



**Biennial Report on
School-Based Health Centers
Fiscal Years 2012-2013**

**As Required By
Texas Education Code, Chapter 38, Section 38.064**



**Department of State Health Services
September 2015**

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Biennial Report on School-Based Health Centers – Fiscal Years 2012 and 2013

Executive Summary

Texas Education Code, Section 38.063 directs the Department of State Health Services (DSHS) to create a program to fund school-based health centers (SBHCs) subject to the availability of federal or state appropriated funds. Grants are awarded to assist school districts and entities that contract with school districts (e.g., local health departments, hospitals, health care systems, universities, nonprofit organizations) with the costs of operating SBHCs. In addition, Texas Education Code, Section 38.064 requires DSHS to issue a biennial report to the legislature about the efficacy of services delivered and any increase in academic performance of students served by the funded SBHCs.

This biennial report represents information from a transitional period of DSHS funding for SBHCs. From their inception, the goal of SBHCs was to provide health care to children that were uninsured and had limited access to health care. With an increasing need to show the impact SBHCs have on improving academic outcomes, DSHS shifted in fiscal year 2012 from a process model to a student outcome model. Funded SBHCs, while still providing health care services to all students, are required to provide services to students with certain chronic conditions that have a greater impact on academic outcomes.

Key Points and Findings

Five entities received funding from DSHS to support six SBHCs from September 1, 2011 through August 31, 2013. A total of 18,241 visits to funded SBHCs were reported. Of the total reported visits, 8,895 were for primary care, 2,277 visits were for preventive care, 3,945 visits were for mental health issues, and 3,124 visits were for dental health.

Most visits to SBHCs were for primary care and preventive services. Primary care services are provided by clinicians who are patient-focused and serve as the first contact in identifying health issues such as ear and upper respiratory infections. Preventive services are designed to prevent diseases. The 2,277 preventive visits were for immunizations, well-child and Texas Health Steps exams, sports physicals, and other preventive services.

SBHCs also provided a number of screenings, including 1,585 students screened for dental problems and 1,141 students screened for height and weight. The screenings identified 812 students with dental problems, 112 students as being overweight and 115 students identified as obese.

To promote sustainability, SBHCs are required to bill for Medicaid, the Children's Health Insurance Program (CHIP), and other third party payers. A total of 3,153 students enrolled in the SBHCs were identified as having Medicaid or CHIP and 1,844 students were identified as uninsured. Uninsured students accounted for 38 percent of all visits. Funded SBHCs billed for a total of \$1,652,126.56 and received \$458,367.46 for services provided. They collected \$294,765.24 from Medicaid, \$42,583.43 from CHIP, \$93,627.54 from private insurance, and \$27,391 from private pay.

As required by statute and the DSHS School Health Program guidelines for SBHCs, contractors tracked subpopulations of students with chronic conditions, including: asthma, mental health conditions, and being overweight or obese. Using evidence-based interventions, contractors tracked health and educational outcomes for the selected subpopulations. Future reports will continue to provide information on the health services delivered to Texas children through DSHS funded SBHCs focusing on health and educational outcomes for children with chronic conditions.

Introduction

Texas Education Code, Section 38.064. Report to Legislature

Texas Education Code (TEC), Section 38.063 directs DSHS to fund school-based health centers (SBHC). The law states that, subject to the availability of federal or state appropriated funds, the Commissioner of DSHS shall administer a program to award grants to school districts and local health departments, hospitals, health care systems, universities, or nonprofit organizations that contract with school districts to assist them with the costs of operating SBHCs. In addition, TEC, Section 38.064 requires DSHS to issue a biennial report to the legislature about the efficacy of services delivered and any increase in academic performance of students served by the funded SBHCs. This report also addresses the six specific areas as outlined below from Section 38.064.

- Increased attendance, including attendance information regarding students with chronic illnesses
- Decreased drop-out rates
- Improved student health
- Increased student immunization rates
- Increased student participation in preventive health measures, including routine physical examinations and checkups conducted in accordance with the “Texas Health Steps” program
- Improved performance on student assessment instruments administered under Subchapter B, Chapter 39

Background

In 2012, 16 percent of children in Texas 17 years of age and younger were uninsured and were less likely to receive health care than insured children.¹ School personnel see many students with physical and mental health conditions that, if left untreated, may negatively affect a child’s school attendance, academic performance, attention span, impulse control, and the ability to refrain from self-destructive behavior.² To address these issues, DSHS provides funding for SBHCs in areas where students are in most need of health care.

Since the first SBHC opened in Dallas in 1970, SBHCs have been a means of providing health care to medically underserved children and adolescents. Today, there are nearly 90 SBHCs, funded through a variety of mechanisms, serving Texas children.³ The SBHCs use a comprehensive, multi-disciplinary approach to address the health care needs of school children, many of whom do not receive health care elsewhere. SBHCs are staffed by a

¹ Texas Medical Association. Quick Statistics on the Uninsured in Texas and the U.S. 2012. Available at: <http://www.texmed.org/Template.aspx?id=5519>. Accessed August 2014.

² School-Based Health Alliance. Policy Statement: Documentation of the Relationship between School-Based Health Centers and the Academic Accomplishments of Students. Available at: http://www.sbh4all.org/site/c.ckLQKbOVLkK6E/b.8021433/k.B88D/Policy_Statements.htm. Accessed August 2014.

³ Texas Association of School-Based Health Centers. October 2008. Available at www.tasbhc.org. Accessed August 2014.

primary care provider, primarily a nurse practitioner or a physician's assistant, and may include other providers such as a licensed professional counselor, a dentist, or a nutritionist. Services provided through SBHCs include:

- Immunizations
- Well-child exams
- Sports physicals
- Acute care for minor illness and injury
- Management of chronic illness
- Dental screenings, treatment, and referral
- Mental health services
- Basic health education

SBHCs are usually located on school campuses, although some are located in easily accessible sites off campus or through a mobile clinic. In some communities, the SBHC is located on one campus and only serves the students at that campus. In other communities, an SBHC located on one campus may also serve other nearby schools. Each SBHC is tailored to meet the needs of the individual school community.

