

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
HEALTH RESOURCES AND SERVICES ADMINISTRATION**

**REPORT TO THE HOUSE AND SENATE COMMITTEES ON APPROPRIATIONS ON
THE TELEHEALTH NETWORK GRANT PROGRAM**

FEDERAL OFFICE OF RURAL HEALTH POLICY

A handwritten signature in black ink, reading "Thomas J. Engels". The signature is written in a cursive style with a horizontal line underneath it.

Thomas J. Engels
Administrator

Executive Summary

As requested by House Report 116-62, “Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriation Bill, 2020, Report of the Committee on Appropriations on H.R. 1865,” this document provides an update on the school-based clinical cohort. In the context of appropriations under the Telehealth line item, the House Report states,

The Office for the Advancement of Telehealth (OAT) is instructed to consult with the Bureau of Primary Health Care and develop a plan for the dissemination of the work of the school-based services clinical cohort, especially as it relates to providing assessments and referrals for health, mental health, or substance use disorder services to students who may struggle with behavioral or mental health issues. HRSA is instructed to provide a report on the OAT plan, including any findings from the school-based clinical cohort, to the Committees within 180 days of enactment of this Act.

HRSA designed this report to apprise the House and Senate Committees on Appropriations about the Telehealth Network Grant Program (TNGP) efforts to enhance school-based telehealth and summarize preliminary data on school-based telehealth services focused on behavioral health. Authorized by the Health Care Safety Net Amendments of 2002, Public Law (P.L.) 107-251, Section 330I of the Telehealth Network Grant Program provides incentive grants that demonstrate how telehealth can: (a) expand access to, coordinate, and improve the quality of health care services; (b) improve and expand the training of health care providers; and (c) expand and improve the quality of health information available to health care providers, and patients and their families, for decision-making. Since its beginning, the program has demonstrated that telehealth is effective in improving access to care and improving health outcomes for adult populations but “little is known about the effectiveness of telehealth programs specifically designed for children with chronic diseases.”¹ The current school-based clinical TNGP cohort was selected to examine that issue.

¹ Bian, John, Kathryn K. Cristaldi, Andrea P. Summer, Zemin Su, Justin Marsden, Patrick D. Mauldin, and James T. McElligott. 2019. “Association of a School-Based, Asthma-Focused Telehealth Program With Emergency Department Visits Among Children Enrolled in South Carolina Medicaid.” *Journal of American Medical Association Pediatrics*. 173, no. 11 (November): 1041-1048. <https://doi.org/10.1001/jamapediatrics.2019.3073>.

Table of Contents

Executive Summary	2
Table of Contents	3
I. Introduction	4
II. Overview	5
Funding	6
Composition of the Telehealth Network	6
Data and Methods	6
School Sites	7
III. Improving Access	8
IV. Behavioral Health	11
Rural Telehealth Research Center findings	13
Savings on Patient Travel	15
V. Conclusion	16
Sustainability	17
Dissemination Plan	17
VI. Appendices	18
Appendix A: Performance Improvement Measurement System	18
Appendix B: Recipient Names, City, and State	22
Appendix C: Rural Telehealth Research Center – Fall 2018 – Fall 2019 Rural School Data	23

I. Introduction

Congress created the Telehealth Network Grant Program (TNGP), 42 U.S.C. 254c-14(d)(1), in recognition that issues of access and the delivery of telehealth services were evolving and becoming more complex. In fiscal year (FY) 2016, the Health Resources and Services Administration (HRSA) began to support TNGP grants that facilitate the expansion of access to key health services in schools in rural high poverty areas, especially those that may also serve the broader community beyond normal school hours. TNGP also supports School-Based Health Centers (SBHCs) which are an important part of the health center safety net program, as they provide a critical access point in the delivery of telehealth services, for vulnerable school-aged children, youth, and their families in rural communities across the country. Many rural “schools provide a space for SBHCs to operate, and local health care organizations, such as Federally Qualified Health Centers (FQHCs) or hospitals, to bring an array of services delivered by a multidisciplinary team.”² For the current TNGP cohort, award recipients were strongly encouraged to provide telehealth services for rural children that focus on asthma, behavioral health, diabetes, healthy weight, and oral health. These conditions were selected from a review of the literature on rural child health status, supported by the Department of Health and Human Services (HHS), Office of the Assistant Secretary for Planning and Evaluation, which identified these as health disparity indicators where telehealth can be an effective way to provide service.³ As a result, recipients participated in a broad evaluation program with common measures to assess how the utilization of telehealth affected health disparity outcomes of those indicators.

² Love, Hayley, Nirmita Panchal, John Schlitt, Caroline Behr, and Samira Soleimanpour. 2019. “The Use of Telehealth in School-Based Health Centers.” *Global Pediatric Health*. Vol. 6: 1-10. <https://DOI.org/10.1177/2333794X19884194>.

³ Natzke, Brenda, and Luke Horner. “Environmental Scan of Programs and Policies Addressing Health Disparities Among Rural Children in Poverty.” Washington, DC: Mathematica Policy Research submitted to US Department of Health & Human Services, Office of the Assistant Secretary for Planning and Evaluation. September 23, 2015.

II. Overview

Through the TNGP, HRSA promotes the use of telehealth technologies for health care delivery, education, and health information services to address the needs of underserved populations in rural and remote areas. Telehealth is the use of electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration. Technologies include video conferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.⁴

Telehealth can bring a variety of medical specialty services to patients in many settings, helping to improve access to needed services, reduce rural practitioner isolation, improve health system productivity and efficiency, and improve patient outcomes. A recent study noted that “school-based telehealth has the potential to amplify the impact of school nurses on the health and academic outcomes of students. Children with perceived poor health are 7 times more likely to miss 11 or more academic days due to injury or illness than children with perceived good health.”⁵ Rural schools and communities can benefit from improved health outcomes by utilizing telehealth to increase access to needed health care services.

The TNGP serves to reduce the isolation of rural practitioners, a major challenge in delivering health care, by ensuring effective engagement and collaboration among practitioners traditionally operating without adequate professional supports. The TNGP’s effectiveness has led to efforts by both the federal government and many states to promote remote training opportunities for clinicians in rural areas. In addition, the TNGP enables general practitioners to refer patients to specialists and allows patients to engage with experienced professionals who are otherwise unavailable in their communities.

The TNGP has four telehealth goals:

- a. Improve access to needed services
- b. Reduce rural practitioner isolation
- c. Improve health system productivity and efficiency
- d. Improve patient outcomes.

Eligibility

For the purposes of the TNGP grant, rural schools and SBHCs are defined as follows:

- “School” is an institution for the teaching of children at the primary and/or secondary level of education.
- “School-Based Health Center” (or SBHC) is defined by the Children’s Health Insurance Program Reauthorization Act of 2009 (Section 2110(c) (42 U.S.C. 1397jj)), as a health clinic that— “(i) is located in or near a school facility of a school district or board or of

⁴ Health Resources and Services Administration. 2020. “Rural Health: Telehealth.” Last modified August 2019. <https://www.hrsa.gov/rural-health/telehealth>.

