in 2013 (with 3,636 visits in the 2015-2016 school year and 4,907 visits in the 2016-2017 school year), while simultaneously reducing emergency room (ER) utilization. In addition, the program saw school nurse satisfaction improve, with survey findings showing that 86 percent of school nurses in the program indicate they believe their time spent was worthwhile, and 97 percent report that they would encourage use of the program by students. Supporting the Whole School, Whole Community, Whole Child model, Dr. Williams works closely with hospital and school administrators to bridge the access and care gap and advocate for technology and innovation in improving access to care.

means to increase access to pediatric primary care and to reduce children's absenteeism, particularly among vulnerable populations. In an earlier study, in 2003, the authors found that providing primary care telehealth services in schools was associated with reduced visits to the emergency department (ED).

The study also found that providing primary care telehealth services decreased parents' likelihood of potential wage loss and prevented families from overspending on health care.<sup>5</sup> In fact, based on parent/caregiver satisfaction surveys reported in 2017 by Children's Health School Telehealth Program Texas (CHST), 74 percent of parent(s)/caregiver(s) responded that



they would have had to miss work if their child had not received school telehealth services. Over 70 percent of the caregivers reported saving up to four hours with the school telehealth program, and 67 percent reported that they saved up to 25 miles of travel, resulting in an additional \$13.75 directly back in their pocket (calculated based on a rate of \$0.55 per mile for travel costs).

### Oral Health

Oral health care is essential to both children's health and ensuring success in school. Children who have poor oral health are three times more likely to miss school as a result of dental pain, relative to children with good oral health.<sup>6</sup> Additionally, in the United States, 20 percent of children ages 5-11 have at least one untreated decayed tooth.<sup>7</sup> To address access to oral health, some schools have established telehealth dental clinics in their facilities. Researchers in Rochester, New York, used the Health-

## Virtual Dental Homes (California)

In California, the Virtual Dental Home (VDH) is an innovative and cost-effective system for providing oral health care to children. Directed by the Pacific Center for Special Care at the University of the Pacific School of Dentistry, dental hygienists and assistants examine and collect dental information from patients in community settings—such as schools and Head Start sites. They send the information electronically via a secure, web-based system to the supervising dentist at a clinic or dental office. The dentist then uses the information to create a dental treatment plan for the hygienist or assistant to carry out. The hygienists and assistants refer patients to dental offices for procedures that require the skills of a dentist, and they help patients establish a dental home.<sup>9</sup> On-site dental services can be located inside a school, community center, or public facility, where dental hygienists and dental assistants see the child and provide professional cleaning, fluoride varnish application, sealants, and temporary fillings. A dentist, via telehealth technology, then reviews the X-rays, intraoral photos, and other data and creates a treatment plan for the child. Care coordinators then work with families to ensure treatment and follow-up is completed.<sup>10</sup>

e-Access telehealth network to compare dental screenings via telehealth-based intraoral cameras with screenings using visual dental examination. The researchers found that there was no statistical significance between the telehealth examination and the visual examination, leading them to conclude that the use of intraoral cameras could be a potentially cost-effective alternative to visual examinations for childhood caries screening.<sup>8</sup>

### Hearing and Speech

Early childhood hearing screenings are important for children's health and provide an opportunity to detect hearing loss and intervention to further limit loss and improve learning.<sup>11</sup> Evidence suggests that children who are screened for hearing and children who receive speech therapy via telehealth have similar outcomes to children who receive the services on-site. A study done at an elementary school in rural Utah showed that there was no difference between the hearing screenings conducted on-site

and those conducted via telehealth.<sup>12</sup> Another study at an elementary school in rural Ohio showed that students who received side-by-side speech therapy performed comparably to students who received speech therapy through videoconference.<sup>13</sup>

## Mental/Behavioral Health

Studies have shown that at least 1 in 5 children and adolescents (approximately 5 students in a classroom of 25) have a mental health disorder that causes some impairment in functioning, while only about 20 percent of these youth receive any mental health services.<sup>14</sup> Mental health care is not easily accessible to all children and adolescents who need treatment, and there is a long-standing shortage of child psychiatrists, particularly in rural areas. Emerging evidence suggests that providing mental health services in schools is an effective way to identify and reach children with mental health care needs. Telehealth also helps address ongoing shortages in child and adolescent psychiatry. Telehealth offers an innovative approach for effectively and efficiently providing access to mental health services in schools as well as for enhancing any existing services for vulnerable populations.<sup>15</sup>

Schools are using telemedicine as a tool to help diagnose and treat mental health and behavioral health conditions among children and adolescents.

## AB 2315 Pupil Health: Mental and Behavioral Health Services: Telehealth Technology: Guidelines (California)

In early 2018, The Children's Partnership sponsored California State Assembly Bill 2315, introduced by Assemblywoman Sharon Quirk Silva, which would require the California Department of Education (CDE), in consultation with the Department of Health Care Services (DHCS) and appropriate stakeholders, to develop guidelines for the use of telehealth technology to provide mental and behavioral health services to pupils in public schools, including charter schools, and to post the guidelines on or before December 31, 2019. In California today, the vast majority of children attend one of the state's more than 10,000 schools.<sup>16</sup> Unfortunately, most California schools do not have the resources to meet their pupils' physical, mental, and behavioral health care needs, which have become increasingly more complex.<sup>17</sup> Currently, only 2 percent of schools in California have a school-based health center.<sup>18</sup> Only 43 percent of public school districts have nurses.<sup>19</sup>

Telehealth is particularly important as a way to offer mental and behavioral health care amidst the shortage of child psychiatrists, psychologists, and autism-spectrum experts in the United States.<sup>20</sup> A recent review of the literature and model programs as well as focus groups with providers described opportunities and limits associated with school telemental health services and concluded that schools offer a positive environment for children to receive mental health care.<sup>21</sup> Evidence suggests that school-based mental health services promote greater follow-through and access to care, particularly among underserved youth, and that telemental health care can be “realistically and effectively used in school and community settings.” The authors of the study concluded that telemental health in schools was “well-received by both providers and recipients of care.”

Because of their general comfort with videoconferencing, many children and adolescents actually prefer telemental health sessions compared to traditional office visits. In fact, according to a 2015 Common Sense Media fact sheet on

## University of Maryland School Mental Health Program

The University of Maryland established a School Mental Health Program (SMHP) in 1989. It began with four schools and expanded to 25 schools, including elementary through high school. The goal of the program is to provide mental health promotion, prevention, and intervention. The program predominantly serves students with low socio-economic status (SES) in highly stressed communities with substantial violence exposure and substance abuse.<sup>24</sup>

The program is staffed by licensed social workers, psychologists, counselors, psychiatrists, and graduate-level trainees. The program involves the use of videoconferencing to deliver mental health care or education at a distance and is based on interactions using live audio/video between a counselor and a student. The premise of the program is that consulting with a psychiatrist in real time improves access to care, offers timely access to locally unavailable services, reduces or eliminates the burden/cost of transportation, and addresses workforce shortages. The program is designed to increase access, convenience, and reduce the cost of care. The program involves a multidisciplinary team that can be available in multiple settings and collaborate both online and in person.

teens and smartphones, approximately 67 percent of teens own a smartphone and spend more than four hours per day using it, making delivery of services via videoconferencing a logical fit. School and home telemental health also

helps reduce the stigma associated with mental health treatment. Additionally, telehealth provides more flexibility to schedule services, so students do not need to miss school to attend their therapy sessions and do not need to fear being seen by others in a provider’s waiting room.<sup>22</sup>

Research has also reported that telemental health may result in reduced length of hospitalization, better medication adherence, and symptom reduction of disorders.<sup>23</sup> Other studies have shown that telemental health may actually be better for some patients, such as those with autism-spectrum disorders, than in-person care. Attention deficit hyperactivity disorder (ADHD) treatment by telemental health has also shown high patient satisfaction in a variety of settings. A broad range of studies are concluding that children and adolescents find telemental health to be helpful, giving them a sense of personal choice during the consultation, and they generally like the technology.



## Children's Health in a Digital World: Opportunities and Challenges in Pediatric Telehealth (California)

In February 2018, The Children's Partnership was joined by the Children's Specialty Care Coalition, the California Children's Hospital Association, Family Voices of California, and the American Academy of Pediatrics-CA, to co-sponsor a policy briefing to educate California legislators, staff, and other policymakers about the importance of telehealth in delivering, and improving access to, specialty care for children and adolescents. The briefing highlighted the importance of telehealth for children with special health care needs or chronic conditions; children living in both rural and urban areas of the state; and care delivered in clinical and non-clinical settings, such as the patient's home and school. The briefing kicked off with a seven-minute educational video featuring

seven innovative telehealth programs across the state.<sup>26</sup> From hospitals and clinics in San Diego, Orange County, Los Angeles, Palo Alto, San Francisco, and Santa Rosa, the physicians interviewed described why and how their telehealth programs began, how they evolved, and how telehealth has made a difference in improving care for their pediatric patients. Complementing the providers' perspectives panel, a second panel centered on current telehealth payment methodologies and policies. The panel explored some of the challenges California must overcome in order to build an effective telehealth system that addresses the needs of California's children. To further explore telehealth policies in California, Cynthia Smiley, Chief of the Benefits Division at the California Department of Health Care Services (DHCS), presented on the department's oversight of telehealth policy, as well as key considerations as DHCS develops its 2018 update on telehealth coverage and payment rules under both Medi-Cal and the California Children's Services (CCS) and Genetically Handicapped Persons Program (GHPP).

## Telehealth in Special Needs School: Morning Star Catholic School (Orlando, Florida)

Nemours Children's Health System worked with the Morning Star Catholic School in Orlando, Florida, to serve patients with special needs and medical complexity.<sup>27</sup> The school nurse shared that student feelings of comfort and safety are key components of quality care, particularly for the school's many non-verbal students. With a school-based telehealth program, students are able to remain in a familiar environment with a familiar provider, a situation which decreases any fear or anxiety that might arise in addition to agitation due to illness. Further, the nurse reports a seamless workflow that supports her practice and includes parents virtually, as well as increased efficiency and effectiveness of the care provided at the school.