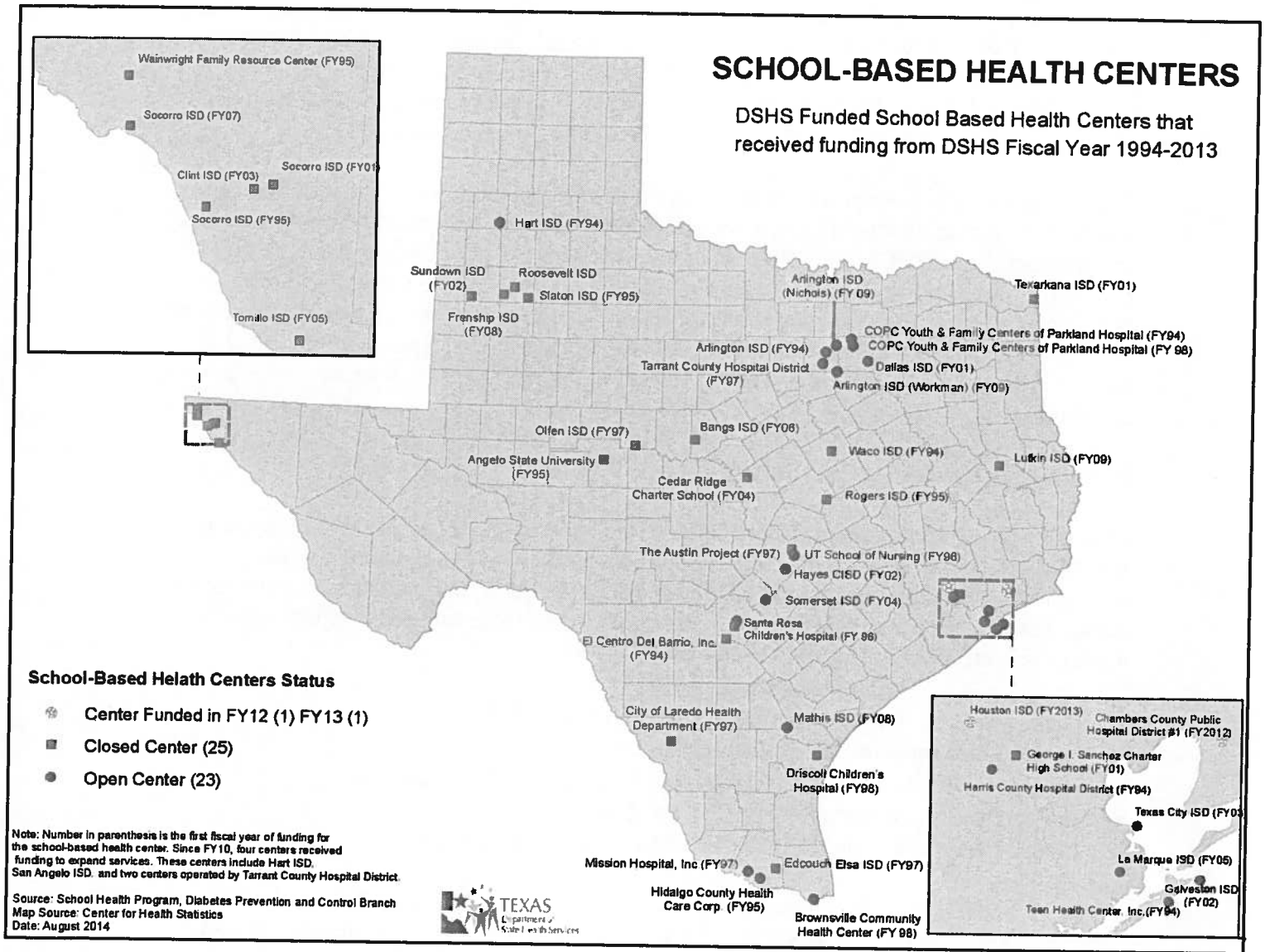
SBHCs typically operate independently with the school nurse serving as the linkage for referring students for more advanced services. Before rendering services in the SBHC, students must have a signed parental consent form on file indicating all services that will be provided to the student. In many instances, family members, such as siblings or children of parenting teens, are also eligible to use SBHC services.

In 1993, the Texas Department of Health, now DSHS, began providing competitive grant funding to assist Texas communities in establishing SBHCs. H.B. 2202, 76th Legislature, Regular Session, 1999, amended Texas Education Code (TEC), Chapter 38, and required the Commissioner of DSHS, based on the availability of federal or state appropriated funds, to administer a grant program to assist school districts with the costs of operating SBHCs.

TEC, Sections 38.063 and 38.064 were amended during the 81st Legislature, Regular Session, 2009, changing the requirements for the SBHC grant program. These changes included opening the applicant pool to local health departments, hospitals, health care systems, nonprofit organizations, and universities. It also extended the contract period to five years. Funds received from the grant program may be used to establish and operate an SBHC and to expand services within existing SBHCs. Section 38.064 was amended to include a focus on children with chronic conditions as it relates to intermediate educational outcomes such as attendance.

DSHS implemented new sections of the law in fiscal year 2010 by contracting with a hospital district to expand mental health services within existing SBHCs. Beginning in fiscal year 2011, the funding cycle shifted from a three-year to a five-year contract period and performance measures were added to assess the impact of SBHCs for students with chronic conditions.

Since fiscal year 1994, 48 new SBHCs have been funded, and four established SBHCs received funds to expand services. Of the 48 new SBHCs, 24 were still operating in fiscal year 2013. The map below illustrates the location and status of funded SBHCs. A list of these SBHCs can be found in Appendix A.



In the past, the primary focus of DSHS funding for SBHCs was to provide health care to children that were uninsured and had limited access to health care services. With an increasing need to show the impact SBHCs have on improving academic outcomes, the focus shifted to providing services to students with certain chronic conditions that adversely

affect academic outcomes; thus, changing SBHC funding from a process model to a student outcome model. For purposes of this report, the chronic conditions selected are asthma, dental health, diabetes, mental health, and overweight/obesity.

As DSHS transitioned to focus on student outcomes, there was also an expansion to require uniform performance measures that will soon be reported through a web-based reporting system. In fiscal year 2012, performance measures were tailored to individual contractors and in fiscal year 2013, performance measures were uniform for contractors serving students with the same chronic conditions. Performance measures for this report were reported through Excel data collection forms. The web-based reporting system has been developed and is being utilized with contracts beginning in fiscal year 2015.