⁵ Sanchez, Denisse, Jennifer F. Reiner, Rachel Sadlon, Olga Acosta Price, and Michael W. Long. 2019. “Systematic Review of School Telehealth Evaluations.” *The Journal of School Nursing*. Vol. 35(1): 61-76. <https://DOI.org/10.1177/1059840518817870>

an Indian tribe or tribal organization; (ii) is organized through school, community, and health provider relationships; (iii) is administered by a sponsoring facility; (iv) provides through health professionals primary health services to children in accordance with State and local law, including laws relating to licensure and certification; and (v) satisfies such other requirements as a State may establish for the operation of such a clinic. The term ‘sponsoring facility’ includes any of the following: (i) a hospital, (ii) a public health department, (iii) a community health center, (iv) a nonprofit health care agency, (v) a local educational agency or (vi) a program administered by the Indian Health Service or the Bureau of Indian Affairs or operated by an Indian tribe or a tribal organization.”

- “Rural area” is either located outside of a Metropolitan Statistical Area or located within a rural census tract of a Metropolitan Statistical Area, as determined under the Goldsmith Modification or the Rural Urban Commuting Area codes.

Funding

HRSA provided \$25 million for the school-based TNGP cohort to 21 award recipients, in 19 states, with each receiving approximately \$300,000 annually over the 4-year performance period from September 2016 through August 2020. HRSA provided an additional \$1 million in supplemental funding which was distributed across 18 recipients in 2019, allowing these grantees to continue expansion of their respective telehealth networks and to create new networks.

Composition of the Telehealth Network

The telehealth network shall include at least two of the following entities (at least one of which shall be a community-based health care provider):⁶

- community health centers or other FQHCs;
- health care providers, including pharmacists, in private practice;
- entities operating clinics, including rural health clinics;
- local health departments;
- nonprofit hospitals, including community access hospitals;
- other publicly funded health or social service agencies;
- long-term care providers;
- providers of health care services in the home;
- providers of outpatient mental health services and entities operating outpatient mental health facilities;
- local or regional emergency health care providers;
- institutions of higher education; or
- entities operating dental clinics.

Data and Methods

Per the Government Performance and Review Act (1993) (GPR), federal agencies must develop strategic plans that contain quantifiable measures of each program’s progress in meeting

⁶ Section 330I (d)(1) of the Public Health Service Act (42 USC 254c-14(d)(1)), as amended.

stated goals and objectives. When the TNGP started in 2003, the Office for the Advancement of Telehealth (OAT) convened an advisory group for suggestions on the development of performance indicators and a Performance Improvement Measurement System to report the impact and effectiveness of the TNGP program. The group consisted of telemedicine grant program directors, federal officials, and a contractor. The grantees and OAT worked with the contractor to develop a series of performance indicators for program monitoring and continuous quality improvement that reflected TNGP goals and activities. These indicators were modified in 2017 to reflect new programmatic emphases, including advancing the effective practice of telehealth serving rural schools and to achieve grantee program goals as well as the telehealth goals of the TNGP program (see Appendix A).

TNGP recipients report on each of these indicators annually using the Performance Improvement Measurement System, a secure on-line performance monitoring and reporting system. TNGP grantees report performance data for one data reporting period each fiscal year, which account for a full reporting cycle. This report covers 3 years of recipient reporting and aggregates data across the school-based TNGP cohort. Appendix B shows the names of each recipient funded for each fiscal year from 2016 through 2019. Each TNGP recipient represents a telehealth network that serves from 3 to 50 sites.

HRSA also funds a Rural Telehealth Research Center (RTRC). At the start of the school-based TNGP cohort, HRSA tasked the RTRC with identifying a set of performance measures, translating the measures into data elements, and creating a data dictionary and tool that could be used to systematically collect data by School-Based (SB) TNGP grantees. The RTRC developed the School-Based Telehealth Evidence Collection Tool (S-TEC Tool) for grantees to enter data during the two annual measurement periods that align with fall and spring school semesters. The S-TEC Tool data set currently consists of three semesters of data – Fall 2018, Spring 2019, and Fall 2019. The grantees reported data at the school, student, and encounter level on all telehealth services they were providing. This report summarizes preliminary data on school-based telehealth services focused on behavioral health.

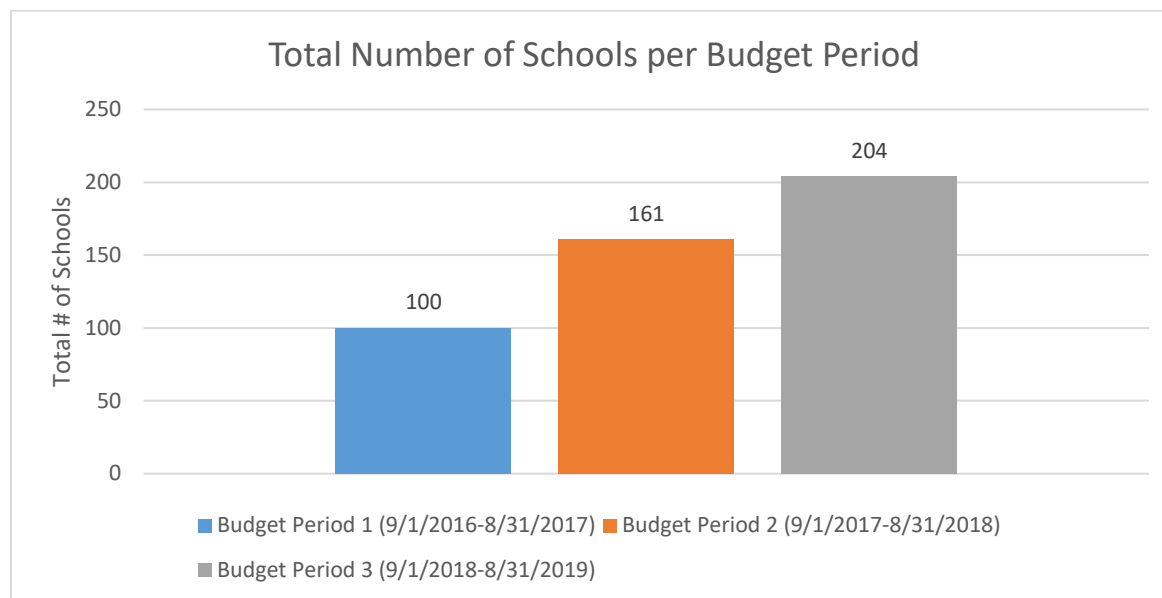
Due to the coronavirus public health emergency facing our country, all of the states represented in this TNGP cohort closed their school systems at the time HRSA finalized this Report to Congress. Some of the states closed for the remainder of the school year, and others for a temporary period.⁷ As a result, HRSA will not be able to obtain school data for the final 7 months of the project period ending on August 31, 2020.

