

School-Based Telehealth: The Doctor Is IN

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Introduction

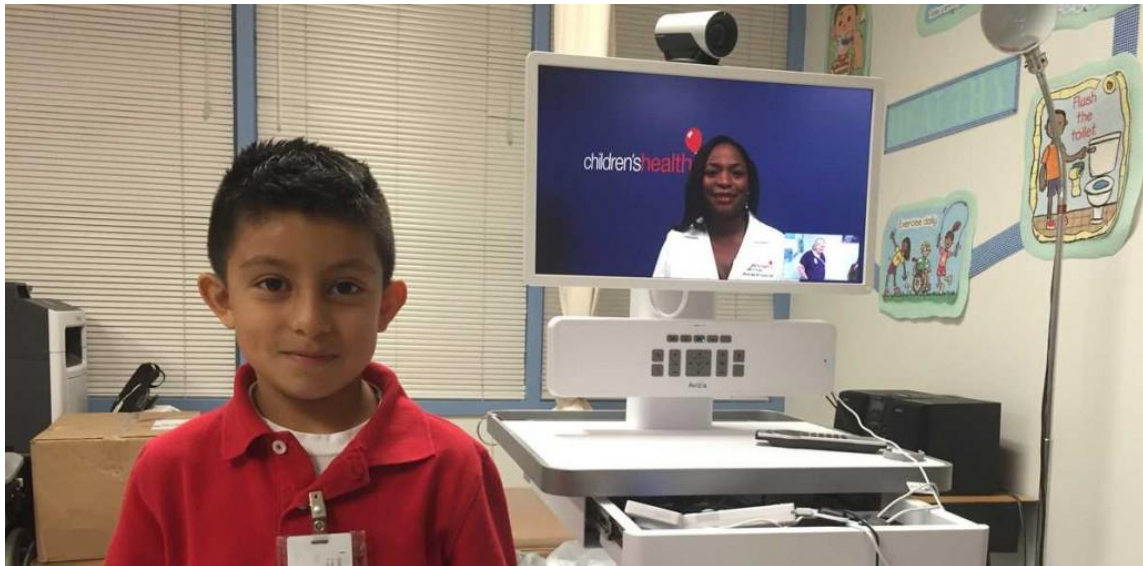
Recognizing the symbiotic relationship between learning and health, Children’s HealthSM in Dallas has implemented and scaled the largest and fastest-growing school-based telehealth network in America.

After nearly 4,000 virtual visits, the Children’s Health school-based telehealth network has helped prevent as many as 2,600 primary care referrals to local emergency departments and urgent care centers.¹

“Our motivation is to improve access to convenient primary care for vulnerable children — thereby improving their overall health and well-being, while reducing emergency room visits for non-emergent conditions, decreasing absenteeism for health-related reasons and keeping busy parents at work,” says Peter Roberts, President, Population Health and Insurance Services, Children’s Health.

“Our motivation is to improve access to convenient primary care for vulnerable children.”

— Peter Roberts,
President, Population
Health and Insurance
Services, Children’s Health



This white paper explores the early success of the Children’s Health school-based telehealth* primary care network that is currently scaling in nearly 100 schools across North Texas, one of the largest and most underserved regions in the nation.²

***Terminology:** For purposes of this paper, the term “telehealth” will be used broadly to describe the delivery of health care services, education and information via telecommunications technology, including

Open Wide: Say “Ahhh”

While most second graders at Gilbert Elementary in Irving, Texas, are sitting at lunch tables, stuffing slices of cheese pizza in their mouths, Diego Montealvo is standing in the nurse's office, opening wide for a small camera.

"Ahhhh," he says, as school nurse Becky Oostveen, R.N., aims a digital otoscope at his tongue. Diego is staring up at Dr. Stormee Williams, who appears on a big screen above a rolling cart. But Dr. Williams isn't at the school in Irving — she is at Children's Health in Dallas. She's looking at Diego through her own screen, and she guides Nurse Becky as she examines him with the medical instruments.

Diego has a pain in his ear. Through remote telehealth technology, Diego is now virtually connected to Dr. Williams — from school. She diagnoses him with an ear infection. Through the secure, electronic medical record connection, she selects the drugstore listed in his file and prescribes an antibiotic. Nurse Becky gives Diego a hug and sends him back to class.

Later, Diego's mom, Isabel Montealvo, said Diego's virtual doctor's appointment at school saved her time and money.