This report contains both process and student outcome data addressing the requirements outlined in Section 38.064. The first section contains process data on the types of services and utilization of SBHCs, the billing and reimbursements of services provided, and the impact of SBHCs on student assessment. The second section of the report provides preliminary student outcome data for schools with SBHCs. With the transitions to uniform performance measures and a web-based reporting system, future reports are expected to include more outcome data showing the impact that SBHCs have on students with chronic conditions.

Funded Contractors

During the 2012-13 biennium, DSHS funded five contractors, including two independent school districts, one hospital district, one public health district, and one nonprofit organization. These five contractors supported six SBHCs in rural and urban communities across Texas. Of the six SBHCs, two were new and four were funded to expand mental health services. The funded SBHCs are listed below:

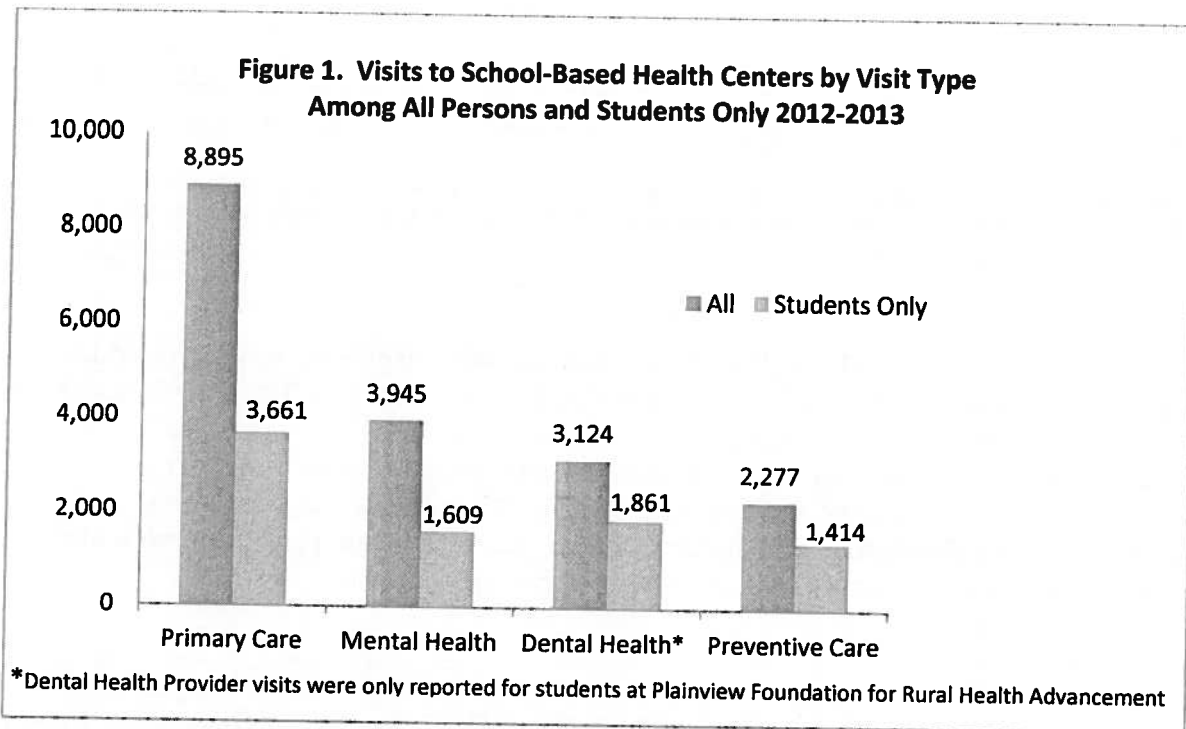
- Chambers County Public Hospital District #1 (2012-16)
- Houston Independent School District (2013-17)
- Plainview Foundation for Rural Health Advancement (2011-15)
- San Angelo Independent School District (2010-13)
- Tarrant County Hospital District (two SBHCs funded 2010-13)

While all SBHCs provide primary and preventive health care services and share other common characteristics, each SBHC decides which additional services may be needed. Input is sought from the local school health advisory council (SHAC), parents, and other stakeholders to ensure that community values are reflected in the operation of each SBHC.

Section 1 – Process Measures

Utilization of DSHS-Funded School-Based Health Centers

Funded SBHCs reported 18,241 visits during the biennium. Of the total visits, 8,895 (48.8 percent) were for primary care, 3,945 visits (21.6 percent) were for mental health, and 3,124 visits (17.1 percent) were for dental health. Preventive visits including immunizations, well-child exams, and sports physicals totaled 2,277 visits (12.5 percent). The breakdown of visits by category is illustrated in Figure 1.



Payment Methods for SBHC Services

In addition to providing primary and preventive health services, SBHCs also strive to provide a continuity of care by linking students to a medical home, enrolling families in Medicaid or the Children's Health Insurance Program (CHIP), and referring students to community providers for specialty services and treatment for mental and dental health problems. A total of 3,153 students enrolled in the funded SBHCs were identified as having Medicaid or CHIP and 1,844 students were identified as uninsured. During the biennium, the uninsured students accounted for approximately 38 percent of all visits. Though staff provided support to help families obtain insurance through Medicaid or CHIP, there were still barriers that prevented families from qualifying for insurance. SBHCs can serve as the medical home for the uninsured, thus assuring access to health care services. Table 1 lists the number of students enrolled in the SBHCs and the number of student visits by insurance status.

Table 1. Number of Students Enrolled in Funded SBHC and Number of Student Visits (2012-2013)

Health Insurance Status	# Enrolled	% Enrolled	# Visits	% Visits
Medicaid	2,476	40.1	6,102	42.0
Children's Health Insurance Plan (CHIP)	677	11.0	1,314	9.0
Private Insurance	975	15.8	1,499	10.0
Uninsured	1,844	29.9	5,474	37.5
Other	200	3.2	229	1.5
Total	6,172	100	14,618	100

Table 1 Note: One contractor was not able to report visits by insurance status. The overall number of visits listed in this report (18,241) is higher than the number listed in this table. (Texas Department of State Health Services, 2012-2013)

SBHCs billed for a total of \$1,652,126.56 and received \$458,367.46 for services provided. Table 2 lists the amount billed and collected by health insurance status. The amount billed to Medicaid for services was \$853,362.02. In comparison, \$401,732.74 was billed to the uninsured for services provided. Assisting families with obtaining insurance mainly through Medicaid allows SBHCs to receive more reimbursement for services provided. Students enrolled in Medicaid, as compared to those that are uninsured, are also more likely to receive additional health care services through community providers.