School Sites

Figure 1 shows the number of rural school sites the TNGP supported across the first 3 budgeted years that began each September starting in 2016.

⁷ Nagel, David. 2020. "Updated List of Statewide School Closures with Closure Dates." *The Journal: Transforming Education Through Technology*. April 1, 2020: <https://thejournal.com/Articles/2020/03/17/List-of-States-Shutting-Down-All-Their-Schools-Grows-to-36.aspx>.

Figure 1 - Number of rural schools supported by TNGP recipients.



Recipients to TNGP did not represent the population of schools affiliated with health centers that report to the Bureau of Primary Health Care (BPHC) in HRSA’s Uniform Data System (UDS). Twenty percent, or 982, of 4,932 rural community health center sites reporting to BPHC in UDS are SBHCs. Matching TNGP school sites to the 2018 UDS data (the most recent data available) showed only three schools in common. Further analysis revealed that TNGP school sites and the BPHC rural SBHCs are clustered in different states. One-third of TNGP schools sites are from three states (IN, MN, ND) with no rural SBHCs in UDS. The top 3 states, representing 36 percent of rural SBHCs in the UDS (KY, WV, NM) comprised only 6 percent of schools in TNGP. Further analysis would be necessary to understand this lack of intersection of TNGP and current SBHCs reporting in UDS, but it might be due to differences in Medicaid reimbursement for SBHCs, which would matter for UDS reporting schools, but not for TNGP schools funded by a grant. When the school-based TNGP began in 2016, only 17 state Medicaid programs recognized schools as eligible sites, which has now increased to 19 states.⁸

III. Improving Access

TNGP-funded services enhance service availability in rural communities characterized by a scarcity of resources. In some rural school communities, TNGP-funded telemedicine provides the only access to certain medical services for children. Without the availability of TNGP-funded telemedicine services in these areas, children would not be able to receive these services within their communities and would have to travel extensively to obtain needed health care.

⁸ Center for Connected Health Policy. *State Telehealth Laws & Reimbursement Policies: A Comprehensive Scan of the 50 States & the District of Columbia*. Fall 2019. Retrieved from <https://www.cchpca.org/sites/default/files/2019-10/50%20State%20Telehealth%20Laws%20and%20Reimbursement%20Policies%20Report%20Fall%202019%20FINAL.pdf>.

Clinicians can provide telemedicine in the form of consultations between clinicians and patients as well as between clinicians consulting on a patient. Each instance of patient care is defined as an “*encounter*.” Types of encounters vary by specialty and can occur either as *interactive* or as *store-and-forward* encounters:

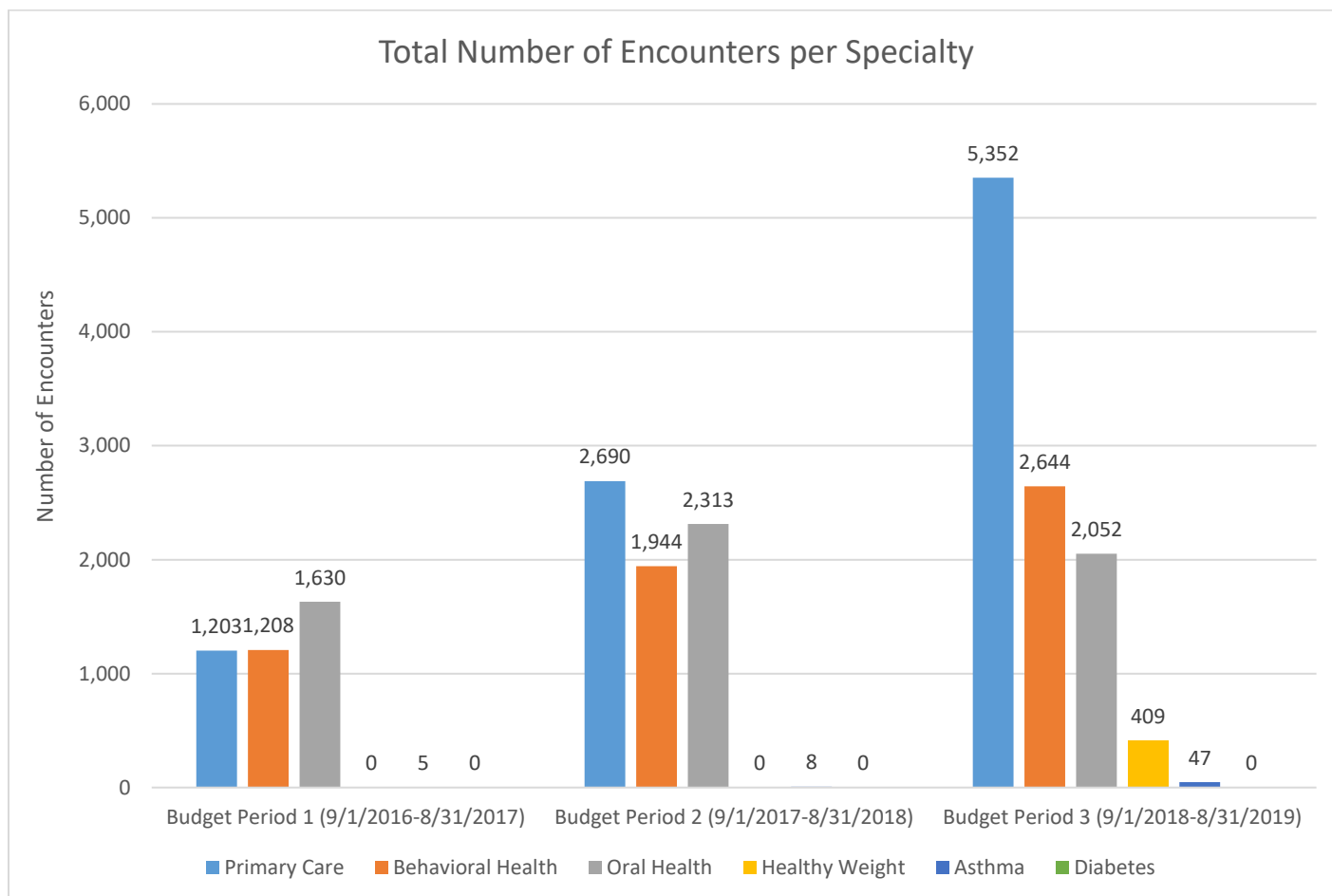
- Interactive encounters are real-time interactions between patient and provider. This would include phone conversations and online communications. Videoconferencing equipment is now one of the most common forms of interactive telemedicine. Peripheral devices can also be attached to computers or video-conferencing equipment and can aid in an interactive examination.
- By contrast, store-and-forward encounters involve acquiring medical data (e.g., images, biosignals, etc.) and then transmitting (“forwarding”) this data securely to a doctor or specialist for him/her to assess at their convenience. The clinician then transmits the assessment back to the patient. Such encounters can occur between doctors and remote specialists, or between patients and doctors/specialists. It does not require the presence of both parties at the same time, as an interactive encounter would. The store-and-forward process requires the clinician to rely on medical history reports and audio/video/digital information in lieu of a real-time examination.