"After I left work, all I had to do was pick up the prescription from the pharmacy because they sent it right over," she says.³

Nurse Becky says having telehealth at school is not only a big win for Diego and his mom but also for her, the teachers and the administration at Gilbert Elementary.

"It is just a great blessing for our kids to have access to such high quality pediatric care right here at school — literally down the hall from their classrooms," says Nurse Becky.

She also says that most of their Gilbert Elementary parents are working and may not have the time or resources to get their kids to the doctor when they need it, often resulting in exhausting late-night trips to inconvenient hospital emergency departments for care.

"With telehealth, I feel empowered to work and learn alongside the Children's Health pediatricians and nurse practitioners. Likewise, our families feel more in control of their lives and are thankful that their kids are getting such first-class health services at school. It's a win/win for everyone," Nurse Becky says.

BACKGROUND

Building New Capabilities

With a mission to make life better for children like Diego, Children's Health is one of the nation's largest academic pediatric systems. Established in 1913, it is affiliated with UT Southwestern Medical Center and is valued on a local, regional and national level as a provider of choice among physicians, insurance plans, employers and families.

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— Becky Oostveen,
R.N., Gilbert Elementary
School Nurse, Irving, Texas

In 2011, with reform mandates for a value-based payment system on the horizon, Children’s Health began to build a range of new capabilities to support a population health model within its traditional acute care system.

As we began our journey toward system transformation, we wanted to learn more about the life circumstances of the families we serve. We began a four-year process of deep listening with families to understand their challenges, opportunities and aspirations, as well as their beliefs and attitudes about health and well-being.⁴

In listening to our North Texas families, they validated our historic understanding that, because of lack of easy access to regular pediatric primary care, many were using hospital emergency departments because they offered the only convenient and trustworthy options for care — not only after hours, but also during daytime hours as well.

Addressing The Access Issue

These conversations added renewed urgency to our knowledge that a limited and mal-distributed supply of primary care health providers keeps health and wellness out of reach for far too many children, particularly among vulnerable populations.

Families frequently expressed concerns about not being able to find providers in the Dallas area that would take Medicaid or CHIP as a means of reimbursement.⁴

Insurance Coverage for Vulnerable Populations is not a Silver Bullet

Increasing insurance coverage is necessary but not sufficient to solving the access issue, especially among vulnerable populations struggling with poverty. The number of children enrolled in CHIP and Medicaid has increased 44% since 2009, reducing the number of children without health insurance from almost 23% in 2009 to 15.2% in 2013.⁵

However, the number of pediatricians and family practitioners accepting Medicaid and CHIP has not kept pace. Only 31% of physicians statewide accept these insurances, and only 21% accept CHIP in the 6-county Children’s Health primary service area.⁵ For many medical providers, this decision is primarily a financial one, since both reimburse medical providers at a low rate, while requiring staff-intensive documentation and government audits.⁵

A limited and mal-distributed supply of primary care health providers keeps health and wellness out of reach for far too many children.

Exploring New Opportunities with Old Friends

As we continued to focus on access issues within the context of our rapidly emerging population health model, and recognizing our own limitations, we committed to reaching further into communities to leverage trusted organizations and people at the neighborhood level to forge strong, sustainable connections.

In considering partners, we looked at schools as highly valued community assets, offering efficient systems for reaching children to provide health services and programs — as approximately 95% of all U.S. children attend school.⁶

We began to formulate new ideas to strengthen this longstanding collaboration, inspired by the Whole School, Whole Child, Whole Community philosophy, which responds to the call for greater alignment, integration, and collaboration between education and health to improve each child's cognitive, physical, social and emotional development.⁶

We were further motivated by research that has long validated the fact that closely integrated health and education resources are an untapped opportunity for raising academic achievement and improving learning.⁶

Schoolhouse Call: How it Works

Our school nurses are equipped with secure, encrypted telemedicine technology*, including high-definition, real-time videoconferencing and state-of-the-art digital scopes — connecting their students directly to our health care professionals for primary care issues.

Strep and flu rapid tests are also available to assist with diagnostics alongside the virtual visit. Through extended mobile technology, we also offer after-hours connections for parents to discuss their child's virtual visit summary, prescriptions and any other requested information.

The pediatric provider on the other side of the monitor is a staff pediatrician or nurse practitioner at Children's Health Pediatric Group (CHPG), our extensive regional primary care/medical home network. Not only has this model tapped quickly into our system's primary care clinical staff, it has provided a natural path to community primary care providers — establishing medical homes for school children, which is an ultimate objective of our program.