In one case at the special needs school, the school nurse noticed a rash on two patients that she could not identify. Using a Florida-based, on-demand telehealth service, the nurse consulted a physician who diagnosed the rash as scabies and prescribed medication, which was delivered by a nearby pharmacy. On-site treatment at the school began immediately.

Within the same business day, the school initiated a decontamination and cleaning plan and issued a letter to parents, providing information to further educate them on signs, symptoms, and treatment. The situation was contained, preventing an outbreak and subsequent temporary closure, which would have resulted in missed school days and missed work days for parents.

In another case, the mother of a medically complex child shared that after a significant health event at the school, which was 45 minutes from her office, she chose to work out of her car in the school parking lot for fear of not being able to reach her child in the event of another health event. Initially skeptical of the new telehealth program, after experiencing a multi-way telehealth visit with her child, the school nurse, and the telehealth provider, she became confident in the ability of her child's in-school care team, in partnership with the Florida program, to manage her child's health. She returned to work and reports feeling reduced anxiety and fewer missed work days. She also expressed, in answer to a question from an attendee, that the promptness and convenience of care in a time of need was more important to her than waiting to see her child's primary care doctor. A record of the visit was, of course, shared with the family and primary care doctor.

## Children with Special Health Care Needs

Telehealth has proven to be effective in delivering the types of specialized care and care coordination needed by children with special health care needs (CSHCN) in more accessible ways. Telehealth can be used to provide quality care in areas such as behavioral health, disease management, and care coordination. CSHCN often have or are at risk for chronic physical, developmental, behavioral, or emotional conditions, and they often require multiple providers and specialists, highly coordinated care, and related services on an ongoing basis from a multidisciplinary set of providers. Additionally, because children with complex and multiple health care needs are often served by many types of providers, providing care where the children are, including in schools, enhances opportunities for care coordination to support CSHCN and their families.<sup>25</sup>

## Children with Chronic Conditions

Children with chronic diseases who require routine monitoring and maintenance are often high-need, high-cost patients who can benefit from telehealth. Across the United States, school-based telehealth programs have shown strong associations between providing telehealth services and increased access to chronic care among children.<sup>28</sup> A recent study conducted in New York, using telehealth in a diabetes monitoring program, found that students who were monitored via telehealth were more likely to have lower hemoglobin A1C values, fewer hospitalizations, and fewer emergency department visits relative to students who were not monitored via telehealth.<sup>29</sup>

Telehealth is also emerging as a powerful tool to improve school

## Nemours: Asthma App

Nemours Children's Health System has developed a mobile app for chronic disease management, starting with solutions for asthma and high-risk cardiac diseases. The app leverages its 24/7 on-demand telehealth service as well as other digital health services (e.g., patient portal, patient education) and will be further developed to become a comprehensive platform, which will include tools for wellness as well as chronic and acute condition management.



Starting with chronic conditions, the goal of the application is twofold:

- 1) Provide tools co-designed by Nemours families and clinicians that will lead to better control of childhood chronic diseases, including telehealth access for urgent needs.
- 2) Provide clinicians a view into how their patients experience their condition between clinic visits.

Building on the second goal of providing clinicians with information about their patients, remote patient monitoring (RPM) is emerging as an important tool for chronic disease management. The idea is to capture information between clinical visits and feed that information into the clinic via the EHR in real-time. This additional data helps to inform the care plan for that patient.

While Nemours' app is currently a consumer-focused tool for use at home (via a mobile device), as telehealth adoption expands into schools and child care settings, there is opportunity to bring chronic disease management tools into these settings as well.

performance and attendance and provide convenient options for working families, particularly in the case of chronic conditions. For example, in North Carolina, the Center for Rural Health Innovation's telehealth program partnered with Mission Children's Hospital in Asheville, working with the pediatric pulmonologist and asthma educator to implement a comprehensive asthma management program focused on education and the treatment of acute asthma events at school. It provides information on when a nurse can engage the telehealth providers or determine if the child needs to go to the ED.<sup>30</sup>

## ▶ Child Care Centers

Introducing access to telehealth services in child care settings, including Head Start programs, provides an opportunity to expand access to primary and specialty care for very young children and to diagnose and treat health care issues, without requiring parents to take time off from work. Expanded access to primary and specialty health care via telehealth may also improve identification of new or recurring developmental, medical, oral, or mental health concerns among this group of children.

Compared to school-based telehealth programs, telehealth in child care

settings is in the nascent stages without many examples from which to draw. While most examples and research currently come from school-based programs, many lessons learned and best practices from these models could apply to child care programs as well.

In the preeminent child care example out of Rochester, New York (detailed in box below), researchers posited that the value of telehealth (for appropriate encounter types) could be measured by timeliness of care, cost of care, and cost-effectiveness. In their study, conducted in urban child care programs, telehealth

care was compared to usual care. Findings include the following:

- ▶ **Timeliness of care.** The telehealth model provided better, more timely care. Comparing telehealth care to usual care showed the following:
  - Telehealth care allowed the child to be seen immediately, be given first dose of pain medication immediately, and first antibiotic 1-2 hours later.
  - Usual care typically means the child is seen in 4 hours or more,

with the first dose of medication given 6 hours later.

- Results show telehealth care completed in 1-2 hours; usual care completed in 4-6 hours.
- ▶ **Cost of care.** Overall, cost of telehealth care was less. Comparing telehealth care to usual care showed the following:
  - Costs associated with telehealth care include equipment and connectivity costs, personnel costs, transportation costs, missed

## Health-E-Access Telemedicine Network (Rochester, New York)

The Health-e-Access (HeA) telemedicine network in Rochester, New York, begun by Dr. Kenneth McConnochie at the University of Rochester and supported at different stages by the New York State Health Department, the New York Health Foundation, and the national Agency for Healthcare Research and Quality (AHRQ), has conducted numerous studies over the past decade measuring the impacts of its inner-city child care telehealth program. The Health-e-Access program is a secure, web-based, community-wide, network approach to delivering care within the primary care medical home to families in Rochester, New York, a mid-sized urban area characterized by racial, socio-economic, and health disparities. The program began in 2001 in three child care centers. Dr. McConnochie shared, “Not long ago, hardly a day would go by in [our] pediatric primary care practice when we weren’t asked to do an office visit to certify that a child, who was obviously well, was fit to return to daycare. Sometimes the child had been well for several days already—it just took that long for the [parent] to take off from work to bring the child in for that ‘certification.’ So, the child care setting was low hanging fruit.” What the studies on child-care-based telehealth found was a net impact of 63 percent reduction in absences from child care due to illness.<sup>31</sup> Another finding was that providers were able to diagnose health problems as accurately via telehealth visits as they were in person. Further, 97 percent of visits were complete via telehealth; only 3 percent were referred to higher level of care. 94 percent of the children would otherwise have gone to an ED, an urgent care facility, or a pediatric office.

Finally, 93 percent of the time, the telehealth visit allowed the parent to stay at work or school with an estimated time savings of 4.5 hours per visit.

Operationally, a telemedicine assistant captures images or video of the child, for example capturing lung sounds with an electronic stethoscope, and also provides a history of the health condition based on information obtained from the child’s parent or child care center staff. Digital files are stored in an electronic record on a central server and can be downloaded by the distant site provider, who then interacts with the child care provider, the child, and the child’s parent via a live, multi-way videoconference. Dr. McConnochie shared, “I don’t feel like I’ve done my job as a provider until I have at least spoken to the parent by phone to elicit more history and discuss my recommendations. Ideally, the real-time interaction involves a multi-way videoconference, often with child, parent, and provider all at different sites. With the secure videoconference applications now available, there are no technical barriers to making this happen. We have had good experience with a free, secure videoconference app (which enables multi-way interactions) called Zoom.”

Altogether, the program now has 70 different access sites, including all Rochester city schools. Following success in child care and schools, HeA started conducting visits in a center for children with special needs and then in after-hours neighborhood telehealth access sites. In terms of reduction in ED visits among children in regular city elementary schools and child care, the result was at least 22 percent fewer ED visits. Among children with special health care needs at a child development center, the result was at least 50 percent fewer visits.<sup>32</sup>



work costs, telehealth visit costs (\$80), incremental costs for exam space, medication costs (equal to cost of usual care), and provider costs (equal to or less than cost of usual care).

- Costs associated with usual care (direct and indirect) include exam space, personnel costs, missed work time for parent, transportation/ambulance costs, parking costs, ED costs (avg. \$600), medication costs, and provider cost.
  - Results show fewer direct and indirect costs associated with telehealth care.
- ▶ **Cost-effectiveness.** Given in-person equivalence, convenience and timeliness of care, direct cost of care (transportation, space, provider, and visit costs), and indirect costs (missed work, missed school, timeliness of care), telehealth delivers better value to patients and communities.
- Finally, as might be expected, unique challenges face child-care-based telehealth programs, as child care centers typically do not furnish or

provide direct access to health care services and may initially be ill-equipped to host telehealth visits. Planning is especially key in child care centers with special consideration given to special needs (e.g., private space to conduct encounters), identification and training of telehealth presenters, rules and regulations regarding medication provision, and policies governing mandatory release of sick children.

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## Getting Started— An Overview

The following are issues to consider when getting started and exploring expansion of telehealth programs in schools and child care settings.

When considering a new telehealth program, it is important to understand that there are likely many families, communities, case managers, practitioners and insurers who may not be aware of the value of telehealth and

may have misperceptions about what it means for children. Some positive key messages that can help begin the dialogue include the following:

- ▶ Telehealth is not just about getting care to rural communities; it can help to address many other barriers to care in both urban and rural areas. In addition, many organizations and agencies have the shared goal of serving children, and telehealth is one potential solution that all organizations can support.
- ▶ The long-term benefits of telehealth may outweigh the short-term investment.
- ▶ While telehealth is a valuable tool to improve access to care for children, it is not a replacement for traditional care and should be used to help maintain ongoing relationships with children’s existing providers.