Although many services can be provided through either interactive or store-and-forward encounters, services in certain specialties, such as behavioral health, healthy weight, and asthma, are more likely to be provided in an interactive manner. For oral health, store-and-forward technology is the preferred vehicle and the availability of this service “continues to be limited for many students, especially for the rural poor.”⁹

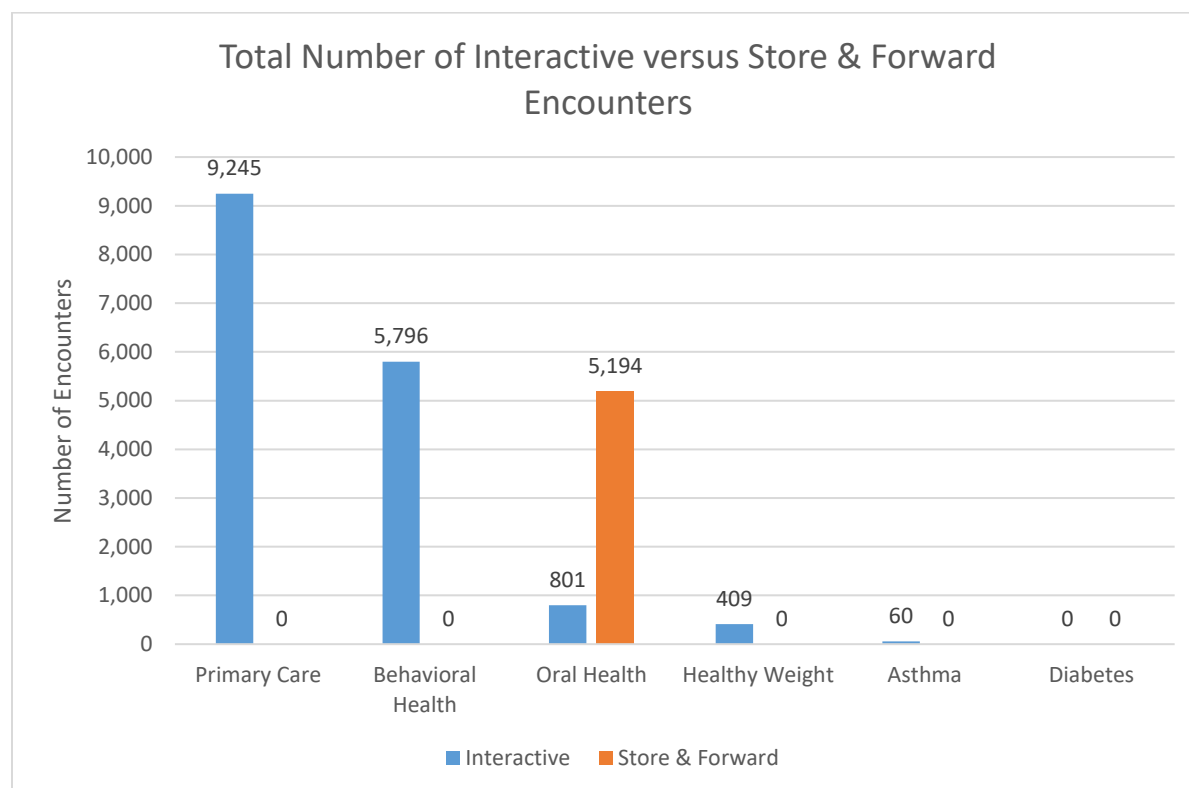
Figure 2 illustrates the volume of telemedicine encounters across the following specialties: asthma, healthy weight, behavioral health, diabetes, oral health, and primary care. Over 21,000 telehealth encounters occurred from 2016 through 2019 within the TNGP program. These include both interactive and store-and-forward services. The greatest number of encounters occurred in primary care, with 9,245 encounters. Pediatric primary care services, or acute medical service, include routine checkups or non-emergency medical care and/or treatment of a mild fever, cough, rash, or shortness of breath. The second largest number of encounters were for oral health services at 5,995, followed by behavioral health with 5,796 services.

For oral health services, a decrease in the number of encounters occurred from the second to the third budget period. Recipients providing such services have reported that the decrease suggests the need for oral health services was addressed within certain rural schools, which resulted in a decrease at the recipient level. Recipients also reported that some parents preferred to have children treated at local community-based settings, with face-to-face dental visits. As a result, recipients note that oral health services are offered at various community-based facilities, and where students receive such services can vary.

⁹ Langelier M, Rodat C, Moore J. “Case Studies of 6 Teledentistry Programs: Strategies to Increase Access to General and Specialty Dental Services.” Rensselaer, NY: Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; December 2016.

Figure 2 - Number of Encounters per Specialty

Of all grantee-reported encounters from 2016 to 2019, 76 percent were interactive and 24 percent were store-and-forward (see Figure 3). Among the six clinical specialties, primary care services accounted for the highest number of interactive encounters (9,245). A major benefit of clinicians delivering primary care via telehealth is the ability to provide care for low-acuity visits. For school telehealth, it saves a parent the need to leave work, pick up their child, and take them to see a physician. As a result, most of the grantees provide such service and, in many cases, the time saved is a more significant indicator of students receiving care in a school setting than either insurance status or the presence of a primary care physician. In addition, primary care services may also help to expand the knowledge base of a school nurse who is unfamiliar with treating a complex acute case. Oral health accounted for the highest number of store-and-forward encounters (5,194) because it primarily included hygiene services, x-rays, and patient assessments provided at the school. X-Rays are the most common form of store-forward telehealth and allow efficient remote batch review of many student oral health exams, along with the creation of a treatment plan. If a child required restorative services, they were performed during a follow-up visit scheduled at the school. Interactive primary care services accounted for 57 percent and oral health accounted for less than 1 percent of total interactive encounters.