Table 2. Amount Billed and Collected by Texas SBHCs by Health Insurance Type (2012-2013)

Insurance Type	Amount Billed	Amount Collected
Medicaid	\$853,362.02	\$294,765.24
CHIP	\$164,736.13	\$42,583.43
Private insurance	\$232,296.67	\$93,627.54
Uninsured	\$401,731.74	\$27,391.25
Total	\$1,652,126.56	\$458,367.46

*Chambers County Public Hospital District #1 did not report amount billed or amount collected overall or by health insurance type in 2012 therefore this table does not include data from Chambers County 2012. (Texas Department of State Health Services, 2012-2013)

During the 2012-13 biennium, SBHCs referred 366 students to community providers for specialty care. Of the 366 students, 305 were seen by outside providers for a referral completion rate of 83 percent. (A referral completion rate is the percent of students that followed up with a community provider.) SBHCs made the most referrals to specialists such as cardiologists followed by mental health and dental health providers. Of the three top referrals, the completion rate for specialists was the lowest at 72.6 percent. Common barriers exist for accessing specialists including insurance status, wait time, transportation issues, and a limited number of specialists.

Immunizations

Nationally, 85 percent of all SBHCs provide immunizations.⁴ SBHCs help students receive immunizations required for school attendance. Mandated school immunizations for Texas are outlined in the Texas Administrative Code – Title 25 Health Services, Sections 97.61-97.72. Required vaccines include: diphtheria, tetanus, pertussis, measles, mumps, and rubella, hepatitis A and B, varicella, polio and meningococcal. Providing immunizations is a required service for all DSHS-funded SBHCs. The total number of immunizations administered during the biennium was 4,850 during 2,741 visits.

DSHS collects immunization rates from school districts for pre-kindergarten, kindergarten, and seventh grades. Immunization data from school districts that were served by funded SBHCs at the elementary campuses were obtained for the 2011-12 and 2012-13 school years. Results are reported by required vaccines such as measles, mumps and rubella (MMR), and polio and are found in Appendix B, Tables 7 and 8.

While the results show an increase in compliance for certain vaccines, the extent to which SBHCs administering immunizations to students in pre-kindergarten, kindergarten and seventh grades contributed to the increase in compliance rates is unknown. This level of analysis would require comparing aggregate data from students in pre-kindergarten, kindergarten, and seventh grade that received vaccines at SBHCs to all students in pre-kindergarten, kindergarten, and seventh grade at the same school campuses.

Preventive Health Services

SBHCs provide a number of preventive services that are designed to detect and address health problems early to minimize the impact on students' learning. These services include Texas Health Steps exams, sports physicals, risk assessments, and screenings for dental, mental health, and overweight issues. Texas Health Steps exams are comprehensive preventive exams for students enrolled in Medicaid.

Funded contractors provided a total of 1,187 Texas Health Steps exams and 220 sports physicals. In addition, SBHCs provided a number of screenings that resulted in students with health problems being identified and treated (Table 3).

⁴ Ibid.

Table 3. Health Screenings Performed at Texas SBHCs by Type

Type of screening	# of students screened	# of students identified
Dental	1,585	812 dental problems
Height and weight	1,141	112 overweight 115 obese
Mental health	339	n/a

n/a=not available (Texas Department of State Health Services, 2012-2013)

Preventive services are critical to address factors that are known to have an adverse effect on academic performance. These factors include substance use, emotional problems, poor diet, intentional injuries, physical illness, and low self-esteem. SBHCs, through detecting problems early, can support and foster high levels of resiliency, developmental assets, and school connectedness, which are known to have a positive effect on academic performance.⁵

Section 2 - Outcome Measures for Subpopulations of Students with Chronic Conditions

Chronic Conditions

SBHC contractors were required to select and track a subpopulation of students with chronic conditions. Contractors were required to track a total of 30 students with a focus on either one or two chronic conditions. A minimum of 15 students were tracked for each chronic condition selected. This requirement allowed SBHCs in rural areas of the state, where it may be hard to find 30 students enrolled in an SBHC with a single chronic condition, to meet the minimum number of students for a subpopulation. Using evidence-based interventions, contractors provided clinical services, educational instruction, and tracked health and educational outcomes for students with chronic conditions.

Performance measures in fiscal year 2012 were tailored to individual programs, however, performance measures for fiscal year 2013 were assigned to contractors serving students with the same chronic condition. Table 4 lists the required performance measures for the three chronic conditions that were selected by the SBHC contractors.

Future reports will document health status for students with other chronic conditions including asthma and obesity. While contractors also treated and provided education to students with asthma and those identified as overweight or obese, there has not been enough data to analyze health outcomes, such as changes in asthma exacerbation or in body mass index (BMI) for students that are overweight or obese. However, process outcomes for these chronic conditions have been collected and assessed.

⁵ Hurtwitz L, Weston K. Issue Brief: Using Coordinated School Health to Promote Mental Health for All Students. *The National Assembly on School-Based Health Care*. 2011. Available at <http://www.sbh4all.org/site/c.ckLOKbOVLkK6E/b.7697107/apps/s/content.asp?ct=10863875>. Accessed August 4, 2014.

- One contractor reported 13 of the 20 students in the asthma subpopulation increased their knowledge as reported on post-tests about asthma after receiving six educational sessions from the “Open Airways for School Program.” The other five students did not increase their knowledge as documented on post-tests.
- Within a four-month period of opening a new SBHC in fiscal year 2013, one contractor identified eight overweight/obese students. These eight students were evaluated by a registered dietitian certified as a pediatric management weight counselor and started receiving educational instruction. Family members of the eight students also received educational instruction to learn about the importance of proper nutrition and exercise in a child’s development. A second contractor focusing on the overweight/obese subpopulation did not have enough data to report any process outcomes.