A number of school telehealth resources are available through the Telehealth Resource Centers (TRCs) program.<sup>33</sup> TRCs are designed to “provide assistance, education and information to organizations and individuals who are actively providing or interested in providing health care at a distance.” Supported by the U.S. Department of Health and Human Services (HHS), and the U.S. Health Resources and Services Administration (HRSA) Office for Advancement of Telehealth, their mission is to “assist in expanding the availability of health care to underserved populations.” The assistance provided is generally free of charge.

The following sections provide guidance on getting started on establishing a telehealth program with information on specific sources and experiences. In general, it is important to consider the following best practices when exploring a new telehealth program in schools or child care settings:

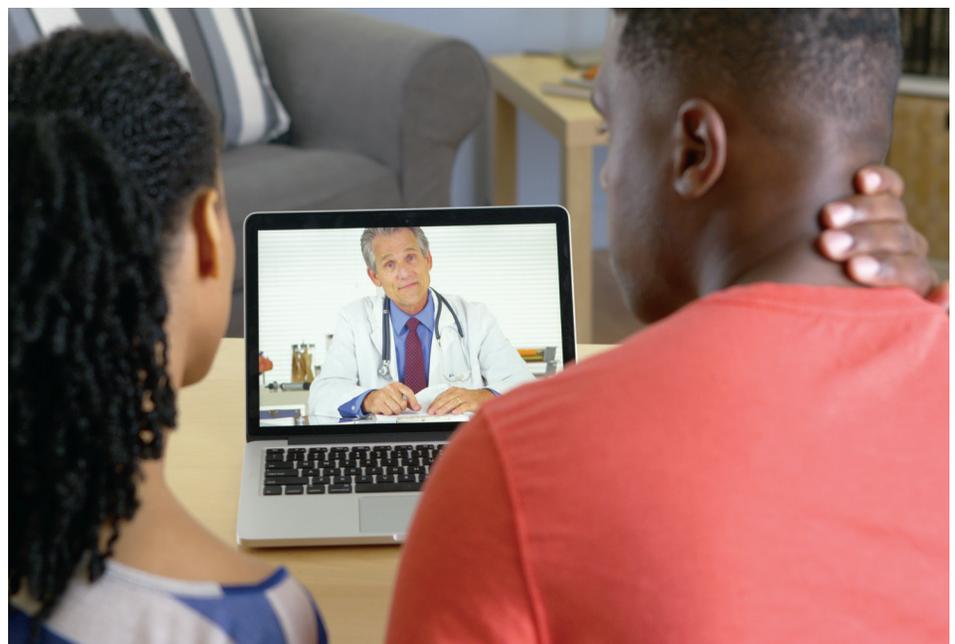
- ▶ An exploratory phase is an essential part of planning and should **include conversations with all stakeholder groups**, including community physicians, school nurses, school boards and administrators, educators, payers, parents, child care providers, child care regulating bodies (e.g., Head Start, departments of health, etc.), and local pharmacies.
- ▶ **Do not reinvent the wheel.** Many existing programs have materials that can be replicated and modified to meet a new program's unique needs. Such materials include patient/parent packets for program enrollment, model contracts, consent forms, existing best practices, and recommended measures.
- ▶ **Schools and child care sites have unique challenges** that differ from each other as well as from other non-clinical sites. Familiarity with Family Educational Rights and Privacy Act (FERPA) regulations related to student data, Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations related to patient health information, child care regulations applicable to health (e.g., medication administration, length of illness, etc.), and the role of parochial governing bodies (e.g., parent-teacher associations, school board) can help avoid stumbling blocks.
- ▶ **People will drive the migration to telehealth if they have a good experience.** Champions cannot be undervalued, and a great way to develop champions is to give them first-hand experience using the service in a time of need. Parents, teachers, and school nurses are the front line, and developing these champions is a first step to success.
- ▶ **Prospective programs should explore and cater to community needs—** start small with pilot programs and

grow based on lessons learned and early successes. Eventually, programs should endeavor to take a holistic approach, yet they must recognize that not all services are appropriate for school- or child-care-based telehealth programs.

- ▶ **Connection to the patient-centered medical home** should be a central goal of the program.
- ▶ **Sustainability planning must take place early on**, even if start-up costs are covered by grant funds. Elements of this planning include consideration of equipment costs, model-type (primary care vs. urgent care, or a hybrid model; roving telehealth cart in a geography versus on-site equipment at each location), and reimbursement sources and rates.
- ▶ **Full knowledge of which services and which provider types are covered** by both commercial and public payers is essential, as well as whether schools and/or child care sites are allowable originating sites in your state(s).
- ▶ **Other regulatory considerations must be accounted for**, including necessary credentialing and licensure

of all providers, presenters, and/or health aids in all jurisdictions (i.e., across state lines). Un-credentialed or unlicensed individuals cannot bill for services.

- ▶ **Assess the equipment and IT needs** for your program, how those items will be procured and delivered, and solicit continuous feedback on their effectiveness and ease of use.
- ▶ Starting early on, **training and technical assistance must be readily available** to assist with all technologies and devices deployed for use on-site at a school or child care center. This includes IT connectivity support, EHR and telehealth platform training, workflow training, and a continuous feedback loop regarding the efficacy and practicality of connected devices.
- ▶ **Provider training** is vitally important to success. This training includes equipment training, how to present a patient via telehealth, workflow training, and plenty of mock visits. Other considerations include best practices on attire, background, and location to ensure the clearest visual information is communicated.



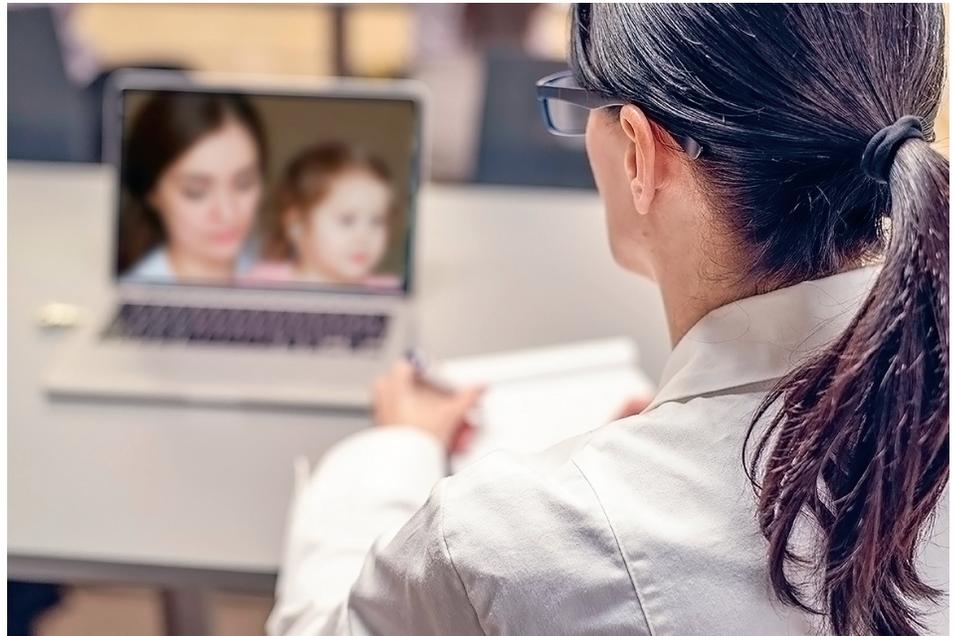
# Section II: How-To Guide

Below, we attempt to provide a stepwise approach to establishing a school- or child-care-based telehealth program, delivering as much practical knowledge as possible in a concise guide that focuses on key steps and existing resources. While a stepwise approach may be best, it is important to recognize many steps may take place concurrently, and there may not be a discrete transition from one step to the next.

## Identify Partners, Create Stakeholder Buy-in, Develop Champions and Demonstrate Value Through Pilot Programs

### Identify Partners

Successful school-based telehealth programs engage the right stakeholders at the right time, ranging from school administrators, to parents and teachers, to a broad array of providers and payers. These stakeholders may be at the state, local, or school level. It may



be helpful to start with local champions who recognize the value of telehealth and use these leaders to engage other key stakeholders.

The following groups of stakeholders are critical partners to establish and successfully maintain a school- or child-care-based telehealth program:

- ▶ Parents
- ▶ School district administrators
- ▶ School nurses
- ▶ State nurses associations
- ▶ Teachers
- ▶ Technology platform providers
- ▶ Community dentists
- ▶ Community physicians
- ▶ Community health centers (Federally Qualified Health Centers, or FQHCs, rural health clinics)
- ▶ Hospitals, including academic medical centers and teaching hospitals
- ▶ Local pharmacies
- ▶ Child care center administrators
- ▶ Payers
- ▶ Regulatory bodies (Head Start, counties)

Communicating the advantages of creating a school or child care telehealth program will vary from stakeholder group to stakeholder group. For instance, in Rochester, New York,

the HeA model showed that parents embraced new health care delivery models only when they understood the advantages compared with the traditional delivery system—office-based, urgent care, or emergency department. Payers, providers, and the health care system in the Rochester area needed to be reassured that the HeA program would not hurt them financially.

The importance of licensed school nurses and school health attendants (non-licensed school staff designated to triage minor ailments) cannot be overstated. It is important that these key stakeholders are engaged from the very beginning to share scope of practice; added workload; resource, time and education limitations; and other key factors and concerns. Licensed school nurses are usually the direct providers of care in school settings and are often the clinicians presenting the patients to remote providers during telehealth visits at schools—the originating site for the visit. School nurses are also often the sole providers for several schools within a school district, and telehealth may seem like an added workload rather than a way to increase access to care for children at multiple schools. Therefore, a pilot is useful to help develop the program that best fits each school's needs, and the school nurses are a critical component of designing the pilot program.

