Biennial Report on School-Based Health Centers
Fiscal Years 2014-2015

As Required By
Texas Education Code Section 38.064

Department of State Health Services
December 2016

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Table of Contents

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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. School districts and entities that contract with school districts (e.g., local health departments, hospitals, health care systems, universities, and nonprofit organizations) may receive grant awards to assist 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.

From their inception, the goal of SBHCs was to provide health care to children who were uninsured and had limited access to health care. With an increased focus on showing the impact SBHCs have on improving academic outcomes, DSHS adjusted 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 documented impact on academic outcomes. This report provides preliminary data on outcome measures such as change in body mass index (BMI) percentiles, asthma zones[1], and mental health symptom severity while highlighting the need for a continued emphasis on increased data collection.

Key Points and Findings

Three entities received funding through a contract with DSHS for the support of SBHCs from September 1, 2013 through August 31, 2015. They reported a total of 8,749 visits over the two-year period, consisting of:

- 5,442 visits to a primary care provider
- 1,142 visits to a mental health provider
- 2,165 visits to a dental health provider

These visits covered a wide array of primary care topics including prevention, acute illness, chronic illness, injury, mental health, and dental health. Examples of primary care services include, but are not limited to, diagnosis and treatment, emergency services, preventive health services, health education, laboratory tests, nutrition services, dental care, and social services as defined in Chapter 31 of the Texas Health and Safety Code, the Texas Primary Health Care Services Act.

Among contractors, there were 2,715 recorded prevention visits consisting of Texas Health Steps[2], immunizations, sports physicals, well-check exams, patient counseling, and health screenings. Measures of prevention constitute a significant portion of primary care and include services provided for early detection of disease and disease prevention. Contractors referred clients that required services beyond the scope of primary care to specialists.

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[1] Asthma zones refers to the traffic light system commonly used to assist asthma patients with monitoring their asthma. There are three asthma zones: green (high level of control), yellow (medium to low), and red (no control). A patient's percentage of personal best peak expiratory flow rate determines which zone they fall within and the steps for management of their asthma.

[2] Texas Health Steps exams are comprehensive, preventive exams for students enrolled in Medicaid.

In order to identify individuals with chronic conditions and an increased need for services, funded SBHCs completed numerous screenings.

- 1,196 screenings for dental health
- 2,201 screenings for height and weight
- 341 screenings for mental health

The screenings resulted in the identification of:

- 635 individuals with dental health needs
- 223 individuals as overweight
- 142 individuals as obese
- 251 individuals with mental health needs

For sustainability purposes, SBHCs are required to bill Medicaid, Children's Health Insurance Program (CHIP), and other third-party payers as appropriate. The three SBHCs billed for a total of $452,019 for services provided over the two-year period. They collected $57,725 from Medicaid, $2,037 from CHIP, $8,391from private insurance, and $17,916 from uninsured visitors for total of $86,070 (See Table 2). Of the enrolled students and siblings, 2,452 (49 percent) have Medicaid or CHIP and 1,580 (31 percent) students and siblings are uninsured.

As mandated by the Texas Administrative Code (TAC) and the DSHS School Health Program policies, SBHC contractors tracked subpopulations of students with the following chronic conditions:

- Asthma
- Mental health diagnosis
- Overweight or obese

In alignment with program requirements, contractors used evidence-based interventions to track health and educational outcomes for the aforementioned subpopulations. This biennial report provides preliminary findings regarding outcomes amongst students receiving the evidence-based care provided within the DSHS-funded SBHCs; future reports will continue to track any changes in outcomes and discuss any patterns as they develop.

Introduction

In accordance with Texas Education Code (TEC), Section 38.063, DSHS supplies funding, as available, to school-based health centers (SBHCs) in Texas. The Department of State Health Services (DSHS) is responsible for administering a program to award grants to school districts, 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. As outlined in TEC, Section 38.064, DSHS is required to issue a biennial report to the Legislature stating relative efficacy of services provided during the preceding two years and any increased academic performance of students served by the funded SBHCs with an emphasis on:

- Increased attendance, including attendance information regarding students with chronic illness
- Decreased drop-out rate
- Improved student health
- Increased student immunization rates
- Increased student participation in preventive health measures, including routine physical examinations and checkups in accordance with Texas Health Steps program[3]
- Improved performance on student assessment instruments

Background

In 2013, 13 percent of children living in Texas were uninsured and 25 percent of Texas children were living in poverty.[4] Uninsured children, children living in poverty, and children from minority racial and ethnic backgrounds are at an increased risk of experiencing unmet health care needs, facing a lack of opportunities for health maintenance, and suffering chronic diseases such as asthma and emotional disturbances or mental illness.[5,6] Research supports the notion that healthier students are more successful learners and that health and educational disparities have reciprocating effects upon each other.[7] Adverse health outcomes negatively impact school connectedness, absenteeism, and school drop-out, which are linked to academic performance.[7,8,9]