Table 4. Required Performance Measures for Subpopulations Served at Texas SBHCs

Subpopulation	Required Performance Measures
Asthma	<ul style="list-style-type: none"> • Obtain and document peak air flow measure for every student at every visit • Develop an asthma action plan for every student • Track participation rate for students and/or families in an education program to manage their asthma • Obtain the number of days absent for every student on a quarterly basis
Mental Health	<ul style="list-style-type: none"> • Develop a treatment plan for every student • Track compliance with treatment plan • Track discipline referrals and suspensions for every student • Track participation rate for students and/or families in an education program to manage symptoms • Obtain the number of days absent for every student on a quarterly basis
Overweight/Obesity	<ul style="list-style-type: none"> • Obtain and document weight and height at every visit and calculate BMI • Develop a treatment plan for every student • Track compliance with treatment plan • Track participation rate for students and families in an education program to increase knowledge about making healthier food choices and the health benefits of physical activity and maintaining an ideal weight • Obtain the number of days absent for every student on a quarterly basis

Table 5 lists the demographics reported in fiscal year 2013 for the three chronic conditions.

Table 5. Demographics of Students with Chronic Conditions Identified in Texas SBHCs (2013)

Subpopulation	Asthma	Mental Health	Overweight/obesity
Number of students	20	60	30
Gender			
Female	13	25	18
Male	5	35	12
Unknown	2	0	0
Race\Ethnicity			
White	6	27	0
Black	8	4	0
Hispanic	5	28	28
Mixed	0	1	0
Asian	1	0	0
Unknown	0	0	2
Insurance Status			
Medicaid	0	27	15
CHIP	0	6	3
Private	0	11	1
None	20	14	4
Other	0	2	0
Unknown	0	0	7

(Texas Department of State Health Services, 2012-2013)

As reported by the School-Based Health Alliance, SBHCs contribute to academic success by providing primary and preventive health care services, identifying students at risk for violence and substance abuse, and promoting a safe and secure school environment to students, especially for the uninsured and underserved.⁶ While the direct correlation between SBHCs providing students with health care services to academic performance

⁶ School-Based Health Alliance. *op. cit.*

cannot be made, research has documented the impact of SBHCs on intermediate educational outcomes including attendance and discipline, especially for students with chronic conditions.⁷ These intermediate educational outcomes—attendance and discipline—have been directly linked to academic performance and dropout rates as indicated by the following research findings.

- A study by Applied Survey Research that included 19 school districts and 640 student records found that students who arrived at school academically ready-to-learn-but then missed 10 percent of their kindergarten and first-grade years-scored, an average of 60 points below similar students with good attendance on third-grade reading tests.⁸
- According to a study published by the Public Policy Research Institute at Texas A&M, students who were suspended and/or expelled, particularly those who were repeatedly disciplined, were more likely to be held back a grade or to drop out than were students not involved in the disciplinary system. Approximately 59 percent of students disciplined 11 times or more did not graduate from high school.⁹

Improvement on Assessment of Students' Academic Skills

TEC, Section 38.064 requires DSHS to report on improved performance on assessments taken by students served by SBHCs. Texas began administering the Texas Assessment of Knowledge and Skills (TAKS) test to students in grades three through 11 during the 2002-03 school year. In 2012, the State of Texas Assessments of Academic Readiness (STAAR®) test replaced the TAKS test. To determine the level of improvement, two years of STAAR® scores were analyzed.

Table 9 in Appendix B lists the STAAR® scores at the school district and school campus levels of the funded contractors. The analysis resulted in the following:

- Three school districts with SBHCs had an increase in STAAR® scores from the 2011-12 school year to the 2012-13 school year.
- At the campus level, two elementary schools with SBHCs saw a three and seven percent increase in the STAAR® test from the 2011-12 school year to the 2012-13 school year.

Increases in test scores cannot be directly attributed to the SBHC. The following factors must be considered in examining the impact of an SBHC on student assessment tests.

- **Reporting.** The Texas Education Agency reports scores at the campus and district levels. While five of the six SBHCs served multiple campuses within the district, not all

⁷ Geierstanger SP, Amaral G. School-Based Health Centers and Academic Performance: What is the Intersection? April 2004 Meeting Proceedings. White Paper: Washington, DC: National Assembly on School Based Health Care; 2005.

⁸ Applied Survey Research. Attendance in Early Elementary Grades. Associations with Student Characteristics, School Readiness, and Third Grade Outcomes. July 2011.

⁹ Fabelo T, Thompson MD, Plotkin M, Carmichael D, Marchbanks MP, and Booth EA. 2011. Breaking Schools' Rules: A Statewide Study of How School Discipline Relates to Students' Success and Juvenile Justice Involvement. New York, NY: Council of State Governments Justice Center and College Station, TX: Texas A&M University. Public Policy Research Institute, <http://www.attendanceworks.org/wordpress/wp-content/uploads/2010/04/ASR-Mini-Report-Attendance-Readiness-and-Third-Grade-Outcomes-7-8-11.pdf>.

campuses within each district had access to the SBHC. Even at the campus level, the percentage of students enrolled in the SBHC may be too low to affect scores.

- **External variables.** External variables may impact scores. A school with low STAAR® scores may provide increased instruction time or other interventions to improve scores. The influence of this variable alone could potentially outweigh any increase in STAAR® scores that may have resulted from an SBHC being utilized.

Attendance

DSHS is charged with assessing the impact of SBHCs on attendance for all students receiving services with a focus on students with chronic conditions. As illustrated in Table 10, Appendix B, attendance was analyzed for students at the school district and campus levels that received services from the funded SBHCs. The analysis showed an increase in attendance for five of the seven school districts and three of the five school campuses where the SBHCs were located. However, the increase in attendance at the campus and district level is not statistically significant and cannot be attributed to the services provided by the SBHCs.