Other partners needed for support, funding, and long-term sustainability of programs include broadband providers, federal agencies (e.g., Health Resources and Services Agency [HRSA], the Center for Medicare and Medicaid Services [CMS], the Administration for Children and Families [ACF]), state agencies (e.g., departments of health care services, public health, Medicaid, children, education), technology platform vendors, broadband providers, local and state grant

makers and foundations, researchers, legislative champions, and advocacy organizations.

### Create Stakeholder Buy-in

Once critical stakeholder partners have been identified, one of the most important steps toward successful implementation is creating both short-term and long-term buy-in. It is necessary to speak with stakeholders early on in the process and continue dialogue throughout the development of the program. Regular feedback on progress, obstacles, and successes are also important to communicate among stakeholders to help each stakeholder see the value in implementing and sustaining telehealth programs. For instance, teachers can learn about the impact on the health and attendance of their students, while health plans can determine that telehealth can reduce visits to more costly forms of care—urgent care and emergency departments—and can reduce hospital readmissions. It is also important to understand and communicate that some impacts of telehealth will be short term (e.g., attendance), while other outcomes may be longer term (e.g., health care cost impact).

When building relationships with new partners, particularly those not familiar with telehealth, information about the benefits of telehealth must be tailored to each audience. For example, educators may be most interested in school attendance and return-to-class rates, parents may be most interested in reduced need to take time off from work, and providers may be most interested in continuity of care. It is also important to identify shared goals and shared risks, such as the overall health and well-being of the community's children. Identifying shared goals and risks requires an understanding of shared language across the education and health care sectors. Working with stakeholders to understand their specific goals will



help promote the adoption of these new approaches to providing school- and child-care-based telehealth services.

It is also important to understand the existing infrastructure and what certain partners can bring to the table. Telehealth is not sustainable without additional investment in school and early child care settings. Child care providers and teachers have a number of other expectations already imposed upon them, so any new program must take that into consideration. While programs may begin as local pilots in one setting, it is important to determine the distribution of the new programs across child care and school settings to assure that all children within the community have the opportunity to benefit from innovation. A comprehensive needs assessment to determine the sites, conditions, providers, and locations of a new telehealth program may be a valuable first step to assure buy-in and sustainability once a program is fully implemented.

Successful programs state that, at first, it may be wise to partner with those who have already expressed interest in establishing a partnership. Using those early opportunities to establish pilots

and develop champions will aid in future partnerships and program development. Below are recommended steps for consideration when approaching partners:

#### ► School health providers

- Ask schools to bring all their existing health care providers to early meetings to educate and connect upfront.
- Talk with school nurses and/or a union of school nurses early on, even if you are not using them as presenters.<sup>34</sup>
- Speak to administrators, liaisons, and social workers.
- As part of the early discussions, consider the following:
  - Air any concerns very early on, long before developing specific materials such as contracts and consent forms.
  - Engage partners in design of workflow, contracts/agreements, and other components of a pilot program.

#### ► Medical providers and staff in the target community

- Have early discussions with private physicians in the community as well as labor unions, especially outside urban areas.
- Highlight win-wins, connection to primary care providers and the patient-centered medical home.
- Host a convening and/or focus group with all community health partners, which can provide a useful forum.

#### ► Community members

- Invite representatives from applicable stakeholder groups, such as community advisory boards or parent advisory boards (as is common in many school districts).
  - Consider surveying them on interest, needs, and logistics as

part of a larger needs assessment effort.

- One challenge is that parent-teacher associations (PTAs) sometimes have low response rates from parents. A workaround could be to bring sample technology to parent-teacher conferences and demonstrate on-site.
- Create buy-in from families.
    - Parents/caregivers are key to ensuring the success of a telehealth program, whether in a school setting or a child care center. Parents and caregivers must have a high level of comfort that the quality of their child's health care will not be compromised if conducted through telehealth services and that information on their child's physical and mental health will adhere to the strict HIPAA and FERPA guidelines around privacy of data.
- #### ► Additional decision makers
- State or county child care agencies, such as early learning coalitions, task forces, and elected officials; child care directors (councils if applicable—this varies by state);

relevant child care leaders (this also varies by state but may be found in one of the following agencies: department of education, child welfare, department of health)

- Similar to school leadership, engaging the child care community early on in the process will address aforementioned barriers.

### Develop Champions

Additionally, there are several factors to consider when engaging parents/caregivers who can serve as champions for a telehealth program in a school or child care setting. These include the following:

- Identify parents who may have experienced telehealth services first-hand or who have a passion for eliminating barriers to children's success in the child care or school setting.
- Education is an important first step in engaging parents. For many, the direct connection between health and learning may not be readily apparent. Inherently, we understand there is a connection between hunger and learning, but the provision of a variety of health care services, including oral



care and chronic disease management, may not be as easily understood. Informational material, available on the School Based Health Alliance website,<sup>35</sup> provides a summary of how health impacts learning as well as how the benefits of providing school-based health care services can help to decrease chronic absenteeism and create a positive school climate.

- ▶ The Medical University of South Carolina (MUSC) outlines in three easily digestible bullet points the value of telehealth to students and working parents. These points speak to parents from a health care standpoint but also from an economic one:
  - Fewer missed days of school for students and fewer missed days of work for parents;
  - Faster access to appointments and care; and
  - Increased access to care for rural children, decreased emergency department visits, decreased absenteeism, improved chronic disease management, and improved academic performance.<sup>36</sup>



- ▶ Articles and brief “Did You Know?” content on the connection between health and learning can be embedded into child care and school electronic and print newsletters, as well as on websites, Facebook posts, and other social media outlets. Generating awareness will often lead to parental advocacy.
- ▶ Parents can also reference their district’s or child care center’s health and wellness policies for support in engaging others to focus on children’s health and wellness.
- ▶ These steps will also empower parents to speak effectively to school or child care leadership, as well as to health care providers and other community-based care organizations.
- ▶ Additionally, having parents share first-hand their stories with other parents on the use of telehealth is a powerful tool for engagement.
- ▶ Highlight telehealth success stories and share widely.
- ▶ Parent surveys should be utilized to gauge interest and determine highest

## Pediatric Telemedicine Program at University of California, Davis

Dr. James Marcin, Professor and Chief of Pediatric Critical Care and Pulmonary Medicine and Director of the Pediatric Telemedicine program at University of California, Davis, explains the way that UC Davis has partnered with Federally Qualified Health Centers (FQHCs) to provide access to hospital-based specialty care services to the community via telehealth. In this case, a special work-around has been developed whereby the FQHC reimburses the hospital for the specialty care provided to the FQHC’s patients. Dr. Marcin first met with clinicians at his institution to discuss population needs. UC Davis then partnered with Shasta Community Health Center, an FQHC in rural Northern California. Other stakeholders involved in this partnership included the California Health Care Foundation, Care Innovations—a local regional center for medically delayed patients, a local HMO, other community

services, and contractual agreements with UC Davis and private practices. Leslie Warner, Telemedicine Manager, Shasta Community Health Center, explained that one of the most successful elements of this partnership was that the telehealth program was mutually beneficial; both institutions had shared a mission of providing health access to underserved patients. She also stated that UC Davis was a clear choice for partnership because it is the closest major hospital that provides great care, and it is where Shasta Community Clinic would send patients otherwise. Shasta Community Clinic received a prospective payment system (PPS) rate for telehealth visits, which is the same reimbursement for in-person care. Their goal is to improve quality with telehealth and show payers that Shasta is reducing costs through reduced visits to the emergency department.

priority needs for services. Surveys should gauge parent/caregiver questions and concerns so effective communication can be crafted to address them.

## Demonstrate Value Through Pilot Programs

- ▶ Pilot programs can be a powerful tool for demonstrating the value of a school- or child-care-based telehealth program, as they allow users the direct experience of connecting with a health care provider via technology.
- ▶ In addition to focusing on the user (child) experience, a pilot program should seek to address and refine the following:

- Ease with which a parent(s) or caregiver(s) was able to provide consent, enroll his or her child, and address any concerns with a primary care provider (if the child has one);
- The ability to schedule visits with the parent/caregiver present;
- A space in which the child feels safe and comfortable with the provider;
- Technology issues, including ensuring sufficient bandwidth, for a seamless online visit experience;
- Understanding of the diagnosis (if one is made) and appropriate measures of following up, including having correct

pharmacy information on hand; and, finally,

- Addressing any issues with the diagnostic tools so that parents are clearly able to see, hear, and understand what the provider is communicating during the session.
- ▶ Parents and caregivers should be provided a mechanism for routine feedback during the pilot, such as online surveys.
- ▶ Successful pilot programs should not only be shared widely within the school or child care setting but also with the community at large as a best practice.

## Sacramento City Unified School District

Sacramento City Unified School District (SCUSD) is a good example of the challenges involved in implementing a school-based telehealth program. During the 2016-2017 school year, SCUSD piloted a telehealth program, formerly called HIPPO MD (now called Hazel Health). However, the program was discontinued for the 2017-2018 school year. Initially, the program was piloted at a K-8 school in the district with a school nurse using the technology. While the SCUSD Student Support & Health Services office initially supported the effort, the HIPPO MD company employed non-medical staff to utilize the technology to present students for the telehealth visits in the school nurse's absence, for instance when the school nurse was pulled away to complete other necessary health services or assessments.

In the spring of 2017, the pilot program expanded to five other elementary schools without any involvement of the health services office and used a school social worker; interns from California State University, Sacramento; and clerical staff to serve as the "clinical presenter" with the students. Presenting included taking vital signs and being the remote doctor's eyes and ears (palpating body parts, observing ears, etc.). Utilization of the HIPPO MD technology also included providing over-the-counter medication through the doctor's order on the app. It became clear that social work training (even medical social work) does not encompass these types of medical duties or expertise. Further, the HIPPO MD program was not linked

to any local medical providers or clinics. The school nurses were very interested in utilizing telehealth within schools, particularly to reduce absenteeism, but they wanted to ensure that the "clinical presenter" had some type of medical license or certification and that the program maintained a connection to the student's medical home for continuity of care and recommended pediatric care practices.