Figure 3 - Number of Interactive versus Store & Forward Encounters

IV. Behavioral Health

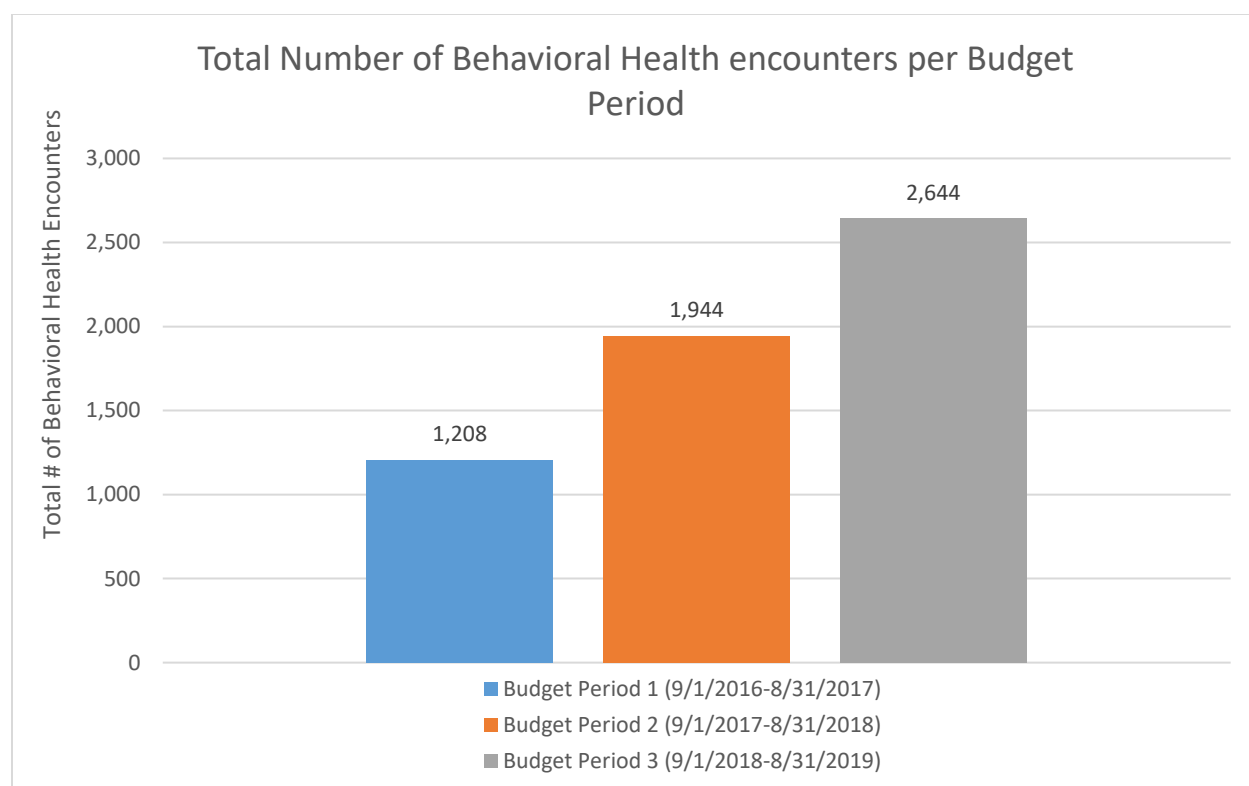
Behavioral health services “are ways of helping people with mental illnesses or substance use disorders. For example, counseling and more specialized psychotherapies seek to change behaviors, thoughts, emotions, and how people see and understand situations. Medications for mental and substance use disorders provide significant relief for many people and help manage symptoms to the point where people can use other strategies to pursue recovery.”¹⁰ Children requiring behavioral health care in rural areas frequently encounter several barriers to care. Rural communities in particular, tend to have more cohesive social networks that can decrease anonymity, inhibiting residents from seeking needed care, and posing a barrier to accessing mental health services. In addition to the geographical barriers frequently associated with accessing many medical services, mental health patients may also experience stigma and ostracizing social effects that may deter them from seeking appropriate care. Examples of such services are anxiety, depression, attention deficit hyperactivity disorder, etc. Studies by the Centers for Disease Control and Prevention (CDC) have shown that at least 1 in 5 children and adolescents have a mental health disorder that causes some impairment in functioning, while

¹⁰ Substance Abuse and Mental Health Services Administration. *Behavioral Health Treatments and Services*. (January 30, 2019) <https://www.samhsa.gov/find-help/treatment>.

only about 20 percent of these youth receive any mental health services.¹¹ In addition, the CDC also found that rural children in high poverty communities from ages 2 to 8 years of age have higher rate of parent-reported mental, behavioral, and developmental disorders than those living in cities and suburbs.¹² Utilizing telehealth can provide needed behavioral health care to schools in rural areas. Providing tele-behavioral health services allows patients to seek mental health care in a safe and confidential environment, while saving parents time and resources.

Figure 4 depicts the frequency of encounters (both interactive and store-and-forward combined) for behavioral health specialties for the 3 year period. As mentioned earlier, TNGP recipients are required to report this data into the Performance Improvement Measurement System on an annual basis. All behavioral health encounters (5,796) were conducted in an interactive manner across each Budget Period.

Figure 4 - Number of Behavioral Health encounters



¹¹ CDC, Morbidity and Mortality Weekly Report (MMWR). *Mental health surveillance among children—United States, 2005–2011*, by Perou, R., Bitsko, R. H., Blumberg, S. J., Pastor, P., Ghandour, R. M., Gfroerer, J. C., et al. (2013). 62(Suppl 2), 1-35. Retrieved from <https://www.cdc.gov/mmwr/preview/mmwrhtml/su6202a1.htm>.

¹² CDC, Morbidity and Mortality Weekly Report (MMWR). *Differences in health care, family, and community factors associated with mental, behavioral, and developmental disorders among children aged 2–8 years in rural and urban settings — United States, 2011–2012*. Robinson L, Holbrook J, Bitsko R, et al. (2017), 66(SS-8): 1-11. Retrieved from <https://www.cdc.gov/mmwr/volumes/66/ss/ss6608a1.htm>.

Rural Telehealth Research Center findings

Among the 21 TNGP grantees, 14 have provided tele-behavioral health services to 69 schools (Figure 5) and 430 students (Figure 6). In addition to tele-behavioral health services, TNGP grantees are providing telehealth services for asthma, diabetes, healthy weight, and oral health, but RTRC has not closely analyzed the data on those services at this time. This is, in part, due to ongoing data collection.

Key findings (Appendix C) from the tele-behavioral health RTRC data indicate that the number of grantees and schools providing tele-behavioral services has increased over time, while the number of tele-behavioral health encounters appears to be cyclical over the course of a school year. Note that RTRC does not evaluate the needs of schools or students overall because data are only gathered from those who actually provide and receive the services. Yet the available data provide a window into the needs of schools and students who could be served by telehealth.

The average age of students seen was 12 years, and services were delivered to primary and secondary school students ranging in age from 5 to 18 years. Data in Figure 7 show that the most common diagnoses for students receiving tele-behavioral health services were adjustment disorders and family/systems problems followed by bipolar or depressive mood disorders. The most frequent behavioral health services delivered via telehealth were individual counseling, medication management, and assessment. These services, especially medication management, were most frequently delivered via telehealth by a psychiatrist. Other clinicians delivering telehealth services, especially individual counseling, were clinical social workers and clinical psychologists. With only a few exceptions, the telehealth sessions were technically successful and resulted in the students avoiding travel to receive these services.