“It is time to truly align the sectors and place the child at the center. Health and Education serve the same students...we must do more to work together.”⁵

— Wayne H. Giles, Director,
Division of Population Health,
National Center for Chronic
Disease and Health Promotion,
CDC

* Powered by Children's Health is a fee-based technical solution offered to help health systems and providers build and implement a telehealth network. It is designed to decrease implementation time and increase school utilization.



Confronting Political and Economic Challenges

We were awarded \$2.9 million in start-up funding for the first two years of the school telehealth initiative through the Delivery Reform Incentive Payment program (DSRIP), a state Medicaid waiver that encourages innovation. But DSRIP is set to expire in 2017 and is subject to the winds of politics.

With the waiver in doubt, we had to find a way to sustain the program financially. In 2014, as school relationships were being established and the technology was being refined, the Children's Health government relations team began its push to obtain reimbursement for telehealth visits in schools. They succeeded in getting support from strong community agencies like the United Way and the Health and Wellness Alliance for Children, a coalition of more than 75 cross-sector organizations. They also forged consensus from powerful and influential hospital and physician provider groups such as the Texas Medical Association, the Texas Pediatric Society, the Texas Hospital Association, the Texas Conservative Coalition and the Texas Public Policy Fund — organizations that are not always politically aligned. Driven by the support of these leading groups, the team began a year of intense educational efforts with Texas lawmakers on both sides of the aisle. This effort culminated in sponsored House and Senate legislative bills seeking reimbursement for school telehealth visits on par with visits to a physician's office.

This significant legislative victory means that Children's Health can be paid for virtual school visits by CHIP, Medicaid or private insurance.

In 2015, the Texas State Legislature approved the school telehealth bill by a combined vote of 174-1. This significant legislative victory means that Children's Health can be paid for virtual school visits by CHIP, Medicaid or private insurance.

Knocking Down Regulatory Barriers

Along with reimbursement concerns, some of the first and most ominous barriers we faced involved existing health care regulations and their potential impact on our vision for school-based telehealth services.

As all health care providers know, innovation can often be hindered or stopped altogether under the weight of regulatory oversight and entrenched bureaucratic practices.

Fortunately in our case, we were fueled by the cultural wave of technology and a fierce determination by all stakeholders to provide this service. With careful diligence, we were able to effectively address the most significant regulatory barriers and concerns ranging from licensure, credentialing/privileging, malpractice, privacy and fraud, and abuse issues (see Appendix A).

Encouraging Results

Today, amid rapid telehealth network growth, nearly 4,000 school-based virtual consultations have taken place in just our first two years of service. Now school kids are back in class in minutes instead of hours or days. School nurses report that 66% of these children would otherwise have visited emergency rooms or urgent care centers, costing 84% (\$863) more than the telehealth visit on their school campus.

And the economic news is positive for our participating school district partners too. The Texas state school funding formula factors in average daily attendance, a policy that means absenteeism due to simple childhood health complaints can cost school districts real dollars. The Lancaster Independent School District (LISD) was an early adopter of our telehealth network — and is an early winner. For school years 2014 and 2015, the LISD absenteeism rate improved by 2%, resulting in a \$500,000 increase in county funding for the district (see Appendix B).

We hope our school telehealth program will become a best-practice model for increasing pediatric access throughout the United States. According to Sandy Ahn, a health policy researcher at the Georgetown University Center of Health Insurance Reforms, the Children's Health program is effectively showing how school telehealth can uniquely reach underserved areas and improve access to care in a cost-effective way.⁷

Benefitting All Stakeholders

Parents are expressing appreciation for being able to stay at work, knowing that their children are in the hands of trusted school nurses in partnership with pediatric experts.

