

**School-Based Telehealth
Implementation:
Navigating Common
Challenges to Increase
Access to Care**

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FOREWORD: School-Based Health and Telehealth Amid the COVID-19 Pandemic

The recent Coronavirus (COVID-19) pandemic has sparked a number of unprecedented challenges for the nation, states, and communities to navigate. In regards to health, there is a significantly increased need for health care among adults and children alike. Yet the prioritization of health care for the most critically ill and vulnerable, and implementation of necessary social distancing measures in order to reduce the spread of the virus, have created significant challenges to accessing health services.

School-based health centers (SBHCs) serve as an essential health care access point for many children – particularly those living in poverty or in rural communities, who face barriers such as lack of transportation, provider shortages or lack of insurance at much higher levels.^[1] Prior to the COVID-19 outbreak and subsequent school closures, more than 65,000 children, families, and school personnel in Georgia received health care through SBHCs. **However, as of the time of publication, only five of 52 SBHCs in Georgia were still operating.**^[2] Their ability to stay open was because the centers have a separate entrance from the school – which minimizes the risk for teachers and other school personnel who are in the school to prepare educational materials or facilitate meal programs.^[2]

While schools have a number of critical disruptions to navigate (e.g., food and educational services), **ensuring that students who relied on school-based services have continued access to critical health services – both physical and mental health care – should be a top priority.** Particularly as these programs hold great promise in ensuring equity in health care access amid the public health emergency. More than 220,000 children in Georgia have asthma, and many children utilizing school-based health care receive asthma control and treatment services.

^[3,4,5] These preventative services are even more critical in our present circumstance, as those with asthma are at an increased risk of getting extremely ill from COVID-19, including asthma attacks, pneumonia and even acute respiratory disease.^[6] Similarly, the continued provision of school-based mental health care for children with mental health disorders is vital to avoid the mental health crises that can easily arise from discontinued services or the added fear, anxiety, sadness, and stress that our current situation creates. Moreover, SBHCs or other school-based health programs may now have the opportunity to act as greatly needed COVID-19 triage points for the health care system – assessing “worried well” and symptomatic patients, providing testing, and direction for home or higher levels of care.

One immediate, promising workaround to social distancing measures for health care providers has been the provision of services through telehealth (conducted through telephones, computers, remote patient monitoring devices, etc.). Federal and state policy makers, insurers, and others have rapidly modified policies and practices to support telehealth, including:

- The Department of Community Health (DCH) waived originating site limitations, allowing the patient’s home, among other locations, to be considered the originating site for telehealth services.
- The Department of Health and Human Services (HHS), Office for Civil Rights (OCR) has indicated that it will waive penalties for HIPAA violations against health care providers that serve patients in good faith through available technology (e.g. Facetime or Skype), excluding certain public-facing video communication applications (e.g., Facebook, TikTok).

- The Drug Enforcement Agency (DEA) issued guidance allowing a telemedicine visit, using an audio-visual, real time, two-way interactive communication system to satisfy the in-person requirement for prescribing a controlled substance. The Georgia Composite Medical Board passed an emergency prescribing rule supporting this guidance.
- Governor Kemp and the Georgia Department of Community Affairs (DCA) launched a new website to inform Georgians about ways to connect to high-speed internet throughout the state.
- The Department of Behavioral Health and Developmental Disabilities (DBHDD) waived the school-setting requirement for the Georgia Apex Program, ensuring that enrolled students and students that have been identified as at-risk can continue to receive services remotely during the public health emergency.
- Federally funded health centers (such as Federally-Qualified Health Centers (FQHCs)) can submit a 'Change in Scope' request to Health Resources and Services Administration (HRSA) to establish a temporary site for services. This may provide a vehicle for SBHCs that are partnered with FQHCs to establish an office for telehealth services, given school closures.

Note: See our [COVID-19 Response Dashboard](#) to track additional policy and practice changes made throughout this pandemic.

It is clear that **schools with the capacity to not only provide health services, but to do so through telehealth, are uniquely positioned to continue serving their children**

and families during this crisis. However, we know that implementing school-based telehealth (SBTH) is not without challenges. In the past, key stakeholders (e.g. SBTH administrators, school nurses, school personnel, healthcare providers, and parents) have cited a lack of understanding and buy-in related to telehealth, difficulty establishing or maintaining health care provider relationships, lack of equipment training, and general lack of knowledge on successful SBTH implementation as significant barriers to program success.

Prior to the current crisis – in an effort to better identify the key components of successful SBTH programs, and understand implementation barriers as well as the practices that address them – Voices for Georgia’s Children (Voices) embarked on a SBTH literature review and case study of two different Georgia SBTH models. The resulting report, *School-Based Telehealth Implementation: Navigating Common Challenges to Increase Access to Care*, captures our findings and offers recommendations and tactics for navigating some of the most critical challenges for schools, school districts, and policymakers.

As COVID-19 continues its many negative impacts on communities, it may also serve as a catalyst for the implementation or renewal of SBTH programs. We hope that interested schools, providers, philanthropists, and policy makers are able to utilize this report now, in our current context, as well as in the future, as a resource to move forward successful SBTH implementation in Georgia. Our children and families are depending on it.

ACKNOWLEDGEMENTS

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Executive Summary

More than 170,000 of Georgia's 1.8 million school-age children stay home sick from school more than six days a year.^[7] Absenteeism has a direct impact on academic achievement, including reading below grade level and increased probability of becoming a high school dropout.^[8] And that impact is heightened after six days. The top two leading causes of student absence are health related. While illness is not the only reason that children may miss school, increasing a school's ability to address health concerns holds promise as it relates to reducing student absences and improving academic performance.

The use of telehealth to increase children and families' access to health care is a growing practice in Georgia. Telehealth means the use of information and communications technologies including, but not limited to, telephones, remote patient monitoring devices, or other electronic means to support clinical health care, provider consultation, patient and professional health-related education, public health, and health administration.^[9] Within the last five years, school-based telehealth (SBTH) programs began emerging as a valuable tool for providing children primary, acute, and specialty care.^[10] Although telehealth services can increase access to clinical care, it is not intended to replace traditional care, as telehealth can be used for limited services, including medication management; diagnosis of some illnesses related to the ear, nose, and throat; services related to some psychiatric conditions (e.g., attention deficit hyperactive disorder (ADHD), depression); and some management of chronic health conditions (e.g., diabetes, asthma).^[11] While telehealth adoption has increased, several entities, including schools, have experienced barriers to implementation and utilization.

To identify the key components of successful SBTH programs, barriers to implementation, and the practices that address the barriers to success, Voices for Georgia's Children (Voices) conducted a literature review and a case study of two different SBTH models in Georgia — a rural school-based health center (SBHC) program in North Georgia and a school nurse-based program in an Atlanta-area school. The rural site partnered with a regional federally qualified health center (FQHC), while the Atlanta-area site partnered with a local children's health care provider. This project aimed to identify and share with key stakeholders the potential barriers to and effective practices in four key areas that facilitate the successful implementation of SBTH programs: stakeholder engagement, technical capacity,

human resources and administrative capacity, and financial capacity.

Findings indicate that the following capacities and resources are needed for a successful SBTH program:

- **Stakeholder engagement** — support and buy-in from key stakeholders including parents and school personnel such as principals, nurses, and teachers
- **Technical capacity** — equipment, internet access, training, and technical support
- **Human resources and administrative capacity** — private space to render services, partnership with health care provider, communication with primary care providers/ children's medical home, and personnel to serve as presenter and to administer and manage program
- **Financial capacity** — funding for operational costs, agreement with agency to handle billing

Equipped with these capacities and resources, schools are best positioned to successfully implement a SBTH program. However, despite best efforts, some schools and school districts may face barriers. Common barriers identified include:

- Lack of stakeholder understanding of telehealth and buy-in
- Difficulty engaging and sustaining relationships with health care providers or specialists
- Low program enrollment
- Underutilized equipment
- Lack of adequate personnel to implement and manage the program
- Lack of continuity in care (or care fragmentation)
- Lack of quality benchmarks

Additionally, findings revealed that while a school nurse-based model can be effective, it can be more challenging to implement and sustain. When resources allow, the ideal SBTH program would be based within a SBHC. Most SBHCs have established partnerships with a FQHC or local hospital, ensuring access to primary and specialty care providers. Further, housing a SBTH program within a SBHC provides an infrastructure to provide comprehensive care and promotes sustainability, as partnering entities are eligible for more funding opportunities than stand-alone SBTH programs.