Figure 5 - TNGP Number of Services

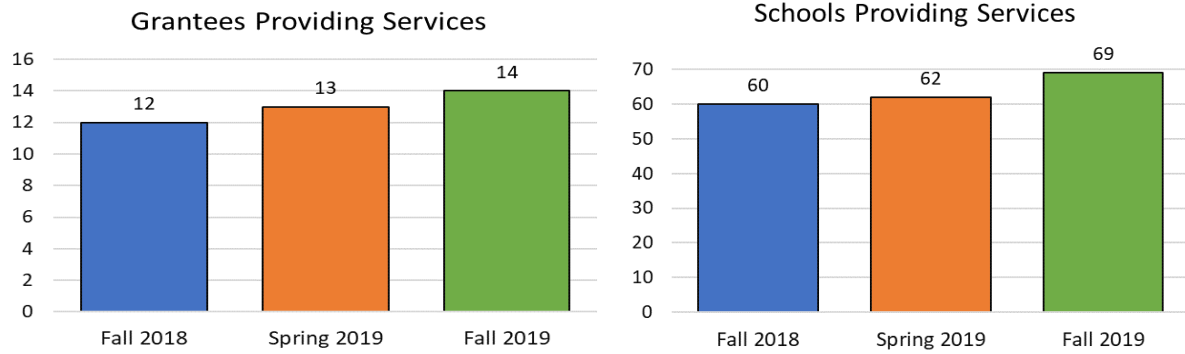


Figure 6 – Number of Students Served

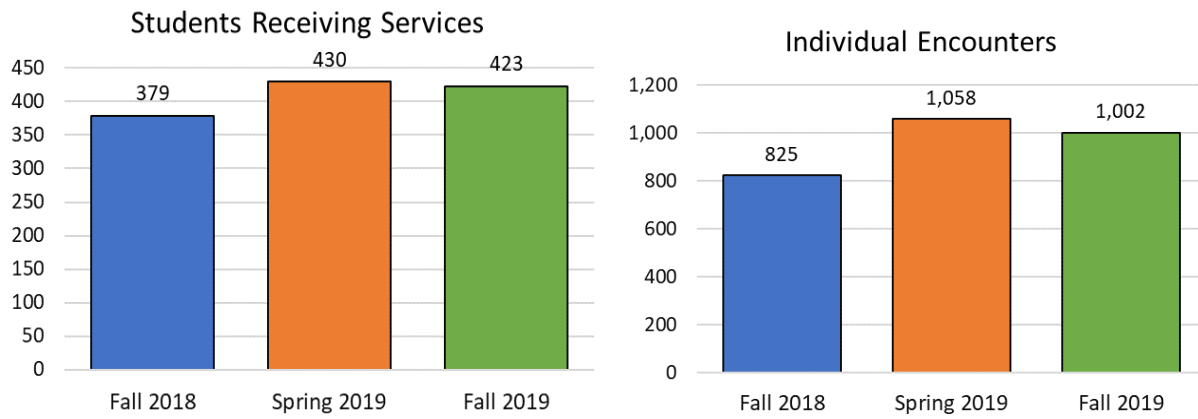
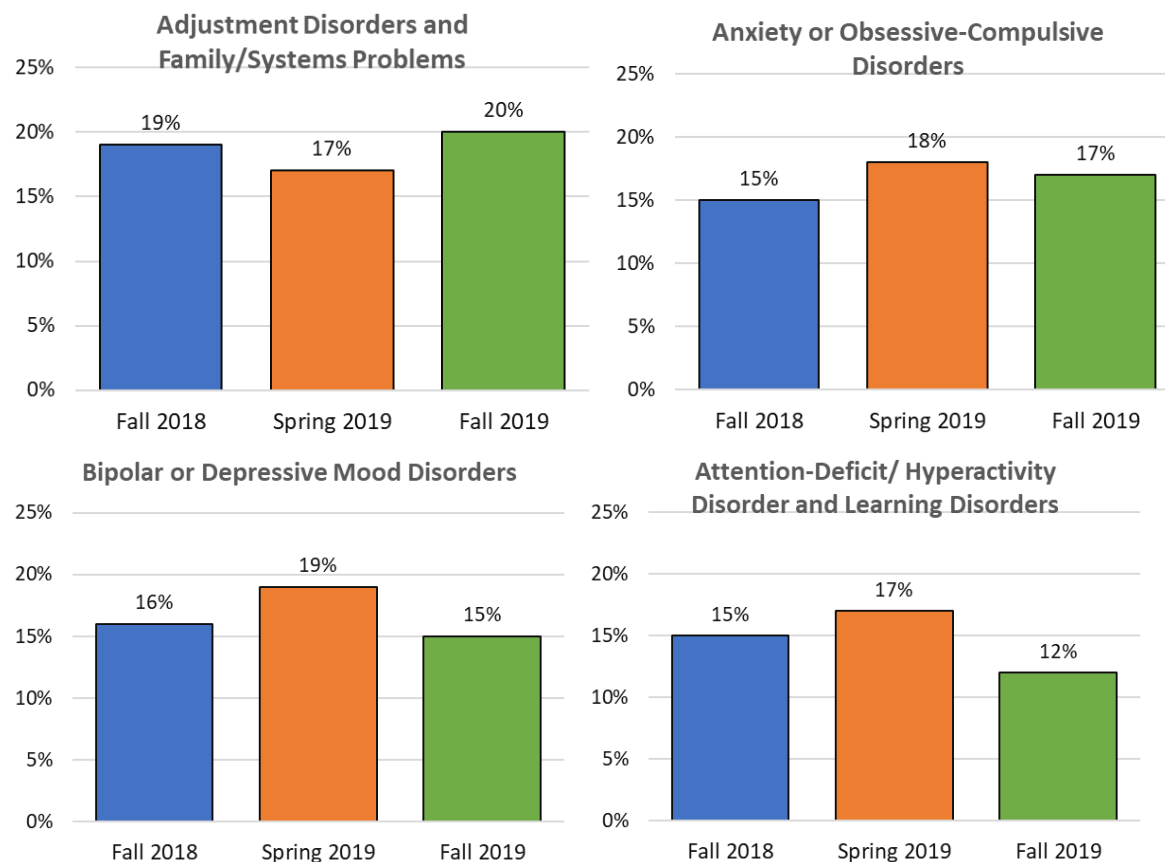