While there is not a direct link between SBHCs and district or campus level attendance, an SBHC can impact attendance for students with chronic conditions such as asthma.^{10,11} Asthma is one of the most common chronic conditions in the U.S., affecting 7.1 million children, and is the leading cause of school absences.¹² In 2008, asthma accounted for an estimated 14.4 million lost days of school among children nationally.¹³ Students with other chronic conditions including obesity and mental health issues also experienced a large number of school absences compared to students without those chronic conditions.^{14,15}

All DSHS funded SBHC contractors were required to track attendance for a subpopulation of students with asthma, mental health disorders, and students identified as overweight or obese. Of the five contractors, three contractors reported a positive impact on attendance for students receiving services for asthma and mental health conditions. The remaining two contractors did not collect attendance; one contractor had just received funding and was in the start-up phase of establishing an SBHC and identifying students in the subpopulation; and the other contractor experienced difficulties in obtaining attendance information for the subpopulations.

¹⁰ Van Cura M, The Relationship Between School-based Health Centers, Rates of Early Dismissal from School, and Loss of Seat Time. *J Sch Health*. 2010;80:371-377.

¹¹ Geierstanger SP, op. cit.

¹² American Lung Association. Asthma and Children Fact Sheet. October 2012. Available at <http://www.lung.org/lung-disease/asthma/resources/facts-and-figures/asthma-children-fact-sheet.html>. Accessed August 2014.

¹³ Ibid.

¹⁴ Pan L, Sherry B, Park S, Blanck, HM. The Association of Obesity and School Absenteeism Attributed to Illness or Injury Among Adolescents in the United States, 2009. *J Adolesc Health*. 2013 Jan; 52(1):64-9. doi: 10.1016/j.jadohealth.2012.04.003. Epub May 23, 2012.

¹⁵ Gall G, Pagano ME, Desmond SM, Perrin JM, Murphy MJ (2000). Utility of Psychosocial Screening at a School-based Health Center. *J Sch Health*, 70(7), 292.

- One contractor, providing services to 20 students diagnosed with asthma, reported an improvement in attendance for seven students. These seven students were absent 59 days for the school year prior to receiving SBHC services. After receiving services, these seven students were absent 31 days, a decrease in days absent by 47 percent, or by 28 days. One student had a decrease in days absent by 67 percent or a total of 10 fewer absences for the school year.
- Two contractors providing services to 65 students with mental health conditions reported an improvement in attendance for 38 of the 65 students. These 38 students had a total of 222 days absent for the 2010-11 school year and a total of 83 days absent for the 2011-12 school year, resulting in a combined decrease in days absent by 63 percent or by 139 days.

Dropout Rates

Dropout rates are reported annually at the school district and campus levels for grades 7 and 8 and for grades 9-12. Data from the Texas Education Agency Public Education Information Management System for the school districts and school campuses of funded SBHCs were examined. As reported in Table 11, Appendix B, three school districts reported a decrease in dropout rates from the 2010-11 and 2011-12 school years. The direct correlation between the decrease in dropout rates and services provided by the SBHCs cannot be made for the following reasons.

- The decrease in dropout rate is small (not statistically significant).
- The school districts have a large number of students compared to the number of students receiving services at the SBHCs.

There is a direct correlation between discipline and dropout rates. While the numbers in this study do not allow for assessing statistical significance, anecdotal evidence shows that SBHCs can positively impact a student who may be at risk for discipline problems.¹⁶

Improved Student Health for Mental Health Subpopulation

Providers treating students with mental health conditions primarily used assessment tools to measure improvement in mental health conditions. Three contractors that provided services to students with mental health conditions reported the following health outcomes.

- Seven out of 34 students improved their symptoms as evidenced by higher post-test scores on the Pediatric Symptom Checklist.
- Twenty-eight out of 30 students with attention deficit hyperactivity disorder (ADHD) improved their symptoms as documented by scoring higher on the Vanderbilt ADHD Diagnostic Rating Scale.
- Twenty-nine out of 30 students receiving mental health services improved symptoms as documented by receiving higher scores on the Global Assessment Functioning Scale.

¹⁶ Geierstanger SP, op cit.

Conclusion

DSHS-funded SBHCs continue to provide preventive and primary care services to medically underserved students in Texas. A total of 18,241 visits to funded SBHCs were reported; these visits consisted of primary and preventive care and mental and dental health visits. In order to detect and address health problems early to minimize the impact on a student's learning, SBHCs provided a total of 2,277 preventive visits including immunizations, well-child exams, and sports physicals. These funded SBHCs also provided a number of screenings to identify students with dental and mental health problems and students who were overweight and obese.

Funded SBHCs served a large number of uninsured students. The uninsured students accounted for nearly 38 percent of all student visits. Assisting families with obtaining insurance through Medicaid or CHIP provides a path for students to receive additional services from community providers. In addition, it creates a path for SBHCs to achieve sustainability by receiving more reimbursement dollars for services provided.

To meet DSHS contractual requirements, funded SBHCs tracked subpopulations of students with chronic conditions, namely asthma, mental health conditions, and overweight or obesity. Contractors used evidence-based interventions and tracked health and educational outcomes. The overall results were not statistically significant, but anecdotal evidence showed improved health, attendance, and discipline for some students with asthma and mental health conditions. Future reports will continue to provide information on the efficacy of health services delivered to Texas children through funded SBHCs focusing on health and educational outcomes for children with chronic conditions.

Appendix A: List of DSHS Funded School-Based Health Centers

Table 6. DSHS Funded School-Based Health Centers, Fiscal Years 1994 through 2013

Fiscal Year	Applicant	City	Status
2013	Houston ISD	Houston	Open
2012	Chambers County Public Hospital District #1	Anahuac	Open
2011	CHRISTUS Santa Rosa Health System (Comal ISD)	New Braunfels	Open
2009	Lufkin ISD	Lufkin	Closed
2009	Arlington ISD (Workman)	Arlington	Open
2009	Arlington ISD (Nichols))	Arlington	Open
2008	Mathis ISD	Mathis	Open
2008	Frenship ISD	Wolfforth	Closed
2007	Socorro ISD	El Paso	Closed
2006	Bangs ISD	Bangs	Closed
2005	La Marque ISD	La Marque	Open
2005	Tornillo ISD	Tornillo	Closed
2004	Cedar Ridge Charter School	Lometa	Closed
2004	Somerset ISD	Somerset	Closed
2003	Clint ISD	El Paso	Closed
2003	Texas City ISD	Texas City	Open
2002	Galveston ISD	Galveston	Open
2002	Hayes CISD	Buda	Open
2002	Sundown ISD	Sundown	Closed
2001	George I. Sanchez Charter High School	Houston	Closed
2001	Dallas ISD	Dallas	Open
2001	Socorro ISD	El Paso	Closed
2001	Texarkana ISD	Texarkana	Closed
1998	COPC Youth & Family Centers of Parkland Hospital	Dallas	Open
1998	Brownsville Community Health Center	Brownsville	Open
1998	Driscoll Children's Hospital	Corpus Christi	Closed
1997	The Austin Project	Austin	Closed
1997	City of Laredo Health Department	Laredo	Closed
1997	Edcouch Elsa ISD	Edcouch	Closed
1997	Mission Hospital, Inc.	Mission	Open
1997	Olfen ISD	Rowena	Closed
1997	Roosevelt ISD	Lubbock	Closed
1997	Tarrant County Hospital District	Fort Worth	Open
1996	Santa Rosa Children's Hospital	San Antonio	Open
1996	UT School of Nursing	Austin	Open
1995	Angelo State University	San Angelo	Closed