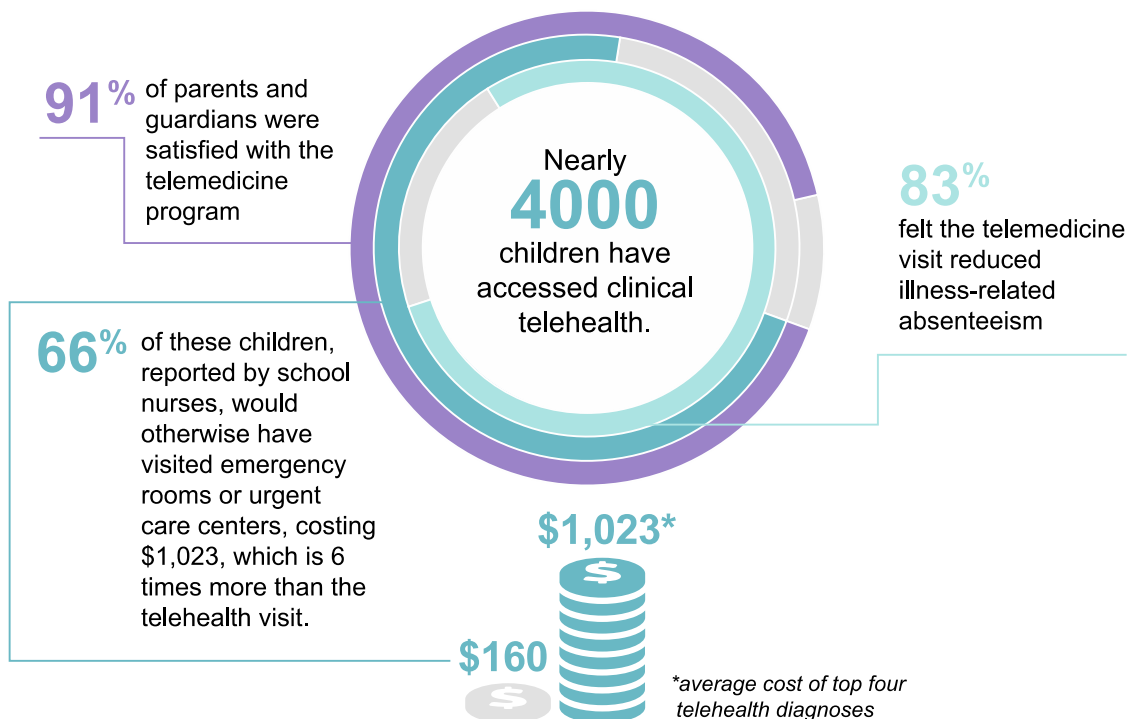
The metrics are clear. Since we began telehealth in 2014, our absenteeism rate has dropped 2%, resulting in \$500,000 of increased funding for our school district. Most importantly, our kids are benefitting from more classroom time and better health.

— Dr. Michael McFarland,
Superintendent, Lancaster Independent
School District

Teachers and school administrators are delighted that their students are getting more learning time, are not absent from school as much, and are experiencing less anxiety by being able to stay with the school nurse during a virtual visit to the doctor — alleviating the usual stress of such visits.

School nurses are happy that their most vulnerable kids, especially those with chronic conditions like asthma, are staying healthier through better education and management. They are also pleased that children who may not otherwise get to a doctor at all, are now receiving expert pediatric care, as well as referrals to primary care medical homes. School nurses are further reporting a high degree of professional satisfaction through working with the medical professionals at Children’s Health and learning from their daily interactions and ongoing clinical education opportunities.

Positive Evaluations from School Nurses and Parents



Lessons Learned

- Telehealth providers need to be prepared for rapid growth of a school-based telehealth program. Our experience has been that school administrators, nurses and parents are immediately interested and enthusiastic to participate.
- For planning purposes, while all school districts, large and small, urban and rural, were interested, we found that it was quicker and easier to launch with smaller, suburban school districts, as they had fewer bureaucratic channels to navigate. Second, successful track records with smaller districts were influential with the largest school districts.
- While parents are universally eager to participate, obtaining formal registration and permission is a multi-faceted challenge with which health care providers are not experienced. School systems themselves have the experience, credibility, parental trust and communication channels to fill this requirement. The solution, which was implemented in most of our schools in Fall 2016, is for telehealth registration to be included in the official online school enrollment period at the beginning of each school year.
- Regulatory and policy changes are very challenging and therefore require a coalition of diverse stakeholders working over an extended period of time to achieve successful change.
- Funding sources generally require a mix of public and private start-up funding for the capital investment and 12 to 18 months of operating funding, during which time third-party payer reimbursement is being pursued.
- It isn't clear to what degree telehealth services in schools can foster longer-term medical home relationships. Although all children seen in the program receive a referral to a medical home (if they do not already have one), it has been challenging to track the ultimate disposition of the referrals. Additional research is necessary.
- We believe that our school-based telehealth services are advancing health equity. The service offers one step in the path toward the ideal of every child having access to high-quality primary urgent care outside of the emergency department.