Figure 7 - Common Behavioral Health Diagnoses

Savings on Patient Travel

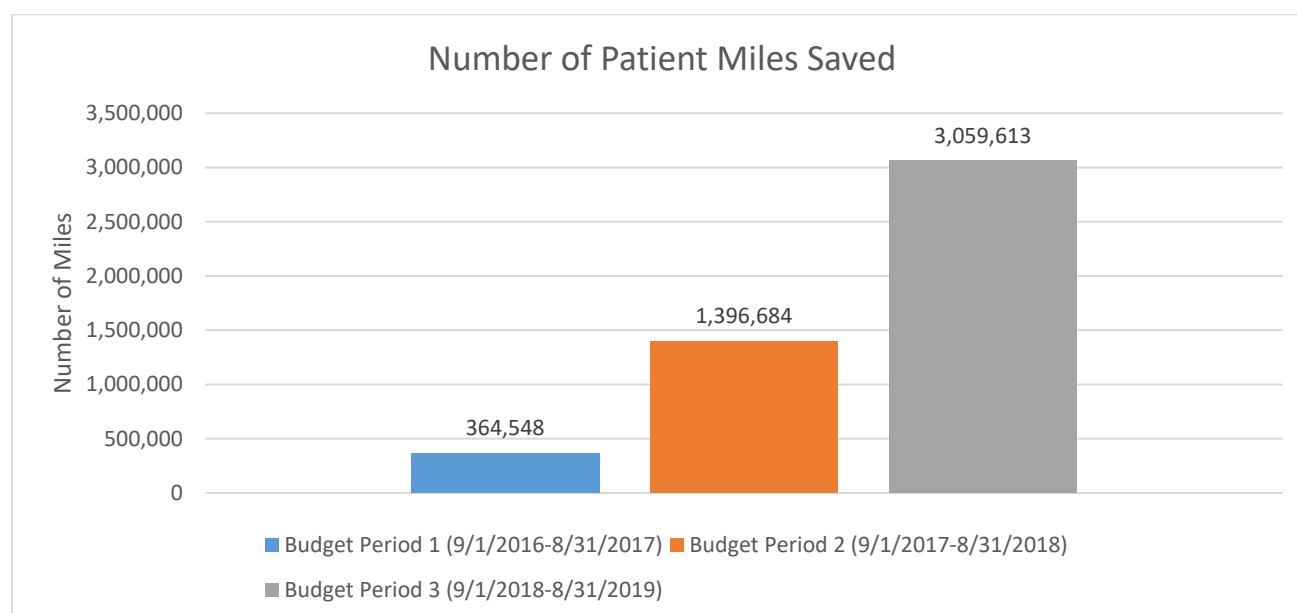
For many patients, travel from rural communities to medical centers poses a significant barrier to timely and necessary care. In the absence of telemedicine, patients would have to travel to a medical center for each medical visit. Receiving care via telemedicine in a rural school results in savings for a child's parent with respect to travel and time because access to needed health care services is convenient and readily available.

The TNGP saved patients an estimated \$2,771,986 on travel for specialist consultations during the 3 year period. Figure 8 shows the total number of patient sessions, total patient travel miles, and total dollar amount saved based on the 2019 federal mileage reimbursement rate of \$0.575 per mile.¹³ The bar graph in Figure 9 shows a gradual increase in the number of patient miles saved over the course of three consecutive budget periods.

¹³ Internal Revenue Service. *IRS issues standard mileage rates for 2020*. (December 31, 2019) <https://www.irs.gov/newsroom/irs-issues-standard-mileage-rates-for-2020>

Figure 8 - Savings on Patient Travel

Fiscal Year	Total Patient Sessions	Total Patient Travel Miles Saved	Total Dollar Amount Saved
2016	4,046	364,548	\$209,615
2017	6,955	1,396,684	\$803,093
2018	10,504	3,059,613	\$1,759,278
Total	21,505	4,820,845	\$2,771,986

Figure 9 - Patient Miles Saved

V. Conclusion

Clinicians have offered telehealth services in the United States for decades and the demand for telehealth has significantly increased in recent years. Improved technology, increased broadband, and increased need for care in rural areas, particularly rural schools in high poverty areas, are factors that contribute to the rise in telehealth interest on the part of medical professionals and community advocates. The TNGP promotes the use of telehealth technologies for health care delivery, education, and health information services to address the needs of underserved populations in rural and remote areas, as specified by the HRSA mission. Increased productivity and efficiency are fundamental goals of the TNGP and constitute important expectations of grantee performance. Report findings focus on how TNGP grantees performed on indicators designed to assess performance in major areas of program emphasis, including improving access to needed services, reducing rural practitioner isolation, and improving health system productivity and efficiency. As noted earlier, 982 rural SBHCs are listed in UDS and 603 (61 percent) of them are affiliated with health centers that report using telehealth (UDS does not show which actual sites use telehealth). Dissemination of the results in this report could help such health centers understand the potential impact of telehealth in their SBHCs. HRSA will

continue to monitor the impact of telehealth in schools as the TNGP cohort approaches the end of its project period.

Sustainability

HRSA aims to ensure the success of the telehealth grantee programs funded through TNGP. A measure of success is whether TNGP grantees can sustain these programs once HRSA grant funding ceases. Data obtained from previous TNGP cohorts indicate that 98 percent of TNGP grantees sustained their telehealth services. This high sustainability percentage among formerly funded TNGP grantees is a significant accomplishment. TNGP grantees were able to leverage interest in telehealth and engage stakeholders to continue to provide access to health care services for underserved populations, particularly those in rural and medically underserved areas.

Dissemination Plan

OAT will share the work from this TNGP demonstration with HRSA's BPHC and other key HRSA stakeholders. In addition, OAT's Telehealth Resource Centers will share findings with their stakeholders. The information shared will be specific to providing assessments and referrals for health, mental health, or substance use disorder services to students who may struggle with behavioral health issues.

VI. Appendices

Appendix A: Performance Improvement Measurement System

Input Form

Did you provide services to patients in any of the following categories during this reporting period?		
	Yes	No
Oral Health		
Obesity Reduction and Prevention		
Asthma		
Diabetes		
Behavioral Health		

Form 1: Originating and Distant Sites

Number of Each Type of Site in this Reporting Period	
Originating/Spoke/Patient Sites	[#]
Distant/Hub/Specialist Sites	[#]

Site Name	City/Town	State	Originating or Distant Site (O/D)	Rural or Urban Site (R/U)	Setting
[grantee generated list]					[choose from menu]

Note: For the purposes of this grant program, rural is defined as all counties that are not designated as parts of metropolitan areas (Mas) by the Office of Management and Budget (OMB). In addition, we use Rural Urban Commuting Area Codes (RUCAs) to designate rural areas within Mas. This rural definition can be accessed at <https://datawarehouse.hrsa.gov/tools/analyzers/geo/Rural.aspx>. If the county is not entirely rural or urban, follow the link for "Check Rural Health Grants Eligibility by Address" to determine if a specific site qualifies as rural based on its specific census tract within an otherwise urban county.

Form 2: Specialties and Services, by Site

Note: Only remote sites and specialty services that are eligible for and receiving OAT funding should be included.