School personnel regularly interact with students experiencing physical and mental health issues, and their location creates a unique opportunity to track students' health and academic status

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[3] Texas Health Steps exams are comprehensive, preventive exams for students enrolled in Medicaid

[4] Annie E. Casey Foundation. Kids Count Data Center: Uninsured Children (0-18) Texas. http://datacenter.kidscount.org/data/tables/3185-uninsured-children-0-18?loc=45&loct=2#detailed/2/any/false/36,868,867,133,38/any/8408,8409. Accessed November 2015.

[5] Keeton V, Soleimanpour S, Brindis CD. School-Based Health Centers in an Era of health Care Reform: Building on History. *Current Problems in Pediatric and Adolescent Health Care*. 2012; 42(6):132-158. doi:10.1016/j.cppeds.2012.03.002

[6] Rosenbaum S, Blum R. How Healthy Are Our Children? *Future of Children*. 2015; 25(1):11-34.

[7] Basch C E. Healthier Students are Better Learners: High-Quality, Strategically Planned, and Effectively Coordinated School Health Programs Must Be a Fundamental Mission of Schools to Help Close the Achievement Gap. Journal of School Health. 2011; 81(10):650-662.

[8] Moonie S. The Relationship Between School Absence, Academic Performance, and Asthma Status. Journal of School Health. 2008; 78(3):140-148.

[9] Strolin-Goltzman J, Sisselman A, Melekis K, Auerbach C. Understanding the Relationship between School-Based Health Center Use, School Connection, and Academic Performance. *Health & Social Work*. 2014; 39(2):83-91. doi: 10.1093/hsw/hlu018.

longitudinally, while building relationships. To address these student issues impacting achievement, 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.[10] 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. A primary care provider, primarily a nurse practitioner or a physician's assistant, staff SBHCs. Other providers such as a licensed professional counselor, a dentist, or a nutritionist may also be a part of a SBHCs' staff. 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 referrals
- 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, a 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. The consent form must indicate all services the SBHC will be providing 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 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.

The 81st Legislature, Regular Session, 2009, amended TEC, Sections 38.063 and 38.064, 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. In addition, legislative changes allowed grant program funds to be used to establish and operate a SBHC and

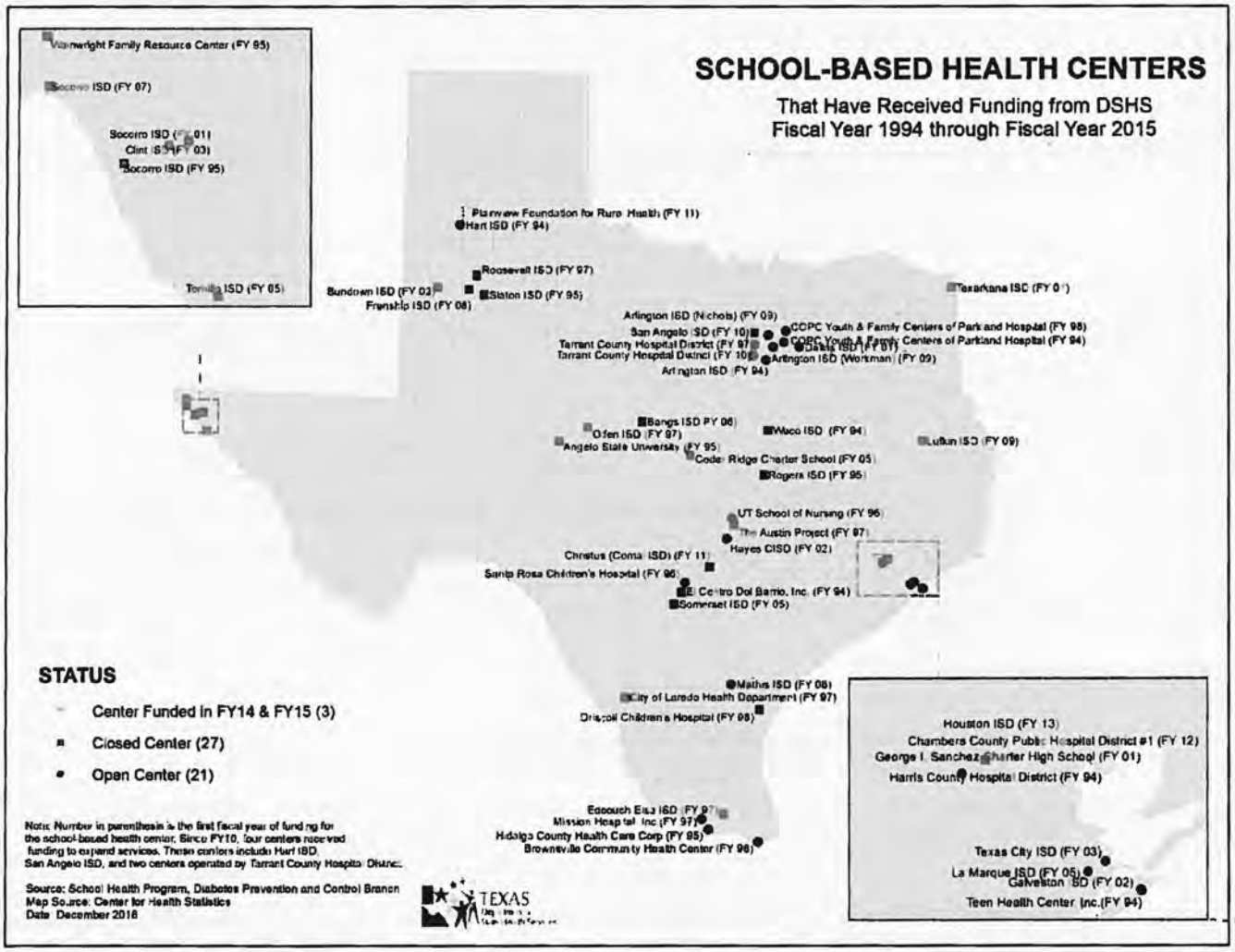
[10] Texas Association of School-Based Health Centers. October 2008. Available at http://www.tasbhc.org/. Accessed March 2016.