“We look at our map of where kids are coming to the emergency department for non-emergent issues and where we can ultimately step in to fill that gap for the kids, the families and the schools.”

— Dr. Stormee Williams,
Medical Director, School-based
Telehealth, Children's Health

Mapping the Future

Our school-based telehealth team will continue to carefully map its growth. We will focus on school districts that serve vulnerable Dallas area populations located in health deserts, such as our most recent contract with the Dallas Independent School District, one of the largest urban school districts in America (see Appendix C). These school ZIP codes also correlate with high volumes of preventable, non-emergent visits to the Children's Health emergency department (see Appendix D).

We believe the future of school-based telehealth is bright. At Children's Health, incorporating coordinated school health programs with our comprehensive health system for children is showing an extremely positive trajectory. We are continuing to learn from the frontlines about how to maximize this service for the health and well-being of thousands of school children.

“This is a great model because it's exactly the purpose of telehealth — to increase access to local providers. This could be a big step in gaining wider acceptance.”⁷

— Sandy Ahn, Associate Research Professor, Center on Health Insurance Reforms, Georgetown University Health Policy Institute.

End Notes

1. *Early Impact of School Telehealth at Children's Health*, Sarmistha Sen, MS, MHA, and Brian Robertson, PhD, MPH. Children's Health Virtual Health Leadership Meeting (internal presentation), September 1, 2016.
2. *Texas' Child Population: More Kids, More Diversity, More Responsibility*, Frances Deviney, Center for Public Policy Priorities, May 2011, September 4, 2012. http://www.cppp.org/les/10/TexasChildPopulation_paper.pdf.
3. *Digital Diagnosis: Telemedicine Puts Doctors in Schools*, <http://www.newsworks.org/index.php/local/the-pulse/91502-digital-diagnosis-telemedicine-puts-doctors-in-schools>.
4. *Laying the Foundation: Paving the Path to Wellness*, Business Innovation Factory and Children's Health, 2013, <http://alliance.businessinnovationfactory.com/files/hwac-laying-the-foundation.pdf>.
5. *Whole School, Whole Community, Whole Child: A Collaborative Approach to Learning and Health*, www.ascd.org, wholechild@ascd.org, 2014.
6. *2015 Beyond ABC: Assessing the Well-Being of Children in Dallas County and the North Texas Corridor*, Children's Health. SM Retrieved from Texas Health and Human Services Commission (2015). *Texas Medicaid and CHIP in Perspective (Tenth Edition)*.: <http://www.hhsc.state.tx.us/Medicaid/about/PB/PinkBook.pdf>.
7. Texas Health and Human Services Commission. (2014). *Can I Get it?* Retrieved from CHIP | Children's Medicaid: <https://chipmedicaid.org/en/Can-I-Get-It>.

Appendix A

Telehealth Regulatory Check List

Health Professional Licensure — Always check with your state medical licensing board to determine specific regulations and requirements.

The Federation of State of Medical Boards is currently moving toward licensure portability, but most states today require that providers and patients are located in the same state, and that providers are licensed in that state. Many states further dictate which health professionals can deliver care through telemedicine.

Credentialing and Privileging — Determine if any additional credentialing or privileging should be completed prior to providing telemedicine services to a traditional school health clinic.

Credentialing for school-based telemedicine differs somewhat from hospital to hospital consults — as the school does not require a privileging standard. The organization that is providing the service to the school should have the provider qualifications evaluated and verified like any traditional provider.

Online Prescribing — Make sure that a physician/patient relationship is established (either through telehealth or otherwise) prior to prescribing.

Each state differs in this area; it is important that your telemedicine encounter is considered an established physician-patient relationship. In Texas, a school is an approved location for establishing a relationship if there is a telemedicine presenter, assessment of history and a physical exam is performed. E-prescribing should not be considered as traditional online prescribing as it is secure electronic submission of a prescription to a pharmacy through an Electronic Medical Record. States maintain a significant amount of control over online or Internet prescribing. Check to make sure state is not a state that prohibits prescribing if an Internet-only interaction has occurred.

Medical Malpractice and Professional Liability Insurance — It is imperative to review malpractice insurance for telemedicine coverage and/or limitations.

Each provider should review the policy for telemedicine requirements or limitations for such services. In addition, some malpractice providers are only covered for telemedicine services if it occurs within the state the policy is issued. If you are providing care in a different state than the issuing policy state, review to determine if you are covered.

Privacy and Security — The provider and school should take measures to ensure that the policies and procedures address the privacy risks and compliance challenges when delivering care from a distance.