Fiscal Year	Applicant	City	Status
1995	Hidalgo County Health Care Corp.	Pharr	Open
1995	Rogers ISD	Rogers	Closed
1995	Socorro ISD	El Paso	Closed
1995	Wainwright Family Resource Center	El Paso	Closed
1994	Arlington ISD	Arlington	Open
1994	COPC Youth & Family Centers of Parkland Hospital	Dallas	Open
1994	El Centro Del Barrio, Inc.	San Antonio	Closed
1994	Harris County Hospital District	Houston	Open
1994	Hart ISD	Hart	Open
1994	Teen Health Center, Inc.	Galveston	Open
1994	Waco ISD	Waco	Closed

Appendix B: Additional Tables

Table 7. Completed Vaccination Report for San Angelo ISD, Houston ISD, Anahuac ISD, and Hart ISD - Fiscal Year 2012

PreK

ISD	Total Enrollment	Vaccine	# Completed	% Completed
San Angelo	264	Hepatitis A	262	99.2
San Angelo	264	Pneumococcal (PCV)	263	99.6
Houston	16,441	Hepatitis A	13,843	84.1
Houston	16,441	Pneumococcal (PCV)	14,601	88.8
Anahuac	27	Hepatitis A	25	92.5
Anahuac	27	Pneumococcal (PCV)	27	100
Hart	33	Hepatitis A	29	87.8
Hart	33	Pneumococcal (PCV)	31	93.9

Kindergarten

ISD	Total Enrollment	Vaccine	# Completed	% Completed
San Angelo	1,151	DTP/DTaP/DT/Td	1,145	99.4
San Angelo	1,151	Hepatitis A	1,144	99.3
San Angelo	1,151	Hepatitis B	1,149	99.8
San Angelo	1,151	MMR (2 doses)	1,147	99.6
San Angelo	1,151	Polio	1,148	99.7
San Angelo	1,151	Varicella (2 doses)	1,144	99.3

**Kindergarten
(cont.)**

ISD	Total Enrollment	Vaccine	# Completed	% Completed
Houston	16,677	DTP/DTaP/DT/Td	15,375	92.1
Houston	16,677	Hepatitis A	15,953	95.6
Houston	16,677	Hepatitis B	16,124	96.6
Houston	16,677	MMR (2 doses)	15,626	93.6
Houston	16,677	Polio	15,448	92.6
Houston	16,677	Varicella (2 doses)	15,531	93.1
Anahuac	82	DTP/DTaP/DT/Td	80	97.5
Anahuac	82	Hepatitis A	78	95.1
Hart	25	DTP/DTaP/DT/Td	25	100
Hart	25	Hepatitis A	25	100
Hart	25	Hepatitis B	25	100
Hart	25	MMR (2 doses)	22	88
Hart	25	Polio	25	100
Hart	25	Varicella (2 doses)	21	84

Seventh Grade

ISD	Total Enrollment	Vaccine	# Completed	% Completed
San Angelo	1,001	Hepatitis B	999	99.8
San Angelo	1,001	Meningococcal	995	99.4
San Angelo	1,001	MMR (2 doses)	999	99.8
San Angelo	1,001	Polio	998	99.7
San Angelo	1,001	Tdap	995	99.4
San Angelo	1,001	Varicella (2 doses)	988	98.7
Houston	12,858	Hepatitis B	12,080	93.9
Houston	12,858	Meningococcal	9,905	77
Houston	12,858	MMR (2 doses)	12,231	95.1
Houston	12,858	Polio	11,997	93.3
Houston	12,858	Tdap	10,707	83.2
Houston	12,858	Varicella (2 doses)	10,353	80.5
Anahuac	99	Hepatitis B	98	98.9
Anahuac	99	Meningococcal	97	97.9
Anahuac	99	MMR (2 doses)	98	98.9
Anahuac	99	Polio	98	98.9
Anahuac	99	Tdap	97	97.9
Anahuac	99	Varicella (2 doses)	97	97.9
Hart	21	Hepatitis B	19	90.4
Hart	21	Meningococcal	17	80.9

ISD	Total Enrollment	Vaccine	# Completed	% Completed
Hart	21	MMR (2 doses)	20	95.2
Hart	21	Polio	20	95.2
Hart	21	Tdap	20	95.2
Hart	21	Varicella (2 doses)	18	85.7

(Texas Department of State Health Services, 2012-2013)

Table 8. Completed Vaccination Report for San Angelo ISD, Houston ISD, Anahuac ISD, and Hart ISD – Fiscal Year 2013

PreK

ISD	Total Enrollment	Vaccine	# Completed	% Completed
San Angelo	257	Hepatitis A	256	99.6
San Angelo	257	Pneumococcal (PCV)	257	100
Houston	16,235	Hepatitis A	13,704	84.4
Houston	16,235	Pneumococcal (PCV)	14,577	89.7
Anahuac	36	Hepatitis A	36	100
Anahuac	36	Pneumococcal (PCV)	36	100
Hart	<i>Data for Hart ISD not submitted in 2013</i>			