If there are limited resources, prohibiting the development of an SBTH program within an SBHC, findings suggest designing the SBTH program around the most common health concerns and either engaging the local primary care provider that serves the majority of the students or the local hospital/FQHC, as the distant site.

Information gathered during this process elicited several aspects of successful SBTH programs and strategies that schools can use to overcome potential barriers. Voices recommends implementing the following strategies to increase the possibility of SBTHs' positive impact on access and health.

RECOMMENDATIONS

Schools and School Districts

1. If possible, develop a SBTH program within an existing or planned SBHC. If this is not possible, foster strategic partnerships with local hospitals, provider networks, practitioners, or university systems to ensure access to providers and specialists.
2. Engage and enlist the support of key stakeholders before planning begins, such as district and school-level administrators, school nursing and office staff, teachers, parents, local health providers, and other community members.
3. Allocate time and resources to continuously market the program and recruit and enroll students.
4. Ensure an adequate number of trained personnel to provide services and manage program's administrative components, including billing/reimbursement, and maintaining regular communication with primary care providers to ensure continuity of care (e.g., one trained presenter and two to three staff persons to carry out administrative responsibilities).
5. Ensure that all children, regardless of insurance status, are served through the SBTH program.

Policymakers

1. Establish a governing entity (e.g., South Carolina Telehealth Alliance) for telehealth delivery that has authority to ensure quality, streamline school access to qualified telehealth providers, and develop and encourage best practices.
2. Increase opportunities for telehealth programs to be implemented within a comprehensive health system, including state funding for comprehensive school-based programs throughout the state.
3. (Medicaid) Expand health care locations able to conduct presumptive eligibility to include SBHCs or SBTH programs.

While programs have been effective in developing strategies to overcome common barriers, it is vital that key stakeholders identify and seize opportunities to make it easier to implement successful SBTH programs. The proposed recommendations offer strategic practice and policy considerations that can greatly reduce barriers to program implementation. The implementation of successful SBTH programs can significantly improve equity in access and health outcomes for Georgia's children and families.

Introduction and Background

Children living in poverty are reported to have higher rates of chronic health conditions, like asthma, but are also less likely to receive their routine well-child visits.^[1] Children in rural communities are also subjected to the effects of extreme provider shortages and transportation barriers.^[12] In 2018, the Georgia Board of Health Care Workforce reported that 60 counties did not have a pediatrician.^[13] Provider shortages often lead to children and families foregoing the care needed or accessing care in neighboring counties, often resulting in lost wages and missed days from schools.^[10,14]

Advancements in technology have significantly improved health care delivery over the past 10-15 years.^[10] One strategy that has been employed is the use of telehealth, defined as the use of information and communications technologies, including, but not limited to, telephones, remote patient monitoring devices, or other electronic means that support clinical health care, provider consultation, patient and professional health-related education, public health, and health administration.^[9] Recognizing the potential benefits of telehealth, over the years Georgia has made significant investments and passed state policies to promote the expansion of telehealth services (see [Appendix A](#) for a timeline). Just last year (2019), Georgia amended the Telemedicine Act, renaming it the Telehealth Act. It provides a framework for the provision of health care services through telecommunication technologies and requires reimbursement parity of payers.^[9]

Leveraging technological advancements through a defined school-based telehealth (SBTH) program provides an opportunity to increase access to health care and address issues of equity in access and outcomes, especially for rural and underserved communities.^[14] SBTH programs increase students' and, in some cases, school staff's and the community's access to a limited set of health services, including managing the following acute and chronic health conditions.^[1,15]

- **Acute** — colds and flu, infections, pinkeye, rashes, allergies, and mental health disorders like anxiety or depression.
- **Chronic** — asthma, diabetes, genetic conditions, obesity, congenital cardiac conditions, and epilepsy.

BENEFITS OF SBTH



The ability to medically serve and care for more children in rural and low-income areas



Cost-savings in the form of less lost wages from parent and caregiver missed workdays and fewer visits to emergency departments



Time saved in treatment of a child's illness



Fewer hospitalizations and emergency department visits



Lower A1C values for children with diabetes



Fewer asthmatic events



All model types will require compliant equipment valued at minimum of \$10,000

SBTH programs are not intended to replace traditional care. Effective SBTH programs, specifically those that follow the “hub-and-spoke” model design^[16] or are built within a comprehensive health system (e.g., school-based health center (SBHC)), have been shown to be more effective in increasing access to health care and improving health outcomes in comparison to other SBTH models (see **Figure 1** for a comparison between model design and effectiveness).^[12] A SBTH program that is adjunct to a SBHC builds upon the primary services already rendered (typically medical, behavioral, dental, and vision care), and leverages telehealth to expand reach to services that the SBHC does not have and to extend services to other schools in the district.^[12] If this type of infrastructure is not possible, then developing SBTH programs in partnership with a federally qualified health center (FQHC) or hospital can result in a similar impact on access and health outcomes.^[12] SBTH programs have been utilized to increase access to health education for families with children that have chronic conditions, reduce barriers to care for individuals in rural communities, reduce absenteeism due to illness, and provide services to children who are not receiving health services or are underutilizing

services, while eliminating or reducing missed days of work for parents.^[10,14,17] Specific to pediatric chronic conditions, recent studies found that students who were monitored under SBTH programs had lower hemoglobin A1C values (for children with diabetes), and fewer asthmatic events, hospitalizations, and emergency department visits.^[10,14]

Despite the momentum surrounding telehealth, the success of SBTH programs varies throughout the state, with some programs experiencing challenges, including low program enrollment, lack of stakeholder buy-in (e.g., parents, school administrators and staff, providers), underutilized equipment, difficulty engaging and sustaining relationships with health care providers or specialists, quality of care (including personnel capacity), billing, and a lack of continuity in care (or care fragmentation).^[12,18] In order to achieve optimal implementation, it is critical that programs employ processes and practices to help navigate these obstacles. Further, a definitive infrastructure or governing entity to support, monitor, and advise implementation and billing of telehealth services could be critical in helping overcome obstacles, but Georgia does not currently have one.

To identify actionable steps for implementing an effective SBTH program, Voices for Georgia’s Children (Voices) conducted a literature review (see [Appendix B](#) for research methods) and a case study of two different SBTH models in Georgia — a rural SBHC model in North Georgia and a school nurse–based program (school nurse–based model) in an Atlanta-area school. The rural site partnered with a regional FQHC, while the Atlanta-area site partnered with a local children’s health care provider. This project aims to identify and share with key stakeholders — from community-level service providers to policymakers — the challenges and effective practices in key areas that lead to greater impact on access and health outcomes.

This report summarizes effective practices relating to the key elements of SBTH programs: (1) stakeholder engagement — securing buy-in from all key stakeholders and recruiting and enrolling students; (2) technical capacity — procuring appropriate equipment and resources; (3) human resources and administrative capacity — identifying and training key personnel, developing provider relationships, communicating with primary care providers/children’s medical homes, and establishing adequate program space and management; and (4) financial capacity — ensuring financial sustainability. Results from the literature review provide a brief description of the telehealth landscape in Georgia and highlight key process areas related to recruitment, enrollment, implementation, billing, and program sustainability. Findings from the case study

highlight the successes, challenges, and lessons learned from two participating SBTH program models. Finally, to help inform the successful implementation of a SBTH program, a list of considerations for implementing a SBTH program has been provided.