A school telehealth program faces many of the issues of traditional telemedicine programs. In many state statutes and codes, telemedicine documentation must be retained in the medical record and be comparable to an in-person visit. Ensure that there

are monitoring measures in place in your program, allowing compliance experts to assist in the design of your telemedicine program.

Fraud and Abuse — The Office of the Inspector General (OIG) has alerted providers to consider payment models and terms and conditions of directorships when related to telemedicine, to ensure they are not violating any Federal anti-kickback statutes

A common theme about telehealth is the convenience of the service. This convenience is motivating a growing number of providers to incorporate telehealth into their practices. The OIG offers Advisory opinions to support these individual providers.

Appendix B

SPOTLIGHT: Lancaster Independent School District (LISD)

Schools: 12
Students: 6,820
District Rank, by Size (1) : 138th in Texas

Telehealth Service Launch: Fall 2014

LISD Schools In Telehealth Network: 9
Students: 6491
Selection Criteria*

- Situated in underserved areas “health deserts”
- A mix of elementary, middle and high schools



A suburban school district located just south of downtown Dallas, the LISD has a largely African American and Hispanic student population. More than 25% of Lancaster residents are living below the poverty level (2), with most of its schools located in areas considered health care deserts.

District Superintendent Dr. Michael McFarland and his progressive school board quickly caught the vision for school-based telehealth when presented by Children’s Health and Dallas Mayor Mike Rawlings.

“This opportunity was perfect for us for us because our kids have poor access to good, preventive health care,” says McFarland.

“When they do need sick care, they often have to go to emergency rooms. With no primary care, follow-up is a big challenge and they keep getting sick, which can be a significant barrier to classroom learning time and school attendance,” says McFarland.

In Texas, the state school funding formula factors in average daily attendance, a policy that means health-related absenteeism can cost school district real dollars. Yet, as an early adopter of school-based telehealth services, the LISD is an early winner. For school years 2014 and 2015, the LISD absenteeism rate improved by 2%, resulting in a \$500,000 increase in county funding for the district. This important statistic correlates directly with the introduction of telehealth virtual visits in the Fall 2014 semester.

McFarland is convinced, based on his experience in the Lancaster school district, that school-based telehealth is a silver bullet solution for improved health and well-being for many underserved children and families — and for the economic well-being of the school district itself.

“The metrics are clear,” he says. “I know our kids would be missing school due to minor illnesses, and now they don’t have to anymore. And on top of that, their parents don’t have to make the tough choice to miss work to get their kids to the doctor. It’s a no-brainer.”

End Notes

1. <http://www.publicschoolreview.com/lancaster-high-school-profile/75134>
2. <http://www.city-data.com/poverty/poverty-Lancaster-Texas.html>

Appendix C

SPOTLIGHT: Dallas Independent School District (DISD)

Schools: 227
Students: 160,000
District Rank, by Size: Second largest in Texas, 12th in United States



Telehealth Service Launch: Fall 2016

DISD Schools In Launch Phase: 18

Students: 13,235

Selection Criteria*

- High number of overall school nurse visits
- High number of asthma patients
- Situated in underserved areas “health deserts”
- Equally distributed across all 9 regions of the district
- Correlates to ZIP codes in the Mayor’s Neighbor Up campaign
- A mix of elementary, middle and high schools

As a large, urban district, DISD has a diverse student population, with many of its schools located in areas considered health care deserts.

“Access to primary and acute care is imperative, but often difficult for too many of our kids in the DISD. Since school is where kids spend the majority of their days, we have high hopes that our telehealth partnership with Children’s Health will, over time, bridge the access to care gap,” says Jennifer Finley, R.N., Director of Health Services at DISD.

Strong advocates and participants in the CDC Whole School, Whole Community, Whole Child initiative, DISD administrators believe that implementation of telehealth in schools provides the perfect opportunity to provide the link between academics and health care. She also pointed out that cultural understanding and sensitivity was a critical component of the telehealth program — praising Children’s Health for providing a dedicated bilingual coordinator for the program to help support the 70.2% of the DISD student population that is Hispanic.

“I picture this being a great success. I predict that as a result of our telehealth service with Children’s Health, we will see reduced absenteeism related to acute and chronic illnesses, improved overall student academics and decreased emergency department utilization rates,” says Finley.

*determined by DISD

Appendix D

2016 Telehealth Sites Correlating to ZIP Code Emergency Department Utilization