Ultimately, while the Sacramento City Teachers Association had some concerns about job encroachment, the school nurses' primary concerns were about the quality of care being provided through the HIPPO MD program, continuity of care, and the lack of transparency and engagement within the school district and with the local community health providers.

Currently, SCUSD is moving forward with a health needs assessment to determine where the greatest health needs and health disparities exist. Following this evaluation, SCUSD will be inviting its community health partners to submit requests for proposals to partner with the district in meeting those needs. They hope to share the request for proposals in late spring 2018. Proposals will be considered for all types of delivery models, including brick and mortar, mobile clinic, and/or telehealth. The SCUSD case is an important example of the challenges that can arise if crucial stakeholder buy-in is not obtained and maintained.

# Assess Needs and Develop Scope

## Assess Needs

When establishing a program, it is important to first gather data and determine areas of greatest need for children's health in each school or community. Such data can be captured in the following ways:

- ▶ Needs assessments
- ▶ Youth Risk Behavior Surveillance Survey (YRBSS) data from the Centers for Disease Control and Prevention (CDC)
- ▶ Hospital ED data, including zip code clusters
- ▶ State department of education dashboards
- ▶ Head Start program data
- ▶ District and school nurses, social workers, and other mental/behavioral health providers on campus
- ▶ School administrators
- ▶ Healthy school teams, if present
- ▶ Parent and teacher surveys
- ▶ Partnerships between providers and payers, if both parties agree to share data

However, gaining access to some of these data sources can be challenging, including convincing partners to share data by explaining the program and developing shared goals. In other cases, data sources are simply too sparse, such as in child care. Using existing and available data to generalize to the larger population can help in the beginning, but it is critical to build in data development and collection processes for future assessment and evaluation purposes specific to each telehealth program.

## Develop Scope

Once areas of greatest need are identified, the next phase is to develop a scope that specifies how telehealth can address each of those needs. It may be the case that your program cannot meet all the identified needs, so developing a defined scope can help prioritize and/or create a phased-in approach to address more needs over time.

During this phase, consider revisiting steps outlined in the "Create Stakeholder Buy-in" section above. Working with partners to build program scope is key to designing a program that works for all involved. This approach can also be helpful in identifying gaps and avoiding pitfalls before program launch.

## Obtaining Equipment, Determining Workflow, and Sharing Information

Once the program has been established in terms of scope and partnerships with stakeholders, the plan needs to

be operationalized. There are many considerations, such as equipment, funding and procurement, developing workflow, and choosing a presenter.

## Assess Equipment Needs

Central to the success of any school- or child-care-based telehealth program is the quality and efficacy of equipment that enables a high-quality telehealth visit. According to the American Academy of Pediatrics (AAP), equipment needs may range from videoconferencing units or carts to videoconference-enabling software for tablets or mobile devices. Equipment should provide high-quality audiovisual communication supported by a reliable internet connection. Additionally, equipment should have the ability to connect to peripheral devices—such as an otoscope, thermometer, and stethoscope—and have fully interoperable software between the telehealth cart or application and peripheral devices. The AAP<sup>37</sup> offers the following recommendations:

- ▶ "The recommended criteria for current technologies are H.323 compliance, live video resolution of 4 × Common Intermediate Format (4CIF) (704 × 480) or higher, and an ability to connect at a minimum of 384 kilobits per second running 4CIF at 30 frames per second.<sup>87</sup> In addition, the technology should support H.264 video compression



standard or better, H.261 video compression standard compatibility, and G.711 audio compression standard or better to ensure high-quality audio and video for the telemedicine interaction.”

- ▶ “The organization should be able to provide point-to-point connectivity from within or outside the health care facility. Most telemedicine interactions now use internet protocol using a high-speed internet connection. On occasion, telemedicine interactions use an integrated services digital network connection when sites lack the infrastructure to support high-speed internet connections. For a live interactive telemedicine link, a commonly suggested minimum speed is a 384-kilobits-per-second bidirectional connection between the sites.”

## Equipment Funding and Procurement

Programs across the country have taken several unique approaches to equipment funding and procurement for school-based telehealth. Child-care-based telehealth is much more nascent but may benefit from similar approaches.

These examples span the gamut of funding and procurement strategies:

- ▶ Howard County, Maryland, partnered with Howard County General—the hospital made its ER pediatricians available.
  - The county itself paid the \$27,000 for equipment needed at each of the 5 schools.<sup>38</sup>
- ▶ The Center for Rural Health Innovation established a Health-e-Schools program, which operates school-based telehealth programs in rural North Carolina.
  - They purchased the equipment for the schools with government and foundation grants.<sup>39</sup>

- Their first purchases were from a videoconferencing firm that didn’t fully understand the needs of telehealth equipment. They made sure to get a “specifically designed telehealth cart” the next time around.<sup>40</sup>

- ▶ Los Angeles Unified School District (LAUSD) added carts to 5 schools.
  - They were fully subsidized by LifeMD, their Florida-based telemedicine provider.<sup>41</sup>
  - LAUSD notes that “With grants, as well as state and federal programs aimed at improving health care for students with chronic medical conditions (e.g., asthma, diabetes, and obesity), a school can potentially fund the startup fees at no additional cost to the district.”<sup>42</sup>
- ▶ Avera eCARE School Health provides telehealth services to schools via their hub in Sioux Falls, South Dakota.<sup>43</sup>
  - They received a Health Resources and Services Administration (HRSA) grant in 2016 through the Telehealth Network Grant Program<sup>44</sup> designed to provide services in designated rural areas only.
  - According to the funding opportunity announcement, grant funds were to be used for salaries, equipment, and operating costs.<sup>45</sup>
- ▶ As of the writing of this report, HRSA has a funding opportunity open to award up to \$100,000 to school-based health centers to purchase telehealth equipment.<sup>46</sup>
- ▶ The Georgia Partnership for Telehealth awarded \$30,000 to 8 Georgia schools in 2015 which could be used for purchasing equipment.<sup>47</sup>

## Broadband Access

Telehealth is dependent on high-quality connectivity and appropriate equipment at both the provider and school or

child care site. While connectivity has improved and costs of equipment continue to decline, determining how to equip your program is a key to success for both providers and the children being served. Strategic steps include the following:

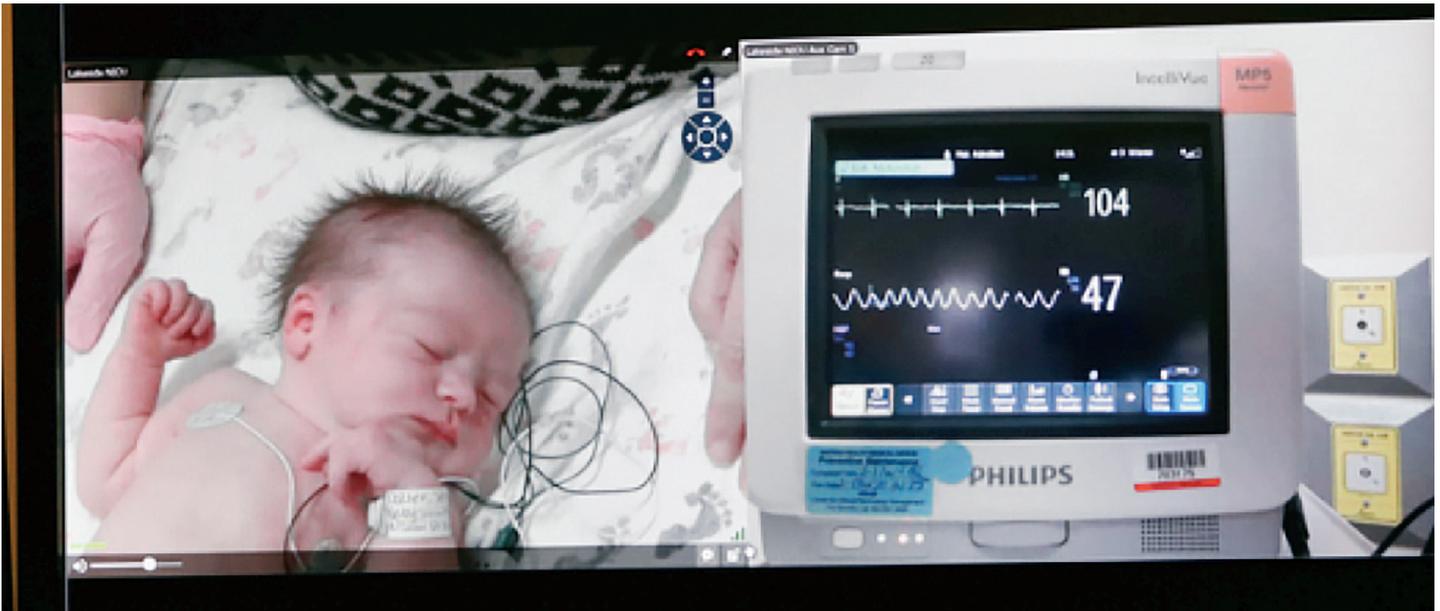
1. Ensuring access to high-speed internet (especially in rural areas)
2. Building an interface/workflow that connects to the child’s existing medical record
3. Developing controls to manage FERPA/HIPAA concerns

Broadband access continues to challenge widespread adoption of telehealth by health care providers, but it also presents additional challenges for schools and child care centers. Evidence shows that most unmet needs are in rural areas, primarily due to the high cost of broadband infrastructure development and low populations in these areas.<sup>48</sup> Below are examples of specific challenges:

- ▶ Inadequate bandwidth, both within and between school district facilities
- ▶ Wired and wireless delivery within school facilities, especially older buildings
- ▶ Inadequate technical support at the school district level and lack of experience to formulate a sound technology plan
- ▶ Firewalls at the school site, which can sometimes be district-wide (although some programs have had success working directly with spectrum providers to work through firewall issues)

## Workflow and Training

Determining how the program will run on a day-to-day basis, known as the workflow, is a key step in designing a telehealth program. This involves careful planning about



where to place equipment, who will present a child during a telehealth visit, and the provision of training and technical assistance. The location of on-site equipment is an important consideration in all sites, but it is particularly so for child care settings. Child care providers may not have a designated room in their space, so you will want to negotiate a private room or space where equipment can be placed and telehealth visits can be conducted. In schools, ensuring that equipment placement is agreeable with the school nurse or other on-site presenters is key.