Findings

Information gathered during the research process elicited common barriers, strategies to overcome barriers, and key capacities and resources needed for successful SBTH programs. The common barriers to implementation for many SBTH programs are:

- Lack of stakeholder understanding of telehealth and buy-in
- Difficulty engaging and sustaining relationships with health care providers or specialists
- Low program enrollment
- Underutilized equipment
- Lack of adequate personnel to implement and manage the program
- Lack of continuity in care (or care fragmentation)
- Lack of quality benchmarks

Findings also highlighted effective strategies for navigating the common barriers, such as (1) engaging stakeholders (e.g., parents, school staff, and local and state leaders) at the inception and throughout implementation of the program, (2) presenting a demonstration of the program/services to parents prior to student recruitment and enrollment (see **Stakeholder Engagement** for a description of the program enrollment process), (3) partnering with large health care organizations (e.g., FQHCs and hospitals) to ensure access to providers and specialists, and (4) establishing protocols to determine if telehealth is the best intervention and to guide the visit, as well as follow up with students’ primary care provider.



CAPACITIES & RESOURCES

Accordingly, to successfully implement a SBTH program, the following capacities and resources must be in place:

STAKEHOLDER ENGAGEMENT

- Support and buy-in from the school district to implement the program
- Buy-in from relevant school personnel including principal, nurse, and teachers
- Support and buy-in from parents and community members

TECHNICAL CAPACITY

- Equipment - Bluetooth-enabled stethoscope and otoscope, computer with webcam
- Internet access
- Training on how to use the equipment
- Equipment support service

HUMAN RESOURCES AND ADMINISTRATIVE CAPACITY

- Presenter (e.g., the school nurse, SBHC staff, etc.)
- Personnel to manage and implement program (e.g., coordinate with providers, market the program, communicate with parents and the students' primary care provider, complete paperwork, manage consent forms, etc.)
- Health care provider to provide the services
- Private space to provide services — either within school or in SBHC

FINANCIAL CAPACITY

- Funding/donors to cover the cost of equipment, training, and customer support
- Funding to cover the cost of marketing, recruitment, and enrollment materials
- For SBHCs, funding to cover cost of building and operating brick-and-mortar SBHC
- Agreement with health care provider to handle billing and reimbursement (for the services and, if possible, the presenter or facility fee)

Specific information about each of these key capacities and resources and the potential barriers to effective implementation relating to each of these elements is described in detail on the following pages. **Figure 2** (p. 9) provides a high-level sample of SBTH program development and implementation, including each of the aforementioned key capacities and resources, common barriers, and tips to overcome the barriers.

Stakeholder Engagement

To implement a SBTH program successfully, schools must have support and buy-in from a wide variety of key stakeholders, including the school district, school administrators and nurses, teachers, parents, and community health providers. In a school nurse-based model, the nurse must be willing to serve as the presenter and to provide telehealth services in addition to existing responsibilities. The principal and other key school staff (e.g., the registrar/administrative assistant and teachers) must be supportive of the program and the school must have an established relationship with a health care provider. In a SBHC model, the on-site health care providers must be willing to provide telehealth services and establish relationships with other specialty providers in the community if they don't already have partnerships with a FQHC or other provider networks.

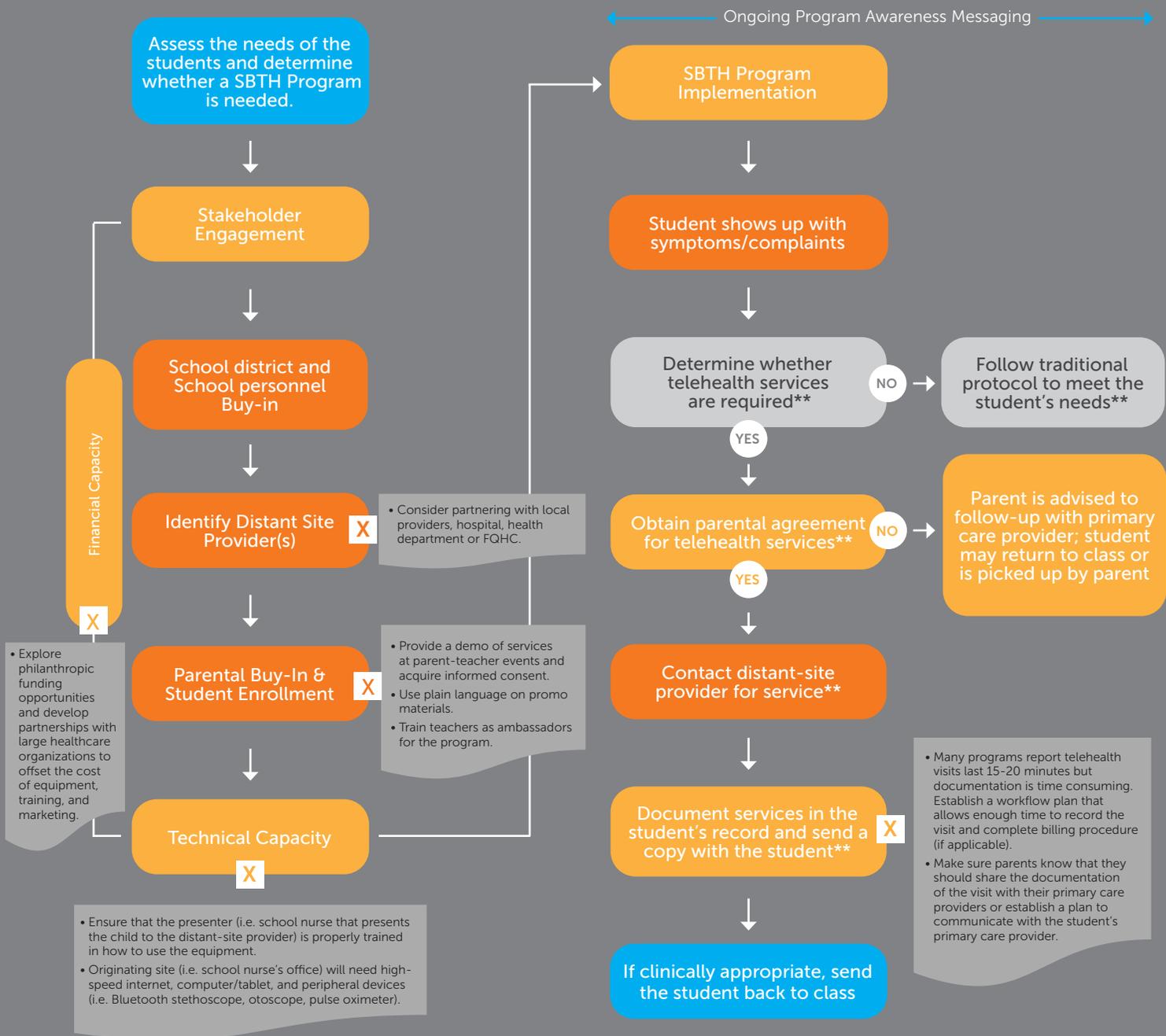
Once district and school-level approval has been secured and a partnership with a health care provider has been formally established, SBTH programs can begin marketing the program and engaging participants.

RECRUITING AND ENROLLING STUDENTS

A critical first step in implementing a SBTH program is recruiting and enrolling children. Developing a step-by-step process to recruit, enroll, and track participants has been beneficial in successful programs (see [Appendix C](#) and [D](#) for examples).^[19] **Parental concerns about privacy and lack of understanding about telehealth are the most frequent barriers to recruitment, enrollment, and utilization.** Research shows that program administrators encounter parental concerns surrounding violation of privacy and the nature of the treatment received. Informational sessions for parents and caregivers at various times of the day (e.g. weekdays, weekends, late evenings) to accommodate work schedules, followed by mailing informational materials, have been identified as a common way to reduce those concerns.^[14]

SBTH PROGRAM DEVELOPMENT

SBTH PROGRAM WORKFLOW



X Common barriers

Helpful Tips

** Human Resources and Administrative Capacity

Research also shows parents' lack of understanding about and comfort with telehealth as a common barrier as it relates to SBTH delivery within a SBHC model. Some parents struggle to make the shift from typically receiving critically needed services like medical, behavioral, dental, and vision care on-site via the SBHC to receiving the specialty care that the SBHC does not provide via SBTH.