Originating Site		City/Town	State
[grantee generated site]			
Specialty	Available through a local practitioner?	Specialty is actively available at this site?	Distance (in road miles) to the nearest health care facility providing the service in-person?
[grantee generated specialty]	[yes/no radio button]	[yes/no radio button]	[#]

<i>[grantee generated specialty]</i>	<i>[yes/no radio button]</i>	<i>[yes/no radio button]</i>	<i>[#]</i>
Originating Site		City/Town	State
<i>[grantee generated site]</i>			
Specialty	Available through a local practitioner?	Specialty is actively available at this site?	Distance (in road miles) to the nearest health care facility providing the service in-person?
<i>[grantee generated specialty]</i>	<i>[yes/no radio button]</i>	<i>[yes/no radio button]</i>	<i>[#]</i>
<i>[grantee generated specialty]</i>	<i>[yes/no radio button]</i>	<i>[yes/no radio button]</i>	<i>[#]</i>

Form 3: Volume of Services, by Setting

Setting	Unique Patients	Total Encounters	Number of Interactive/Real-Time Encounters (IN)	Number of Store-an-Forward Encounters (SF)
<i>[grantee generated list]</i>				
<i>[grantee generated list]</i>				
<i>[grantee generated list]</i>				

Total Number of Unique Patients Served because of HRSA funding	<i>[#]</i>
--	------------

Form 4: Patient Travel Miles Saved

Total Miles Roundtrip	<i>[#]</i>
Total Number of Patient Encounters	<i>[#]</i>
Total Miles Saved	<i>[#]</i>

Form 5: Other Uses of the Telehealth Network

Categories	Number of Sessions
Administrative Meetings	<i>[#]</i>
Distant Learning	<i>[#]</i>
Other	<i>[#]</i>

	Total Number of Sessions	Total Number of People
--	--------------------------	------------------------

Formal Education (sessions are used to fulfill formal education, licensure or certification requirements)	[#]	[#]
Informal Education (sessions used to meet regulatory practice requirements, as well as supervision/advice requested by remote practitioners)	[#]	[#]

Form 6: Diabetes

Number of unduplicated patients with diabetes served for at least three months during the reporting period	[grantee reported #]
Number of patients with diabetes (who received services for at least three months during the reporting period) whose most recent Hemoglobin A1c (HbA1c) level is 7.0% or less.	[grantee reported #]
Number of patients with diabetes (who received services for at least three months during the reporting period) whose most recent Hemoglobin A1c (HbA1c) level is between 7.1% and 9.0%.	[grantee reported #]
Number of patients with diabetes (who received services for at least three months during the reporting period) whose most recent Hemoglobin A1c (HbA1c) level during the measurement year was greater than 9.0% (poor control), or if an HbA1c test was not done during the reporting period.	[grantee reported #]

Form 7: Mental Health

Number of sites that have access to mental health services where access did not exist prior to the TNGP grant	[#]
Number of sites that have access to mental health services for pediatric and adolescent populations where access not exist prior to the TNGP grant	[#]
Number of sites that have access to mental health services for adult populations where access did not exist prior to the TNGP grant	[#]

Menu for Form 1

- School Based Health Center
- Community Health Center (including FQHCs)
- Health Care Provider in Private Practice
- Clinic (including RHC)
- Local Health Department
- Hospital (including CAH)

- Long Term Care Provider
- Home Health Service Provider
- Outpatient Mental Health Service Provider/Facility
- Local or Regional Emergency Health Care Provider
- Higher Education Institution
- Oral Health Provider
- Other Publically Funded Health or Social Service Agency
- Other

Appendix B: Recipient Names, City, and State

RECIPIENT NAME	CITY	ST
UNIVERSITY OF NEW MEXICO	Albuquerque	NM
KENNEDY KRIEGER CHILDREN'S HOSPITAL INC	Baltimore	MD
RECTOR & VISITORS OF THE UNIVERSITY OF VIRGINIA	Charlottesville	VA
VOLUNTEER BEHAVIORAL HEALTH CARE SYSTEM	CHATTANOOGA	TN
COMMUNITY HEALTH CENTER OF BRANCH COUNTY	Coldwater	MI
BAPTIST HEALTH FOUNDATION CORBIN, INC.	Corbin	KY
EAST CAROLINA UNIVERSITY	Greenville	NC
UNIVERSITY OF KANSAS MEDICAL CENTER RESEARCH INSTITUTE, INC.	Kansas City	KS
INDIANA RURAL HEALTH ASSOCIATION	Linton	IN
UNIVERSITY OF ARKANSAS SYSTEM	Little Rock	AR
MARSHFIELD CLINIC	Marshfield	WI
CHILDREN'S DENTAL SERVICES	Minneapolis	MN
WEST VIRGINIA UNIVERSITY RESEARCH CORPORATION	Morgantown	WV
FORT PECK ASSINIBOINE & SIOUX TRIBES	Poplar	MT
AVERA HEALTH	Sioux Falls	SD
SUNNYSIDE COMMUNITY HOSPITAL ASSN	Sunnyside	WA
BAY RIVERS TELEHEALTH ALLIANCE	Tappahannock	VA
COMMUNITY HEALTH CENTER, INCORPORATED	Middletown	CT
BASSETT, MARY IMOGENE HOSPITAL	Cooperstown	NY
QUALITY OF LIFE HEALTH SERVICES INC	Gadsden	AL
BEN ARCHER HEALTH CENTER, INC.	Hatch	NM

Appendix C: Rural Telehealth Research Center – Fall 2018 – Fall 2019 Rural School Data

SB TNGP data submissions	Fall 2018	Spring 2019	Fall 2019
Grantees providing tele-behavioral health services	12	13	14
Schools sites of tele-behavioral health service	60	62	69
Students receiving tele-behavioral health services	379	430	423
<i>Students are...</i>			
More likely to be male than female	55%	56%	51%
Predominantly white	85%	88%	90%
Predominantly non-Hispanic	88%	88%	75%
Had an average age of 12 years	12	12	13
Over half were screened with an age-appropriate risk assessment that included a depression screening	55%	54%	56%
Over half had suicide risk assessed	53%	59%	58%
Two-thirds received a comprehensive risk assessment and/or their provider discussed common risk behaviors with them	61%	66%	60%
<i>Common behavioral health diagnoses were:</i>			
Adjustment disorders and family/systems problems	19%	17%	20%
Bipolar or depressive mood disorders	16%	19%	15%
Total tele-behavioral health service encounters	825	1,058	1,002
<i>On average, students received:</i>			
One tele-behavioral health session	47%	39%	42%
Two tele-behavioral health sessions	26%	21%	22%
Three or more tele-behavioral health sessions	27%	40%	36%
<i>The most common types of licensed clinician providing services:</i>			
Psychiatrist	34%	41%	31%
Clinical social worker	25%	10%	15%
Clinical psychologist	11%	10%	9%
<i>The most common types of service were:</i>			
Individual counseling	57%	44%	48%
Medication management	26%	36%	26%
Assessment	14%	19%	22%
Almost all telehealth encounters were technically successful	98%	99%	100%
<i>Most common disposition following these encounters were:</i>			
Student was released to resume regular school schedule	96%	80%	87%
Student was released from school to parent/guardian/family's care	3%	19%	13%
<i>Most common follow-up referral decisions following these encounters were:</i>			
Student was referred for follow-up return visit to SB-TNGP WITH telehealth	42%	58%	87%

Student was determined to NOT need referral for follow-up care	30%	40%	11%
Essentially all avoided travel for care because of receiving school-based tele-behavioral health services	98%	100%	100%
<i>Most common providers that were avoided were:</i>			
Psychiatrist	51%	62%	40%
Licensed clinical social worker	26%	11%	23%
Counselor	19%	24%	23%
Students averaged about 90 miles one-way avoided travel per session to nearest likely source of care	86 miles	86 miles	99 miles