It is also important to determine who will present a child for telehealth visits, whether in school or child care. Successful programs note that negotiating presenters can be challenging and require buy-in from key stakeholders such as school nurses. Additional recommendations include the following:

- ▶ Ensure that the presenters' scope of practice is appropriate/adequate in your jurisdiction. Every state has different rules and regulations regarding who may present a patient.
  - Successful programs have typically chosen school nurses and/or health aids.

- It is also wise to consider which presenters private payers will accept for billing.

- ▶ Presenters should sign a business associate agreement as well as HIPAA and other patient privacy agreements, if applicable.
- ▶ Presenters should receive thorough training from the telehealth provider organization and have available technical assistance in the event of equipment, connectivity, or other failure. (There are telehealth presenter certifications, but successful programs have not yet found them effective.)

It is imperative that clinicians have full confidence in the presenter for the program to work. The level of confidence may vary based on condition/encounter (e.g., low-acuity encounters may not require a nurse presenter, whereas a high-acuity encounter might.)

### Sharing information

The key to a successful telehealth program is the need to share information between the provider and the school or child care center to assure continuity of care. At the same time, sharing

information, or interoperability, brings its own challenges of linking systems and protecting patient privacy and security. These key issues should be addressed before the program gets started.

The AAP emphasizes that the quality of a telehealth system depends on the connections established between the sites. It notes that participating organizations must have adequate bandwidth to support the needs of the telehealth program goals.<sup>49</sup> In addition, the Office of the National Coordinator for Health IT (ONC) advises that, when planning a telehealth program, it is important to take steps to ensure integration of telehealth into other health care systems that serve the children in school and child care centers. A key first step is to engage representatives from other stakeholder groups such as health centers, local pediatricians, and children's hospitals to design a telehealth system that is interoperable with their health care records. ONC also notes that while telehealth represents an innovative way of expanding access to care, consumer-centered telehealth must ensure the privacy and security of all patient data.<sup>50</sup>

# Privacy, Contracts, and Administrative Processes

## Privacy and Security

Protecting the privacy and security of children's health information is critical when developing a school or child care telehealth program. Because these health care services are delivered in a school or child care setting, it is important to understand how the Family Educational Rights and Privacy Act (FERPA)<sup>51</sup> and Health Insurance Portability and Accountability Act of 1996 (HIPAA)<sup>52</sup> policies may apply to your program.

Telemedicine interactions must comply with HIPAA and other regulatory requirements. A major goal of the HIPAA Security Rule is to protect the privacy of individuals' health information while allowing covered entities to adopt new technologies to improve the quality and efficiency of patient care. The Security Rule is designed to be flexible so a covered entity can implement policies, procedures, and technologies that are appropriate for that entity's size, structure, and consumers' protected health information risk. Most telemedicine technologies create a point-to-point encryption between the devices involved in the interaction. Virtual private network tunnels are a common method used to facilitate the privacy of the internet connection used for the telemedicine interaction. Although the security of the

telemedicine interaction is determined by encryption and privacy of the internet connection, each covered entity should ensure the security of protected health information by developing appropriate safeguards related to data integrity, access, and security tracking and reporting, similar or in line with their face-to-face patient encounters.<sup>53</sup>

In November 2008, the US Departments of Health and Human Services and Education issued Joint Guidance on the Application of the FERPA and the HIPAA to Student Health Records.<sup>54</sup> The purpose of this guidance was to explain the relationship between FERPA and the HIPAA Privacy Rules and provide guidance to school administrators, health care professionals, and others as to how these two laws apply to student records.

## Overview of FERPA

FERPA is a federal law that protects the privacy of students' "education records" and applies to educational agencies and institutions that receive funds from the US Department of Education, including most public schools and school districts. An educational agency or institution subject to FERPA must not disclose education records of students, or personally identifiable information from education records, without a parent or eligible student's written consent.

The term "education records" includes records that are 1) directly related to a student, and 2) maintained by an educational agency or institution or by a party acting for the agency or institution. At the elementary or secondary level, a student's health records, including immunization records, maintained by an educational agency or institution subject to FERPA, as well as records maintained by a school nurse, are considered "education records" subject to FERPA. In addition, records that schools maintain on special education students, including records on services provided to students under the Individuals with Disabilities Education Act (IDEA), are "education records" under FERPA.

## Overview of HIPAA

HIPAA was enacted in 1996 to protect the privacy and security of individually identifiable health information. The US Department of Health and Human Services has issued a series of rules, including a privacy rule, to implement the law. Entities subject to the HIPAA rules, known as "covered entities," are health plans, health care clearinghouses, and health care providers that transmit health information in electronic form in connection with covered transactions. "Health care providers" include institutional providers of health or medical services, such as hospitals, as well as non-institutional providers, such as physicians, dentists, and other practitioners, along with any other person or organization that furnishes, bills, or is paid for health care in the normal course of business.

The HIPAA Privacy Rule requires covered entities to protect individuals' health records and other identifiable health information by using safeguards to protect privacy and establishing limits and conditions on the uses and disclosures that may be made of such information without patient consent. The rule also gives patients' rights over their health information, including rights to review and obtain a copy of their health records, as well as to request corrections.

## How FERPA and HIPAA Apply in School Settings

When a school provides health care to students, it is considered a “health care provider,” as defined by HIPAA. If a school also conducts covered transactions electronically in connection with that health care, it is then considered a covered entity under HIPAA. However, many schools, even those that are HIPAA-covered entities, are not required to comply with the HIPAA Privacy Rule because the only health records maintained by the school are “education records” or “treatment records” of eligible students under FERPA, both of which are excluded from coverage under the HIPAA Privacy Rule.

The National Assembly on School Based Health Care (NASBHC) offers a fact sheet to help schools address the relationship between HIPAA and FERPA for school-based health centers: “How Do HIPAA and FERPA Affect School Nurses’ Information?”<sup>55</sup>

It is also critical to develop consent forms for treatment, privacy, and security in collaboration with parent advisory groups, as well as other parent informational material. Below are considerations regarding the development of such materials.

- ▶ Consent forms should be provided in multiple languages consistent with primary languages spoken at the school, overall district, or child care setting. Ideally, these forms should be presented with easy-to-understand and concise brochures and other informational pieces to help educate families on their purpose. Developing a set of talking points for nurses, administrators, teachers, parents, and other advocates may also help to allay concerns over signing of a consent form.
- ▶ The Medical University of South Carolina (MUSC) has a robust school-based telehealth program.



Informational brochures for parents, consent forms, and enrollment forms can be found on its website.<sup>56</sup>

- ▶ Additionally, the AAP provides sample documents, including consent forms, in the Telehealth Support section of its website.<sup>57</sup> These consent forms are basic templates and are meant to be customized for different populations and settings.
- ▶ At the onset of the telehealth pilot program with Morning Star School,<sup>58</sup> Nemours Children’s Hospital developed a “parent packet” that included an informational letter, patient and family intake forms, a consent-to-treat-via-telemedicine document, a financial responsibility form, and a notice of privacy practices, among other items. Input from school administrators was sought throughout the process of creating the documents.
- ▶ State and/or local department of health and department of education agencies, or early learning coalitions, may also have consent forms that can be adapted to a local district, school, or child care center.

### Model Contracts

Foley and Lardner, LLP has developed a telehealth compliance checklist that may be useful as sites consider contracting for telehealth.

The list includes questions related to contracting with professionals, understanding coverage for telehealth by public and private payers, designing informed consent, credentialing, and privacy and security. This checklist may be valuable as sites explore telehealth implementation.<sup>59</sup>

In addition, the South Carolina Department of Education provides several examples of agreements, contracts, forms, and checklists that may be useful for school-based programs and potentially adaptable for child-care-based programs.<sup>60 61</sup>

### Administrative Processes for Licensing, Credentialing, and Liability

It is also critical to work with providers to assure proper licensing, credentialing, and protection from liability. The AAP published a technical report, “Telemedicine: Pediatric Applications,” that provides guidance on how telemedicine programs can mitigate their legal risk.<sup>62</sup> The AAP describes the following liability issues related to telemedicine:

- ▶ The physician-patient relationship
- ▶ Roles and communication responsibilities
- ▶ Preventing patient abandonment
- ▶ Technological failures

- ▶ Liability insurance for out-of-state telemedicine encounters
- ▶ Site of malpractice action (i.e., in the patient’s state of residence, the state where the physician is located, or the state where the physician has a telemedicine presence)
- ▶ Standard of care and patient expectations
- ▶ Informed consent specific to risks associated with the use of telemedicine, including involvement of nonmedical staff, recording of the interaction, and the vulnerability of the equipment to failure.<sup>63</sup>

## Develop Consent Forms for Children and Families

In order to begin providing care, the telehealth program must develop informed consent forms for families to allow their children to be seen via telehealth. There are model consent forms that may be helpful, but they should be modified to fit the needs of each jurisdiction. Successful programs recommend the following:

- ▶ For school-based programs, work with the state department of education and school district’s legal and risk management departments to develop a standard consent form that can be used across your school district. This eliminates the need for multiple forms for different sites.
  - This step can come earlier for organizations that have robust legal and administrative support, such as an academic medical center. For other organization types, such as independent nonprofits, this step might come later.
  - The South Carolina Department of Education offers a sample consent form as well as other important resources.<sup>64</sup>

# Exploring Payment Options

## Understanding Federal and State Reimbursement

A key to long-term sustainability of a successful school- or child-care-based telehealth program is reimbursement for services by public and/or private insurance. A significant portion of US children are covered under Medicaid, CHIP, or private insurance, although some children may be uninsured. While coverage rates vary by state, across the United States, 48.5 percent of young children are covered by Medicaid/CHIP.<sup>65</sup>

In general, coverage for telehealth services is determined by each state. In exploring the development of telehealth programs, it is important to first determine if these services will be covered under Medicaid, CHIP, and/or private insurance. This can be done by identifying each state’s current coverage and payment laws and regulations. It is also important to determine whether telehealth services will be covered in child care and/or school-based settings. If delivery of services via telehealth is not covered in a particular state, it may be necessary to explore new legislation or regulations that will allow coverage. The information below provides some general guidelines and specific examples of public and private insurance coverage.