Kindergarten

ISD	Total Enrollment	Vaccine	# Completed	% Completed
San Angelo	1,224	DTP/DTaP/DT/Td	1,213	99.1
San Angelo	1,224	Hepatitis A	1,208	98.6
San Angelo	1,224	Hepatitis B	1,214	99.1
San Angelo	1,224	MMR (2 doses)	1,214	99.1
San Angelo	1,224	Polio	1,216	99.3
San Angelo	1,224	Varicella (2 doses)	1,213	99.1
Houston	17,482	DTP/DTaP/DT/Td	16,030	91.6
Houston	17,482	Hepatitis A	16,525	94.5
Houston	17,482	Hepatitis B	16,708	95.5
Houston	17,482	MMR (2 doses)	16,211	92.7
Houston	17,482	Polio	16,005	91.5
Houston	17,482	Varicella (2 doses)	16,134	92.2
Anahuac	88	DTP/DTaP/DT/Td	88	100
Anahuac	88	Hepatitis A	88	100
Anahuac	88	Hepatitis B	88	100

ISD	Total Enrollment	Vaccine	# Completed	% Completed
Anahuac	88	MMR (2 doses)	88	100
Anahuac	88	Polio	88	100
Anahuac	88	Varicella (2 doses)	88	100
Hart	<i>Data for Hart ISD not submitted in 2013</i>			

Seventh Grade

ISD	Total Enrollment	Vaccine	# Completed	% Completed
San Angelo	1,065	Hepatitis B	1,061	99.6
San Angelo	1,065	Meningococcal	1,047	98.3
San Angelo	1,065	MMR (2 doses)	1,061	99.6
San Angelo	1,065	Polio	1,061	99.6
San Angelo	1,065	Tdap/Td#	1,051	98.6
San Angelo	1,065	Varicella (2 doses)	1,052	98.7
Houston	13,226	MMR (2 doses)	12,573	95
Houston	13,226	Polio	12,141	91.7
Houston	13,226	Tdap/Td#	10,658	80.5
Houston	13,226	Varicella (2 doses)	10,335	78.1
Anahuac	108	Hepatitis B	107	99
Anahuac	108	Meningococcal	106	98.1
Anahuac	108	MMR (2 doses)	107	99
Anahuac	108	Polio	107	99
Anahuac	108	Tdap/Td#	105	97.2
Anahuac	108	Varicella (2 doses)	107	99
Hart	<i>Data for Hart ISD not submitted in 2013</i>			

(Texas Department of State Health Services, 2012-2013)

Table 9. Texas School-Based Health Center Contractors – STAAR® Results at the School District and Campus Levels, 2012-13

Contractor	District	STAAR® percent at Phase-In 1, Level II or above ALL grades, 2012	STAAR® percent at Phase- In 1, Level II or above, ALL grades, All subjects 2013
Tarrant County	Birdville ISD	79	81
Tarrant County	Hurst-Euless Bedford	88	87
Tarrant County	Grapevine-Colleyville ISD	89	89
San Angelo ISD	San Angelo ISD	76	74
Chambers County	Anahuac ISD	76	77
Plainview Foundation for Rural Health Advancement	Hart ISD	56	60
Houston ISD	Houston ISD	73	71
	Campus		
Tarrant County	n/a	n/a	n/a
San Angelo ISD	San Jacinto Elementary	68	60
Chambers County	Anahuac Elementary	65	68
Plainview Foundation for Rural Health Advancement	Hart Elementary	37	44
Plainview Foundation for Rural Health Advancement	Hart JR-SR HS	68	66
Houston ISD	Elrod Elementary	71	71

Table 10. Attendance Rates at the School District and Campus Levels for DSHS-funded School-Based Health Center Contractors, School Years 2009-10, 2010-11, and 2011-12

Contractor	District	2009-10 Attendance (%)	2010-11 Attendance (%)	2011-12 Attendance (%)
Tarrant County	Birdville ISD	95.7	95.9	95.8
Tarrant County	Hurst-Euless-Bedford	96.5	96.8	96.8
Tarrant County	Grapevine-Colleyville ISD	96.5	96.9	97
San Angelo ISD	San Angelo ISD	96.3	96.3	96.6
Chambers County	Anahuac ISD	95.2	95.6	96.0
Plainview Foundation for Rural Health Advancement	Hart ISD	96.0	95.8	96.3
Houston ISD	Houston ISD	95.1	95.4	95.7
Campus				
Tarrant County	n/a	n/a	n/a	n/a
San Angelo ISD	San Jacinto Elementary	96.1	96.5	96.6
Chambers County	Anahuac Elementary	96.2	96.6	96.7
Plainview Foundation for Rural Health Advancement	Hart Elementary	96.8	96.4	96.5
Plainview Foundation for Rural Health Advancement	Hart JR-SR HS	95.0	95.0	96.1
Houston ISD	Elrod Elementary	95.9	96.4	96.1

Table 11. Dropout Rates for Grades 7-8 and 9-12 at the School District and Campus Levels for DSHS-funded School-Based Health Centers, School Years 2010-11 and 2011-12

Contractor	District	Annual Dropout Rate (GR 7-8) 2010-11	Annual Dropout Rate (GR 7-8) 2011-12	Annual Dropout Rate (GR 9-12) 2010-11	Annual Dropout Rate (GR 9-12) 2011-12
Tarrant County	Birdville ISD	0.2%	0.3%	2.7%	2.2%
Tarrant County	Hurst-Euless-Bedford	0.2%	0.0%	0.3%	0.3%
Tarrant County	Grapevine-Colleyville ISD	0.0%	0.0%	0.3%	0.4%
San Angelo ISD	San Angelo ISD	0.2%	0.3%	1.1%	1.8%
Chambers County	Anahuac ISD	0.0%	0.0%	0.2%	0.0%
Plainview Foundation for Rural Health Advancement	Hart ISD	0.0%	0.0%	1.4%	1.4%
Houston ISD	Houston ISD	0.3%	0.4%	3.1%	3.9%
Campus					
Tarrant County	n/a	n/a	n/a	n/a	n/a
San Angelo ISD	San Jacinto Elementary	n/a	n/a	n/a	n/a
Chambers County	Anahuac Elementary	n/a	n/a	n/a	n/a
Plainview Foundation for Rural Health Advancement	Hart Elementary	n/a	n/a	n/a	n/a
Plainview Foundation for Rural Health Advancement	Hart JR-SR HS	0.0%	0.0%	1.4%	1.4%
Houston ISD	Elrod Elementary	n/a	n/a	n/a	n/a