Further, some parents, and especially grandparents raising children, were initially wary of the telehealth services in the SBHC model included in our evaluation. To overcome this challenge, the FQHC and school staff demonstrated the equipment at multiple open house events, created flyers with pictures of the process, and changed the terminology to "a doctor visit with a computer." Additionally, staff encouraged teachers and school-based staff to become familiar with and use the technology so that they could serve as program ambassadors and address any parental concerns. Once the FQHC staff demonstrated the equipment and process, comfort and usage levels increased, and a total of 65 children used telehealth services in the 2018-2019 school year.

In the school nurse-based model, a total of 135 children were initially enrolled in the program, but only 13 students used the services in the 2018-2019 school year, the first year of the program. Similar to the rural site, this program demonstrated the equipment at PTA meetings and open houses to increase knowledge and comfort levels. To better understand the lack of participation, parents of children who were enrolled but did not use services were surveyed. Results revealed that the primary reasons for not using the services included that their child did not get sick and that they did not know how to use the services. Findings also indicated that many parents did not recall enrolling their children in telehealth, and several parents were not sure if their children had received telehealth services or not, suggesting that parents do not fully understand the program and how it works. Some parents reported that the name "telehealth" was confusing and reported that they mistakenly viewed the other on-site health services offered (e.g., the mobile asthma and dental vans) as telehealth.

These findings suggest that continual marketing and education about telehealth and what it entails is needed, especially in a traditional school nurse-based model, where parents are not as familiar or comfortable with the provision

of on-site health services. A key lesson learned in the school nurse-based model was the need to follow up with parents of enrolled children to remind them that the services are available and that their children are eligible to participate. To assist with these efforts, school administrators reported planning to engage the parent liaison to help communicate with parents about the program.

CRITICAL SBTH STAKEHOLDERS AND PARTNERS:^[4]

- Parents
- School district administrators
- School nurses
- State nurse associations
- Teachers
- Technology platform providers
- Telehealth champion
- Community dentists
- Community physicians
- Community health centers (FQHCs, rural health clinics)
- Hospitals, including academic medical centers and teaching hospitals
- Local pharmacies
- Payers
- Regulatory bodies (Office of the Administration for Children and Families — Office of Head Start)

OBTAINING INFORMED CONSENT

Another key step in recruitment and enrollment is obtaining informed parental consent. According to Georgia Medicaid, informed consent (which is required to enroll the student) should include agreement to receive telehealth services. A

Informed Consent Tips

- Include a clear statement that indicates that the parent is in agreement with their child receiving telehealth services.
- Present the option to refuse the telehealth service at any time without affecting the right to future care or treatment and without risking the loss or withdraw of any program benefit to which the member would otherwise be entitled.
- Describe any potential risks, benefits, and consequences of utilizing the services (e.g. identifiable images or information form may be shared with other providers).
- Inform the parent that s/he has the right to be informed of the parties who will be present at each end of the telehealth consultation and s/he has the right to exclude anyone from either site.
- Assure that s/he has the right to see an appropriately trained staff or employee in-person immediately after the telehealth consultation if an urgent need arises.
- Include a copy in the student's medical records at both the originating and distant sites.

copy of the form must be included in the medical records at both the originating site (location of the SBTH program) and the distant site (consulting provider's location). It is imperative that the form describe any potential risks, benefits, and consequences of utilizing the services. See [Appendix E](#) for an example of an informed consent form; SBTH programs are not required to use this exact form, but the form created must include all of the stated requirements to be eligible for reimbursement.^[20]

After receiving informed consent, students are enrolled in the program and eligible to utilize telehealth services. Many programs follow a protocol or screening tool (see [Appendix F](#) and [G](#) for examples) to determine whether telehealth is the appropriate intervention for the illness and ensure that the originating site contacts the parent to obtain consent for treatment at the time the child presents.^[20,21] When a child who has a signed consent form visits the nurse's office or the SBHC and is eligible for telehealth, the nurse or SBHC provider must contact the parent via phone to notify the parent that their child has a health concern that can be addressed through telehealth and to ensure s/he is in agreement with proceeding with treatment.

The process of obtaining informed consent to complete enrollment and parental approval for treatment may have contributed to low utilization in the school nurse-based model, where parents are less familiar and comfortable with their children receiving extensive health services on-site. In addition, the consent form utilized was at a very high reading level and extremely technical, which may not have been easily understood by the parent population. Interviews with key school personnel indicated that obtaining parental approval to proceed with treatment was challenging for many reasons, including that parents were unavailable (phone numbers change frequently, parents are at work, etc.), some parents "changed their minds" and refused to have their children be seen via telehealth, and some parents were unsure of the financial commitment, especially if they did not have insurance, and thus refused care.

In the **SBHC model**, obtaining consent at the time of treatment was not an issue, as parents were accustomed to providing consent for on-site treatment and services. **Telehealth is viewed as a part of the services provided, suggesting that this model poses fewer obstacles to enrollment and use.**

Technical Capacity

A critical component of implementing a SBTH program is obtaining and utilizing the appropriate technology and equipment that ensures high-quality telehealth visits.

^[15] Equipment requirements may vary depending on the scope of the program, but essentials for originating sites (where students receive services via telecommunication technologies) include:^[15]

- Videoconferencing unit or videoconferencing software for computers or mobile devices (e.g., tablets and cell phones);
- Peripheral medical devices (e.g., otoscope, Bluetooth equipped stethoscope, pulse oximeter, thermometer) that connect to the videoconferencing unit or software;
- Audiovisual clarity; and
- Reliable high-speed internet connection (see [Appendix H](#) for more details on technology requirements).

SBTH programs must ensure that child information is kept private and aligns with all guidelines set forth by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Family Educational Rights and Privacy Act (FERPA).^[10,15] Most programs prioritize identifying an adequate method of encryption to protect the confidentiality and integrity of the transmitted information. It is also beneficial for both the originating and distant (where the physician or practitioner is located) sites to develop safeguards specific to data integrity to enable sufficient privacy and security of protected health information.^[15]

In addition to having the appropriate equipment and internet access, staff must be trained in the use of the equipment, and there must be a source of ongoing technical support should challenges with the equipment arise. Ideally, the originating site should have more than one person trained and authorized to use the equipment in the event that the primary presenter is out of the office or unavailable to perform a telehealth visit due to other obligations or competing priorities.

In a school nurse-based model, it is ideal to have another staff member who is trained in the use of the equipment. Unfortunately, school-based administrative staff are often overtasked, and thus unavailable to provide this service. In



the school nurse-based model we assessed, the parent liaison, who is typically a volunteer, was trained to use the equipment but was not tasked to provide services.

The cost of the equipment and technical support must be considered when developing a SBTH program. In the school nurse-based model that we assessed, a regional insurance provider donated the equipment and technical support at a **value of approximately \$10,000**. In the SBHC model, the equipment was provided and maintained by the health care provider, the local FQHC. Neither site reported issues with the equipment and noted that once they had received training, it was easy to operate.

Human Resources and Administrative Capacity

To effectively implement a SBTH program, schools must possess adequate space and qualified personnel. As required by HIPAA, SBTH programs must have a private space to provide services — either within the school or in the SBHC. Personnel needs vary depending on school size and location, as well as characteristics of the medical needs of the children being served. The personnel essential to SBTH delivery is the presenter — the person at the originating site responsible for

PRESENTING A CHILD IN GEORGIA

Georgia code has not determined a minimum presenter requirement or even that there must be a presenter at all. Medicaid does not specify any presenter requirements, however, the telehealth manual does indicate that services can be provided by a nurse practitioner, clinical nurse specialist, physician assistant or other licensed specialist, as long as the provider is working within the scope of their professional license.

identifying that telemedicine is the appropriate intervention for the child — and the distant-site provider.^[12] Successful programs have typically chosen a nonphysician provider that is skilled in using the peripheral medical equipment, such as school nurses, health aides, or licensed practical nurses, as presenters.^[13] It is important to ensure that the selected individual to serve as the presenter is operating within their scope of practice (see sidebar regarding Georgia and Medicaid requirements).