## Medicaid

CMS allows states to reimburse for telehealth under Medicaid as long as the service meets federal requirements of “efficiency, economy, and quality of care.”<sup>66</sup> CMS also

notes that “Telemedicine is viewed as a cost-effective alternative to the more traditional face-to-face way of providing medical care (e.g., face-to-face consultations or examinations between provider and patient) that states can choose to cover under Medicaid.”<sup>67</sup> Beyond this broad requirement, states have developed their own laws and regulations regarding telehealth coverage and reimbursement, including whether to cover telehealth services, the types of telehealth services to cover, qualifying originating site locations, distant site providers, and payment rates for telehealth services.<sup>68</sup> Recently, CMS clarified that states are not required to file a State Plan Amendment (SPA) to define their telehealth policy as long as reimbursement for telehealth services is equivalent to reimbursement for face-to-face services/visits/consultations.

State Medicaid coverage for telehealth varies by state and continues to evolve. Forty-eight states and the District of Columbia currently cover some form of telehealth. Live videoconferencing is the most common telehealth modality, with all 48 states and the District of Columbia reimbursing for some form of live video (as of October 2017).

What varies greatly from state to state are the restrictions on the type of provider, facility, service, or geographic location that can be reimbursed for live video, as well as reimbursement levels. Twenty-one states reimburse for remote patient monitoring, but most limit coverage to home health agencies and patients with specific conditions, such as diabetes. Six states maintain policies for geographic restrictions, similar to the Medicare program. Twenty-three states limit the type of facility that can serve as an originating site.<sup>69</sup> Thirty-one states offer a transmission or facility fee to the originating site. State laws continue to evolve, so it is important to examine current policies as your program is being developed.<sup>70</sup>

## State Medicaid Telehealth Definition Examples

**Examples of Medicaid definitions in states include the following:**<sup>71</sup>

**Delaware:** Telemedicine is the use of telecommunication and information technologies to provide clinical health care at a distance. The Delaware Medical Assistance Program will reimburse for “telemedicine-delivered services.” The GT modifier (which indicates the service occurred via interactive audio and video telecommunication system) can be used for EPSDT through the School Based Health Services program.

**Florida:** Telehealth is defined as the mode of providing health care and public health services through synchronous and asynchronous information and communication technology by a Florida-licensed health care practitioner, within the scope of his or her practice, who is located at a site other than the site where a recipient (patient or licensed health care practitioner) is located.

**New York:** Telemedicine means the delivery of clinical health care services by means of real time, two-way electronic audiovisual communications which facilitate the assessment, diagnosis, consultation, treatment, education, care management, and self-management of a patient’s health care, while such patient is at the originating site and the health care provider is at a distant site.

**North Carolina:** Telemedicine is the use of two-way, real-time interactive audio and video between places of lesser and greater medical capability or expertise to provide and support health care, when distance separates participants who are in different geographical locations.

**Texas:** Telemedicine is “the use of health care information exchanged from one site to another via electronic communications for the health and education of the individual or provider, and for the purpose of improving patient care, treatment, and services.”

## State Medicaid School Telehealth Definition Examples

**Following are a limited number of state Medicaid telehealth definitions that specifically reference schools:**

**Delaware:** The GT modifier (which indicates the service occurred via interactive audio and video telecommunication system) can be used for Early and Periodic Screening, Diagnostic and Treatment Services through the School Based Health Services program.

**Georgia:** Eligible originating sites include School-based clinics.

**Michigan:** MI Medicaid will reimburse for speech language and audiology services provided through their school-based program. The patient site may be located within the school, at the patient’s home, or any other established site deemed appropriate by the provider.

**Mississippi:** Enrolled Medicaid providers are eligible to receive the originating site facility fee for telehealth services per transmission in School-based clinics.

**New Mexico:** School-based services provided via telemedicine are covered.

**New York:** New York Medicaid will reimburse for live video services for medically necessary services provided to patients in Non-FQHC School Based Health Centers (SBHCs).

**Ohio:** Ohio Medicaid will reimburse for live video for speech therapy services in the Medicaid School Program (MSP) when provided by speech-language pathologists.

**Oklahoma:** Eligible originating sites include Schools.

**Texas:** Services may take place in a school-based setting if:

- ▶ The physician is an authorized health care provider under Medicaid;
- ▶ The patient is a child who receives the service in a primary or secondary school-based setting;
- ▶ The parent or legal guardian of the patient provides consent before the service is provided; and
- ▶ A health professional is present with the patient during treatment.

**Virginia:** Speech therapy reimbursement for the speech-language pathologist at the remote location and a qualified school aide with the child during the tele-practice session. The GT modifier (which indicates the service occurred via interactive audio and video telecommunication system) can be used for Early and Periodic Screening, Diagnostic and Treatment Services through the School Based Health Services program.



## Private Insurance

In their January 2016 LegisBrief, the National Conference of State Legislatures (NCSL) reported that 32 states and the District of Columbia have telehealth private payer laws. While many states have adopted policies regulating private payers' coverage and reimbursement for telehealth services, state laws can vary significantly. Some states define specific criteria if payers choose to cover telehealth; some require coverage for certain telehealth services, certain populations, or all beneficiaries; and others require certain payment approaches for telehealth.<sup>72</sup> In addition, NCSL reports that 24 states allow some type of coverage for telehealth in their state employee plans. Currently, there is no national uniform legal approach to telehealth coverage and state variations limit uniform implementation and adoption of telehealth services.<sup>73</sup>

Thirty-two states and the District of Columbia have parity laws that cover private insurers and reimbursement for telehealth services. Twenty-three states and the District of Columbia have full parity, meaning, coverage and reimbursement for in-person and telehealth services is comparable. While many states mandate reimbursement for telehealth, not all require

reimbursement to be equivalent to or at the same rate as in-person services. Arizona is the only state that limits parity to geographic regions and specific services. Michigan, Oregon, and Vermont only authorize reimbursement for telehealth that uses interactive, audio-visual systems. Arkansas places limits on patient locations and provider types and requires an in-person visit to establish a patient-provider relationship. Nevada is the only state to apply telehealth parity to workers' compensation programs. A compendium of current state laws governing telehealth was published by the Center for Connected Health Policy in 2017.<sup>74</sup>

Some private insurers cover telehealth services for all or a defined segment of their members, regardless of parity laws, while some have implemented reimbursement limitations based on specific services or modalities. In addition, the number of self-insured, large employers that offer some telehealth services to their covered beneficiaries has increased dramatically. A survey of 133 large US employers found that the percentage of employers covering telehealth services increased from 7 percent in 2012 to 90 percent in 2017. Virtually every large employer surveyed plans to include some type of telehealth service coverage by 2020.<sup>75</sup>

## Measuring Success and Sustaining Programs

### Defining Measures

In addition to payment and stakeholder buy-in, the key to sustaining a telehealth program is measuring the outcome and "telling the story" of the program. This information must be designed to communicate with a broad range of stakeholders in both the education and health care sectors. While metrics may be different for schools and child care settings, measurement should be based on available data and the goals of the program as it is being designed and evolves. It is also critical that measures reflect the priorities of each of the stakeholders involved in the program and the interrelationship between telehealth and school performance. Stakeholders who will need to be included in the design and dissemination of measurement include teachers, administrators, payers, providers, state health and education officials, and families. It is important to reach consensus on measures in

advance of launching a telehealth program among all of the participating stakeholders, including health and education providers, as well as parents and policy officials.

It is also necessary to describe measures in ways that are easily understood by each stakeholder. One approach is to adapt key performance measures promoted by evidence-based organizations such as the School Based Health Alliance (SBHA)<sup>76</sup> or Head Start program requirements.<sup>77</sup> Another approach is to link measures to those that are already required by existing state and local education programs such as chronic absenteeism and early learning standards. It is also beneficial to partner with managed care organizations, FQHCs, and public and private payers to identify measures that can help identify improvements in quality and potential cost reductions associated with telehealth in schools and child care centers.

Other examples of school telehealth measures come from the University of Maryland telepsychiatry program<sup>78</sup> which includes productivity outcomes such as schools and students served,

number of sessions conducted in-person and via videoconference, session focus, parent/caregiver attitudes about telehealth, and satisfaction with services. In addition, the California School-Based Health Alliance<sup>79</sup> has explored measures related to impact on health care such as increased likelihood of yearly dental and medical check-ups among patients; impact on academic performance such as declines in absenteeism, dropout rates, and disciplinary problems; and impact on health care costs such as reduced inappropriate emergency department use.

Finally, the School Based Health Alliance (SBHA), in partnership with its state affiliates and experts from the school-based health care field, developed a set of core competencies that every school-based health center is expected to demonstrate to support student wellness and excellence in delivering care in a school setting.<sup>80</sup>

These core competencies include the following:

- ▶ Access—assures students’ access to health care and support services to help them thrive.

- ▶ Student-Focus—team and services are organized explicitly around relevant health issues that affect student well-being and academic success.
- ▶ School Integration—integrates into the education and environment to support the school’s mission of student success.
- ▶ Accountability—evaluates its performance against accepted standards of quality to achieve optimal outcomes for students.
- ▶ School Wellness—promotes a culture of health across the entire school community.
- ▶ Systems Coordination—coordinates across relevant systems of care that share in the well-being of its patients.
- ▶ Sustainability—employs sound management practices to ensure a sustainable business.

## Measuring Impact of Telehealth in Child Care Settings

While there are very limited measures available specific to measuring the impact of telehealth in child care centers, one potential resource is the Head Start Policy and Regulations.<sup>81</sup> These regulations require programs to help parents continue to follow recommended schedules of well-child and oral health care including appropriate strategies for program staff and parents to identify any new or recurring developmental, medical, oral, or mental health concerns. The program must also facilitate and monitor necessary oral health preventive care, treatment, and follow-up, including topical fluoride treatments. Finally, the program must facilitate further diagnostic testing, evaluation, treatment, and a follow-up plan, as appropriate, by a licensed or certified professional for each child with a health problem or developmental

## Cross-Sector Measures

Measures should focus on common childhood conditions such as asthma, diabetes, ADHD, childhood obesity, oral health, mental health, and dermatology. Some general categories of key measures are listed below.

### Key health measures

- ▶ Access to care
- ▶ Quality of care
- ▶ Reduction in ER visits, hospital readmissions, and office and urgent care visits
- ▶ Compliance

- ▶ Missed appointments
- ▶ Medication adherence

### Key education measures

- ▶ Absenteeism and chronic absenteeism (parent and child)
- ▶ Return-to-class rate
- ▶ Academic performance
- ▶ Parental involvement
- ▶ Behavior referrals

### Measures that may apply to multiple stakeholders include the following:

- ▶ Parent and teacher satisfaction
- ▶ Cost and savings

delay, such as elevated lead levels or abnormal hearing or vision results that may affect the child's development, learning, or behavior.

If a child does not have a source of ongoing care and health insurance coverage, the program must assist families in accessing these resources as quickly as possible. In addition, the program must determine whether or not a child is up to date with age-appropriate preventive and primary medical and oral health care or assist parents with making arrangements to bring the child up to date as quickly as possible. The program must also either obtain or perform evidence-based vision and hearing screenings and identify each child's nutritional health needs, including special dietary requirements and food allergies.

## Challenges to Adoption

While some programs are successfully delivering pediatric telehealth services in schools and child care centers, numerous barriers continue to limit widespread adoption of telehealth in these settings, including technological, legal, administrative, and licensing barriers.<sup>82</sup> For patients, barriers are often related to concerns over perceived threats to privacy and disruptive changes to existing relationships with providers.<sup>83</sup> For providers, barriers include coverage, liability/risk management, and licensing, but reimbursement tends to be the most common barrier to telehealth adoption. Additional barriers to telehealth implementation may be provider, particularly school nurse, acceptance of the program. Community physicians may also be concerned that they will lose their patients or that services will

not be coordinated with the child's medical home.<sup>84</sup>

System barriers may include issues around startup, maintenance, technical expertise, and equipment; internet speed and bandwidth capability; reimbursement; and buy-in from a broad range of stakeholders. Stakeholders may include parent-teacher associations, teachers, parents, students, school nurses, school social workers, school and child care administrators, staff, city councils, local health care providers, and health departments. Finally, the financial impact of a telehealth program must consider cost, return on investment, and sustainability.<sup>85</sup>

Following are other areas of concern:

### Licensure and Credentialing

- ▶ **Variations in physician licensure requirements.** Lack of portability of health professional licenses continues to be a significant barrier to telehealth adoption. The policies governing telehealth and physician licensure vary across the country and are generally regulated by individual state licensing boards. While some states allow cross-border delivery of health care via telehealth, remote-consulting physicians must be licensed in the state where the patient is located.<sup>86</sup>
- ▶ **Scope of practice considerations for nurses.** Since school and child care settings are more likely to be staffed by nurses than physicians, it is important to understand the unique legal issues faced by nurses: 1) whether nursing care provided electronically, over distance, is actually considered nursing, 2) whether there is a need for specific credentialing or certification to practice telehealth, and 3) the need for standards for safe and effective practice.<sup>87</sup>
- ▶ **Challenges in credentialing.** Credentialing and privileging issues

arise in telehealth when services involve two or more health care facilities. For hospitals acting as originating sites, a longstanding problem has been whether they must directly credential and privilege each practitioner providing telehealth services or whether they may rely on the credentialing and privileging decisions of other hospitals or entities providing telehealth services.<sup>88</sup>

### Legal Considerations

- ▶ **Patient privacy.** Telehealth can facilitate the generation, transmission, and storage of large volumes of electronic personal health information, which is subject to existing privacy and security requirements under HIPAA and the Health Information Technology for Economic and Clinical Health (HITECH) Act. Privacy and security issues may also be dependent on applicable state laws, which vary widely. These issues have historically been particularly important to racial and ethnic minority populations that need to balance the benefits of the use of mobile health care for promoting population health and reducing disparities, while recognizing potential privacy and security concerns.<sup>89</sup>
- ▶ **Malpractice liability.** The liability insurance industry has not yet fully addressed whether it will treat telehealth services differently than other types of practice, including whether it will charge different premium rates and/or require additional types of insurance coverage for providers practicing telemedicine. There is currently limited information on the extent of malpractice liability related to telehealth. As telehealth and related practices become more widespread, questions regarding medical liability are expected to increase.<sup>90</sup>

# Conclusion

School- and child-care-based telehealth programs provide an opportunity to leverage technology utilizing a health care delivery method that has promising evidence supporting its efficacy in improving access to care and health outcomes for children. Telehealth is also evolving as an important tool to help improve children's attendance and performance at school and provide convenient options for working families, who might otherwise have to sacrifice work time and/or wages for travel to health care visits or, worse, to forgo necessary preventive or acute care.

Over the past two decades, school- and child-care-based telehealth programs have expanded across the United States and have grown to be viewed as a valuable tool to both complement and expand the capacity to meet children's health care needs.<sup>91</sup> Successful school- and child-care-based telehealth programs have emerged as strong models for addressing the physical and behavioral health needs of children, and research regarding cost-effectiveness and outcomes is emerging as well. Telehealth programs vary. They may include primary care, specialty care, chronic disease management, hearing and speech services, mental/behavioral health care, and/or oral health care, and they may be located in rural as well as urban areas.

While several programs have found ways to successfully deliver pediatric telehealth services in non-traditional settings like schools and child care centers, certain barriers continue to limit widespread adoption of



telehealth in these settings, including technological, legal, administrative, and licensing barriers.<sup>92</sup> For patients, barriers are often related to concerns about privacy or changes to existing health care relationships, as well as a lack of basic health care literacy in terms of when and how to access medical or dental services.<sup>93</sup> For providers, barriers include coverage, liability, and licensing, while reimbursement tends to be the most common barrier.<sup>94</sup> System barriers may include space allocation, startup costs, maintenance, technical expertise and equipment, internet

speed and bandwidth capabilities, reimbursement, and buy-in from a broad range of stakeholders. Stakeholders include teachers, parents, students, parent-teacher associations, school nurses, school social workers, school and child care administrators, school district staff, local government councils and commission bodies, local health care providers, county health departments, and state lawmakers and regulators. Finally, every telehealth program must consider federal, state, and local regulatory policies and laws as well as costs, return on investment, and sustainability.<sup>95</sup>

# Key Resources:

## Checklists:

[AAP: Getting Started in Telehealth](#)

[Foley & Lardner Compliance Checklist](#)

## Model Contracts and Forms:

[AAP Model Forms and Checklists \(multiple resources\)](#)

[MUSC Student Enrollment Form](#)

[MUSC Consent Form](#)

## State Policies:

[Center for Connected Health Policy: State Telehealth Laws and Reimbursement Policies Report, Fall 2017](#)

[Center for Connected Health Policy: 50 State Scan of Telehealth Reimbursement Laws and Medicaid Policies—Factsheet](#)

[Report: Nearly every state has updated its telehealth legislation since last year](#)

## HIPAA and FERPA Regulations:

[Joint Guidance on the Application of the Family Educational Rights and Privacy Act \(FERPA\) And the Health Insurance Portability and Accountability Act of 1996 \(HIPAA\) To Student Health Records](#)

[HIPAA & FERPA in School Based Health Centers](#)

[HIPAA Resources from the HHS](#)

[HITECH Act Impact on HIPAA](#)

## Measurement:

[School Based Health Alliance: Standardized Performance Measures for SBHCs](#)

[Head Start Regulations for Health](#)

## Telehealth General:

[Telehealth resource Centers: Multiple Resources](#)

[American Telemedicine Association: Operating Procedures for Pediatric Telehealth](#)

[CVS Health & Northside Center Partner To Enhance Mental Health Clinic Program In New York City Schools](#)

[Avizia: Research Report Closing the Telehealth Gap 2017](#)

[AAP: Pediatric Applications of Telehealth](#)

[Lucille Packard Foundation for Children's Health Report: Realizing the Promise of Telehealth for Children with Special Health Care Needs](#)

[Children's Health Fund White Paper: 15 MILLION KIDS IN HEALTH CARE DESERTS: Can Telehealth Make a Difference?](#)

## School-based Telehealth:

[The Children's Partnership Issue Brief: School-Based Telehealth: An Innovative Approach to Meet the Health Care Needs of California's Children](#)

[American Telemedicine Association: State Medicaid Best Practice: School-Based Telehealth](#)

[University Of Maryland: Telemental Health](#)

## Telehealth in Child Care:

[University of Rochester: Facilitators and Barriers to Adoption of a Successful Urban Telemedicine Model](#)

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