Successful programs also utilize both training and technical assistance. **Training should be offered (by the partnering health care organization or provider network) to the presenter and provider and should focus on electronic health record (EHR) and telehealth platform use, telemedicine practices, workforce flow training, and mock visits.**^[12,14] It is also important to have ongoing technical assistance and support available to ensure proper equipment function and connectivity.^[12,14]

The most successful telehealth programs ensure that program facilitators (the presenters) are adequately trained, employ presenter protocols, and identify a champion to facilitate multilevel collaboration.^[12,14,21] The telehealth

champion should work to create a cohesive team in support of establishing and maintaining a SBTH program. All parties should work together to understand the program mission and focus for maximum results and effectiveness.^[21]

In addition to having a champion to help ensure the long-term sustainability of the SBTH program, effective programs also need personnel to administer and manage the program. A successful program requires marketing and ongoing communication and engagement with key stakeholders, especially parents and school staff, as well as administrative support such as completing required paperwork, submitting documentation of services for reimbursement to appropriate school district officials, and providing management and oversight to ensure that the program is being utilized and operating effectively.

Available literature on whether facilitating SBTH practices aids or impedes the capacity and productivity of the presenter was extremely limited. However, in the school nurse–based model we assessed, limited time and competing priorities and demands did appear to hinder the school nurse’s ability to provide telehealth services. The school nurse was tasked with managing multiple programs (e.g., routine care, the on-site mobile vans, educational programs, and telehealth etc.), administering daily medicines, and triaging and serving all children sent to the nurse’s office. Thus, the amount of time available to see large numbers of children via telehealth

TELEHEALTH CHAMPIONS



Play a key role in SBTH program implementation.

Facilitate multilevel collaboration to establish and maintain a SBTH program.

was limited. Additionally, because telehealth services must be provided in private, in the nurse's office with only the presenter and the patient, other children who may be ill may have been delayed from being seen immediately.

In addition to providing the telehealth visits, the school nurse was also tasked with completing the required paperwork both before and after telehealth services are provided. While the actual visit is often brief (15-20 minutes), the amount of time needed to complete the paperwork can be considerable. The school nurse was also responsible for recruiting and enrolling children and communicating with parents. While some administrative assistance was provided, it was limited, and the lack of sufficient time to both implement and manage the program proved challenging.

Accordingly, the need for additional personnel and program management support must be taken into consideration when developing a telehealth program using the school nurse as the presenter.

In the SBHC model we assessed, there were several staff members trained as presenters, and the medical providers were all employed by the FQHC, and thus able to provide consistent, high-quality care. Additionally, there was dedicated space and equipment on-site to serve students and their families and administrative staff who could assist with the required paperwork. As a result, greater numbers of children were able to be provided services via telehealth.

ESTABLISHING AND SUSTAINING PROVIDER RELATIONSHIPS

In order to be successful, SBTH programs must have an established relationship with a medical provider. Among the SBTH programs reviewed in the literature, all had an existing relationship with the distant-site provider. Similarly, both the school nurse-based and SBHC models included in our case study were able to establish successful relationships with pediatric health care providers. In North Georgia, the school already had a SBHC on-site that was operated by the local FQHC. In the Atlanta area, the school district was approached by an insurance provider and encouraged to select a school to pilot the telehealth program. The selected school already had a relationship with a local children's health care provider who agreed to provide additional services via telehealth.

When relationships with providers are not already existing, it can be much more challenging. According to a recent report by Georgia's Rural Hospital Stabilization Program, establishing provider relationships was a common barrier among stakeholders interested in implementing telehealth programs.^[18] To address this issue, the Global Partnership for Telehealth, an organization that provides Georgia-based organizations and schools with telemedicine equipment and technical assistance, **recommends that school districts seeking to implement telehealth first review student records and contact the local primary care provider(s) serving students.** Oftentimes, local providers are seeking opportunities to serve children and families that are underutilizing health care services. Further, engaging the local providers demonstrates an interest in partnering to reduce health care barriers and improve the health of children. When the local primary care provider is not interested or is unable to partner, many programs have sought partnerships with provider networks, the local hospital, or FQHC.



COMMUNICATING WITH PRIMARY CARE PHYSICIANS AND CHILDREN'S MEDICAL HOMES

Ensuring that the child's primary care provider or medical home (a family-centered, integrated health care team that provides comprehensive care from birth through transition to adulthood^[22]) is fully aware of the services rendered through the SBTH program promotes continuity of care. **Continuity (and quality) requires adequate communication between providers to ensure that appropriate follow-up and health care management steps are taken.** The available literature focuses heavily on proper documentation and communication between both the originating and distant sites, while maintaining HIPAA and FERPA requirements.^[12,15] However, outlining defined processes specific to sharing information with the primary care provider or child medical home was extremely limited.

In the SBHC model we assessed, the SBHC served as the child's medical home/primary care provider in many cases, and thus continuity of care was provided. In cases where the SBHC was not the child's medical home, staff communicated with the child's primary care provider and their parents after each telehealth visit. In the school nurse-based model, the local health care provider communicated with both the school nurse and the child's primary care provider/medical home after the telehealth visit. The school nurse was responsible for sending the visit summary home with the child to the parents. In both models, efforts to communicate with the child's parents and health care providers to ensure continuity of care are undertaken.

SBTH DIRECT EXPENDITURES

- Equipment and technology valued at a minimum of \$10,000
- Salaries
- Administrative expenses (e.g. technical assistance costs)

More than

1 MILLION

Georgia children rely on Medicaid or the Children's Health Insurance Program (CHIP).

Financial Capacity

To implement and sustain an effective SBTH program, schools need to ensure that they have adequate resources to fund the program. The majority of the costs for SBTH programs is associated with direct expenditures, including equipment and technology, salaries, and administrative expenses.^[23] Several programs have overcome the direct costs through state, federal, or philanthropic funding.^[12] Developing SBTH programs in partnership with FQHCs, hospitals, and medical centers generally creates more opportunity for sustainability because these entities may qualify for more state and federal funding opportunities than a stand-alone SBTH program.^[12] The services rendered to students are reimbursed by public and private payers. Over 1 million children rely on Medicaid or the Children's Health Insurance Program (CHIP), and due to recent pay parity laws, all services provided via telemedicine are reimbursed at the same rate as traditional health care visits.^[9,24] Additionally, through Georgia Medicaid, originating sites or schools are eligible for a facility fee of \$20.52 per telehealth visit, provided that claims are submitted with the correct revenue code^[25] and bill type.^[11]

To ensure adequate funding, schools should seek funding from a variety of sources. SBTH programs create added value in the form of both saved time and money, and these benefits should be capitalized on as a tool to secure funding.^[12,17] Additional criteria that are vital to success include keeping program sustainability at the forefront of funding decisions, implementing secure billing practices, and ensuring that services offered are reimbursed by respective payers (private insurer or Medicaid).

A key component of the SBHC model we assessed that contributed to its success is that it is financed and operated by a FQHC. The FQHC was responsible for all costs associated with the SBTH program (e.g., equipment, personnel, space, etc.) and for handling the billing and reimbursement components of the program. As a FQHC, a provider is able to recoup the costs of services rendered and provide services to all children regardless of insurance status. In the school nurse–based model, the equipment and technical support were donated, and there were no personnel costs as the program utilized the school nurse who did not receive any additional compensation for these additional duties. The local health care provider was responsible for handling billing and reimbursement. School personnel were unclear if the district had submitted the telehealth visits performed for reimbursement and thus recouped some administrative costs. Regardless of the model being implemented, ensuring that there are adequate resources to cover program costs and planning for financial sustainability is vital to the success of an effective SBTH program.

Program Evaluation

While not a required activity, evaluating the process and impact of SBTH programs is helpful in identifying opportunities for improvement and illustrating program value. Although the literature specific to measuring SBTH programs is limited, measures can be developed by considering how to best communicate the connection between improved health outcomes and academic performance, as well as adopting key measures from similar school-based health programs such as SBHCs.^[7] **It is beneficial to engage multiple stakeholders (teachers, school and program administrators, payers, providers, state health and education officials, and families) in the development of an evaluation protocol.**^[12]

Developing the evaluation in advance of implementing the SBTH program promotes long-term stakeholder involvement. Stakeholder engagement and buy-in are essential to program development and measuring success and obstacles.^[7] The goal of conducting a routine evaluation is to highlight program efficiencies, identify barriers to program success, and assess children and families' self-efficacy (see [Appendix I](#) for suggested evaluation measures).

[12,14,26]

Conclusion and Recommendations

SBTH programs, if properly implemented, can significantly reduce barriers to health care for children and families and improve students' health outcomes. To effectively implement a SBTH program, capacity and resources are needed in four key areas: stakeholder engagement, technical capacity, human resources and administrative capacity, and financial capacity. Despite best efforts, some schools and school districts may face barriers to successful implementation due to low program enrollment, an inability to identify or engage health care providers or specialists, or inadequate staffing to manage and implement the program. Strategies like providing telehealth visit demonstrations at school events and engaging the local hospital or FQHC as the distant site can help reduce some of these barriers.

Further, while offering SBTH services in any capacity provides the opportunity to remove barriers to care and potentially improve the health outcomes of the children and families it serves, SBTH programs that are adjunct to a larger, comprehensive health system are in a better position to provide integrated care and are generally easier to sustain. In the absence of a connection to a larger health



system, defined protocols that prioritize parental buy-in and continuity of care (e.g., communicating with students' primary care providers) are essential.

To ensure that SBTH programs are effective and can successfully overcome barriers, Voices recommends that school districts or schools looking to implement SBTH programs consider the following:

- **If possible, develop a SBTH program within an existing or planned SBHC.** SBHCs are designed to promote integrated care for children and families. Most SBHCs have established partnerships with a FQHC or local hospital, ensuring access to primary and specialty care providers. Further, housing a SBTH program within a SBHC promotes sustainability, as partnering entities are eligible for more funding opportunities than are stand-alone SBTH programs. If a SBHC model is not feasible, ensure that the necessary resources and capacities are in place to support and sustain a school nurse–based model.
- **Engage and enlist the support of key stakeholders such as district and school-level administrators, school nursing and office staff, teachers, parents, local health providers, and other community members.** Engaging key stakeholders early and often is essential to program success. Having multiple perspectives can help navigate common barriers to successful implementation and gain buy-in for the program from inception. In a school nurse–

based model, it is imperative that the school nurse be committed to the program and that s/he has the support of the principal and front office staff.

- **Allocate time and resources to continuously market the program and recruit and enroll students.** Presenting a demonstration of the program to parents prior to enrollment and providing information in simple, easy-to-understand terms helps parents better understand the services provided and how to access them. Following up regularly with parents who enrolled their children to remind them that the services are available and encourage them to have their children use the services is key to continued utilization.
- **Ensure that there are adequate, trained personnel available to provide services and manage the administrative components of the program.** There must be at least one dedicated, trained presenter at the school and, ideally, several staff members who can provide the services should staff turnover be an issue or competing demands surface. Additionally, staff other than the presenter should be allocated to the program to assist with the required documentation, communication, and management.
- **Ensure that protocols are in place for handling billing and reimbursement and for maintaining regular communication with primary care providers to ensure continuity of care.** Agreements with the local health care provider must clearly describe who is responsible for billing and how services will be reimbursed. Additionally, clear procedures for communicating with the child's parents/caregiver and primary care provider (if not the SBTH provider) prior to and after each visit should be in place.
- **Ensure that all children, regardless of insurance status, are served through the SBTH program.** A critical benefit of SBTH programs is that they afford children access to needed care in a convenient location. Transportation, lack of local providers, limited in-network providers, and lack of insurance have all been cited as barriers to health care for children. SBTH programs have the potential to remove these barriers. Accordingly, core SBTH services should be made available to any enrolled child in need, regardless of their insurance status – public (Medicaid), private, or



uninsured.

To help support the development and implementation of SBTH programs throughout Georgia, Voices recommends that policymakers employ the following considerations:

- **Establish a governing entity for telehealth delivery that has authority to ensure quality, streamline school access to qualified telehealth providers and develop and encourage best practices.** Successful SBTH program implementation requires proper training in evidenced-based practices, sustainability practices, partnership development, quality improvement, etc., and access to resources, such as identified funders. Create a vehicle to streamline school-based health training and technical assistance, as well as, promote consistency and quality in the development of telehealth programs, including SBTH, SBHCs, and school nurse-based programs. The governing entity may also serve as a connector of schools to qualified telehealth providers (for example, by facilitating a statewide SBTH procurement), as well as support (i.e., offer technical assistance), monitor, and advise practices for implementation and billing of telehealth services. Consider models from other states, like South Carolina (e.g., South Carolina Telehealth Alliance) to develop and implement an infrastructure in Georgia that supports consistent and quality telehealth implementation.

- **Increase opportunities for telehealth programs to be implemented within a comprehensive health system, including state funding for comprehensive school-based programs throughout the state.** Comprehensive health care is the prevention and management of physical and emotional health problems and/or conditions of a patient over time.^[28] A SBTH program within a comprehensive SBHC serves as the ideal model for sustaining comprehensive health care services to children and their families. However, expanding FQHCs and increasing support for local hospital-school partnerships can help facilitate the implementation of successful SBTH programs. SBTH programs are best supported within a comprehensive system because it ensures access to providers and specialists and increases the likelihood of sustaining the effort. Large health care organizations often have access to funding streams for school-based health services that a stand-alone SBTH program would not. Further, these entities have an established network of

In 2019 there were
217,000
uninsured children in
Georgia.

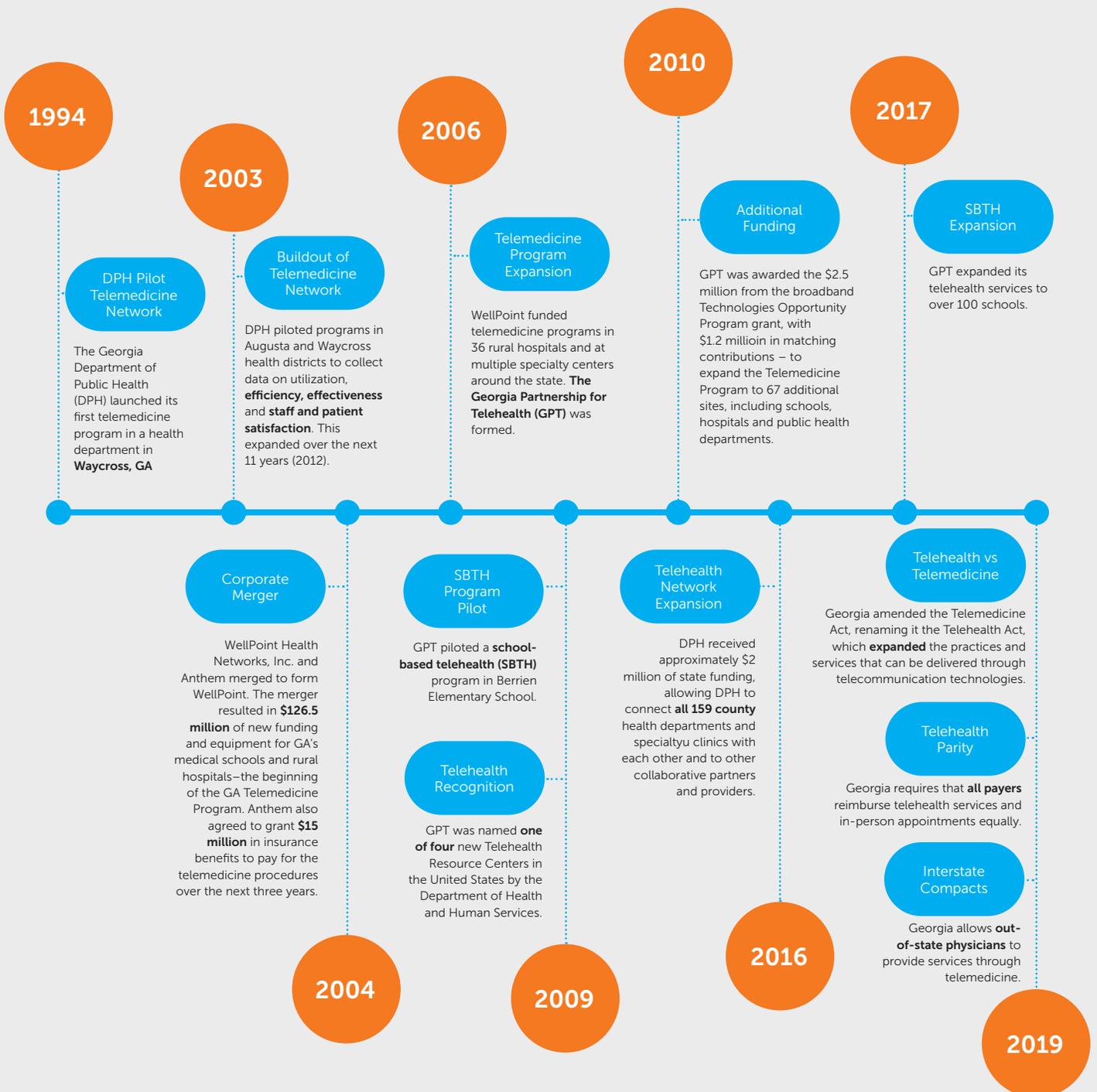
providers readily available to serve the health care needs in the school and/or community.

- **(Medicaid) Expand health care locations able to conduct presumptive eligibility to include SBHCs or SBTH programs.** In 2019, there were 217,000 uninsured children in Georgia, a majority of which were eligible, but not enrolled in Medicaid / PeachCare for Kids.^[28] Allowing SBHCs to conduct presumptive eligibility would facilitate rapid, initial enrollment of children who are eligible but not yet enrolled in Medicaid, based on income and household size as reported by the child's parent / caregiver.^[29] In addition to SBHCs rapidly enrolling children in Medicaid initially, SBHC administrators could also serve as a trusted source to assist families in completing the full Medicaid application process to ensure ongoing enrollment. This could not only help to reduce the number of uninsured children in the state, but also minimize the financial burden on school-based health programs to cover the cost of care for services rendered to uninsured children.

The aforementioned recommendations are by no means comprehensive but are proposed to offer strategic practice and policy considerations that could significantly increase the implementation of successful SBTH programs. In doing so, Georgia will greatly improve children and families' access to care, health outcomes, and students' academic productivity and success.

Appendix A

GEORGIA'S TELEHEALTH JOURNEY



Appendix B

Research Methods

To identify the effective processes, potential barriers, and lessons learned, Voices conducted a literature review coupled with a case study in North Georgia and an Atlanta-area site.

The literature review examined SBTH programs in both rural and urban settings in the United States, and examined the four key capacities needed to implement an effective SBTH:

1. Stakeholder engagement — school and school district buy-in, parent support and buy-in
2. Technical capacity — equipment, technology, ongoing support delivery
3. Human resources and administrative capacity — personnel, skillsets, key partners and management practices, space, and service delivery
4. Financial capacity — billing and financial sustainability

Articles were identified using a keyword search, specifically SBTH and school-based telemedicine. The available literature specific to SBTH programs was limited. Expansion of the search terminology to include telemedicine, telehealth, and school-based health led to articles about telemedicine programs outside of the school setting and

the infrastructure of SBHCs. A total of 16 sources, including peer-reviewed articles and state department reports, were identified and reviewed — yielding several effective practices and processes for implementing SBTH programs. Studies with larger sample sizes were assessed and analyzed, and all but one of the studies included in the review were conducted within the past three years.

To gather information on the successes, challenges, and lessons learned from implementing SBTH programs, Voices administered surveys and conducted interviews and focus groups with SBTH program stakeholders including key school personnel (e.g., the school nurse and principal), parents of children who enrolled in or used the services, and health care personnel responsible for presenting patients and providing clinical care. To gain additional insight into effective practices related to the procurement of equipment and resources such as connections to participating providers, billing, and program sustainability, Voices also conducted interviews with a regional insurance provider responsible for providing the equipment and training at one site and a statewide telehealth technical assistance provider with extensive knowledge of SBTH programs. The table below depicts the type and number of participants included in the process evaluation by site and overall.

Method	Site A – Rural Type/ No. of Participants		Site B – Atlanta Type/ No. of Participants		Other Stakeholders		Total Number
SURVEY	NA	NA	Parents	32	NA	NA	32
FOCUS GROUPS	NA	NA	Parents	3	NA	NA	3
INTERVIEWS	Provider, presenters, school personnel	5	School personnel, parents	4	Insurance company telehealth expert	2	11

Appendix C

A 12-step process for enrolling children in telemedicine: ^[14]

- STEP 1:** School referral site, based on protocols, decides a consultation is needed.
- STEP 2:** School site confirms consent and attempts to notify parent about need for consultation or referral.
- STEP 3:** School site calls consultant site at agreed times to establish consultant availability.
- STEP 4:** School site faxes encounter form with nurse portion completed to consultant.
- STEP 5:** School site initiates telemedicine phone connection with consultant.
- STEP 6:** Consultation proceeds with interview and telemedicine images as needed.
- STEP 7:** If electronic stethoscope needed, consultant will initiate phone connection.
- STEP 8:** After completion of consultation, consultant will fax back completed encounter form.
- STEP 9:** School project nurse will implement action plan according to the encounter form plan.
- STEP 10:** Both sites will file encounter form in appropriate files.
- STEP 11:** School site will notify parents if they are not present for the consultation.
- STEP 12:** School site and consultant complete evaluation forms.

Appendix D

Procedure for entry into the telemedicine program: ^[20]

1. Student presents to the school nurse with symptoms/complaints or parent, teacher, or counselor refers the student to the public health nurse for preventive services or a behavioral health concern
2. Public health nurse performs an assessment to determine if an appointment with a physician is indicated
3. Public health nurse checks to see if the student is enrolled in the telemedicine program
4. If the student is not enrolled in the telemedicine program, the public health nurse should:
 - a. call parent/guardians and attempt to obtain consent/necessary paperwork for enrollment
5. If student is enrolled in the telemedicine program, the public health nurse should:
 - a. Notify the parent/guardian and verify if they would like the student to be scheduled with the telemedicine physician
 - b. If yes, then proceed to contact the network physician providing service
6. The network physician providing service will work with the public health nurse to schedule the appointment
7. Public health nurse will notify the parent/guardian of the appointment time
8. Public health nurse will fax the enrollment packet and current medical assessment to the network physician providing service
9. Public health nurse follows telemedicine guidelines for presentation and appointment
10. Public health nurse documents the appointment on a monthly telemedicine log

Appendix E

Example of an informed consent form that can be used to assist in enrolling children into a SBTH program: ^[20]

School Based Health Center Procedure Manual Onsite and Telemedicine Services PRIVACY PRACTICE CONSENT FORM

(Consent to treatment, transportation, and authorization to release information and assignment of benefits)

The Lamar County Board of Education has joined in partnership with McIntosh Trail Community Service Board to develop this school-based collaborative healthcare center.

The primary focus of the center is to provide quality, accessible health care to the children of Lamar County Schools, in order to have a positive impact on the children's health, school attendance, and academic performance.

In order for your child to receive services at the health center, this consent form must be completed and proper documentation of insurance obtained.

I hereby voluntarily give my consent for _____ to receive health services, including telemedicine services, at the Lamar County School Based Health Clinic. I further authorize any physician or physician-designated health professional working for the clinic to provide such medical tests, procedures, and treatments as are reasonably necessary or advisable for the medical evaluation and management of their health care.

I authorize release of information from medical records of the family doctor or primary care provider designated by me whenever necessary for my child's care including referrals and/or emergency services.

I authorize release of written and verbal information pertinent to my child's health care from the Lamar County School staff to the Lamar County School Based Health Clinic whenever necessary for my care.

I authorize Lamar County Public Health to release information regarding treatment to third party payers such as Medicaid or other insurers for the purposes of billing or for any other reason in accordance with acceptable medical practice pursuant to the law.

Medicaid and other insurers will be billed for services rendered.

If my protected health information includes any records containing information related to the treatment of any infectious disease (including AIDS), drug or alcohol abuse and/or mental illness, I hereby give consent to the disclosure of this information by these clinics only as reasonably necessary to accomplish the purposes described above, and I waive any privileges with regard to such disclosure. I also understand that I can withdraw my consent for disclosure of such information at any time except to the extent action has been taken in reliance upon such consent.

I understand that my signing this consent allows the physicians and professionals at Lamar County School Based Health Clinic to provide health, and telemedicine, services, I also understand that I have the right to withdraw this consent at any time upon written notice to the clinic director.

I have read and understand the above information and give permission for treatment at The Lamar County School Based Health Clinic. I also understand that I may obtain further information regarding the health services offered by the clinic by contacting the clinic at (770) 358-1483.

NAME OF PARENT OR LEGAL GUARDIAN

SIGNATURE OF PARENT OR LEGAL GUARDIAN

DATE

Appendix F

Example of a nurse protocol sheet used to identify earache symptoms:^[19]

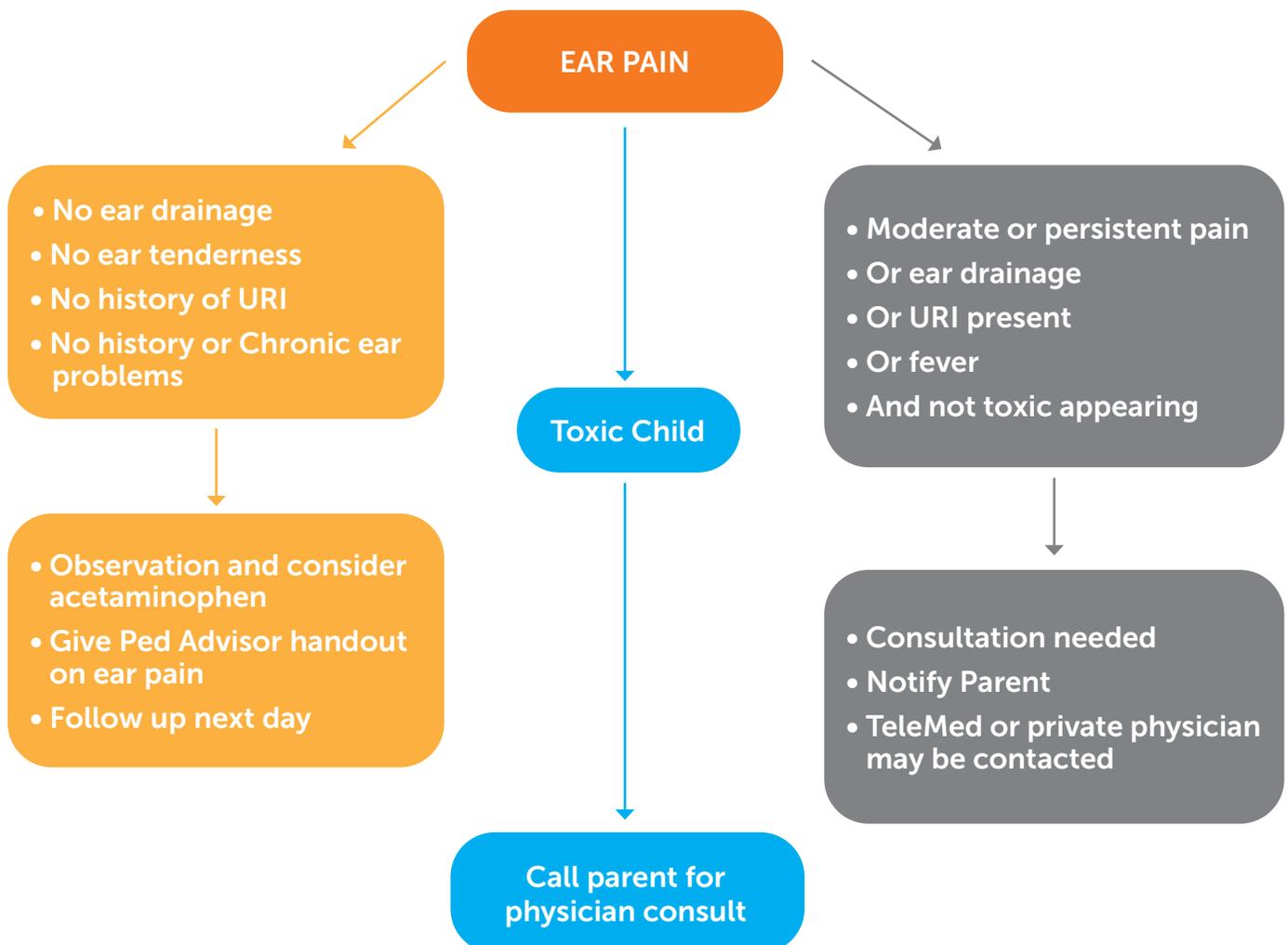
TELEMEDICINE NURSE PROTOCOL

Description: Acute otitis media is usually preceded by URI symptoms of at least 2 days duration. Earaches can be due to an external otitis, particularly in the summer. Other sources of ear pain can be from teeth sources, cervical lymph nodes, sore throat, or the TM joint. Fever ear drainage, or decreased hearing may or may not be present.

Physical Findings:

- Pain with movement of external ear or tragus (external otitis)
- Tenderness underneath the external ear (Lymphadenitis)
- Ear drainage
- Tympanic Membrane opaque, red, decreased mobility

Management:



Appendix G

An example of how a school site and health care practitioner may work together to facilitate a telemedicine visit:^[20]

ACUTE CARE FLOW CHART



Appendix H

TECHNOLOGY REQUIREMENTS

The American Academy of Pediatrics provides the following technology recommendations:^[15]

“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. 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.”

An important consideration is the interoperability of the school-based technology with external telemedicine services and technologies.^[15]

SBTH programs should be able to provide point-to-point connectivity between the originating and distant sites. The majority of programs rely on:

- High-speed internet connection to support telemedicine interactions; or
- An integrated services digital network connection (transmission of information via phone lines) – when high-speed is not available.

To support real-time interactive telemedicine services, the suggested minimum speed is a “384-kilobits-per-second bidirectional connection between the sites.”^[15]

A common method utilized to facilitate the privacy of the internet connection used for telehealth/telemedicine interactions are virtual private network tunnels (commonly referred to as VPNs) – an encrypted connection between the device (tablet, computer, phone) and the internet, to ensure no one is able to intercept, monitor, or alter communications.^[15]

Appendix I

SBTH Program Evaluation

While the literature around evaluating SBTH programs is limited, measuring the success of the program can be beneficial in procuring funding and demonstrating the value of the program. Many programs measure their success using available data, including the number of telehealth visits, number of student absences (before and after program implementation), and parent/caregiver attitudes and satisfaction with the program. The School-Based Health Alliance could also be a reliable source in identifying measures to assess overall impact. The School-Based Health Alliance, in partnership with state affiliates and subject matter experts, identified and outlined core competencies that every school-based health program can use as a framework in supporting student wellness.^[30] The competencies include:

- **Access** — ensure that students are able access and utilize health care services needed
 - Measure examples include medication adherence and reduction in ER visits, hospital readmissions, and office or urgent care visits
- **Student Focus** — program services are organized around health challenges that impede child well-being and academic achievement
 - Measure examples include return-to-class rate and absenteeism
- **School Integration** — align program services with established school climate and support the school’s mission of student success
- **Accountability** — compare program performance against accepted standards of quality of care
 - Measure examples include medication adherence and reductions in ER visits, hospital readmissions, and absenteeism — similar measures to Access and Student Focus
- **School Wellness** — promote a culture of health
 - Measure examples include student weight and diabetes rates
- **Systems Coordination** — reduce fragmentation of care by communicating with relevant entities in systems of care, including exchange of health information and engaging parents when appropriate
 - Measure examples include tracking communication with primary care providers
- **Sustainability** — Employ administrative and management practices that ensure long-term program implementation
 - Measure examples include established partnerships and costs and savings

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