expand services within existing SBHCs. There was also increased focus on children with chronic conditions as it relates to intermediate educational outcomes, such as attendance.

In fiscal year 2010, implementation of the new sections of statute began with a hospital district contract to expand mental health services within existing SBHCs. Beginning in fiscal year 2011, when DSHS developed the new request for proposal, there was a shift from a three-year to a five-year contract period and the addition of performance measures to assess the impact of SBHCs for students with chronic conditions.

Since fiscal year 1994, DSHS has funded 48 new SBHCs and expanded services in four established SBHCs. As of fiscal year 2015, 24 of the 48 SBHCs were still in operation. The map below illustrates the location and status of funded SBHCs. A list of these SBHCs are in Appendix A.

Figure 1: Map of DSHS-Funded SBHCs Since 1994



In the past, the primary focus of DSHS funding for SBHCs was to provide health care to children who 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. The contract required contractors to select from of five chronic conditions as part of a sub-population to provide disease management and to track student outcomes.

In fiscal year 2013, DSHS began requiring contractors serving students with chronic conditions to report on uniform performance measures. In fiscal year 2015, SBHC contractors began reporting performance measures using the web-based Program Management and Tracking System (PMATS) for SBHCs.

Funded Contractors

During the 2014-15 biennium, DSHS-funded three contractors, including an independent school district and two nonprofit organizations; one of the nonprofits was a hospital district and the other was a community-based organization. The DSHS-funded contractors are listed below with the funding cycle years indicated:

- Chambers County Public Hospital District #1 (2012-16)
- Houston Independent School District (2013-17)
- Plainview Foundation for Rural Health Advancement (2011-15)

Providing high-quality primary care with an emphasis on prevention is a common characteristic of all SBHCs while meeting the diverse needs of each student in a location supportive of school attendance. DSHS charged the above SBHCs with seeking input from the local school health advisory council (SHAC), parents, and other invested stakeholders to ensure the reflection of the community in all aspects of SBHC operations. This included making decisions, such as which additional services to offer and whether individuals beyond the campus or district level would be eligible to use the SBHC.

The chronic conditions selected by contractors for disease management and outcome tracking are asthma, mental health, and overweight/obesity. Houston ISD tracked obesity and asthma, while Chambers was tracking mental health and asthma. Plainview (Hart ISD) tracked obesity and mental health.

Process Measures

Utilization of DSHS-Funded School-Based Health Centers

During the 2014-15 biennium, funded SBHCs reported a total of 8,749 visits (Figure 2); 62 percent of those visits were by primary care providers, while 13 and 25 percent were by mental health providers and dental health providers, respectively (Figure 3). Two of the funded centers (Houston and Plainview) had the capacity to address dental health issues. Plainview Foundation for Rural Health Advancement served a geographically large area due to high need and thus reported many services to community members in addition to students.

Figure 2. All Visits by Provider Type
Fiscal Years 2014-2015

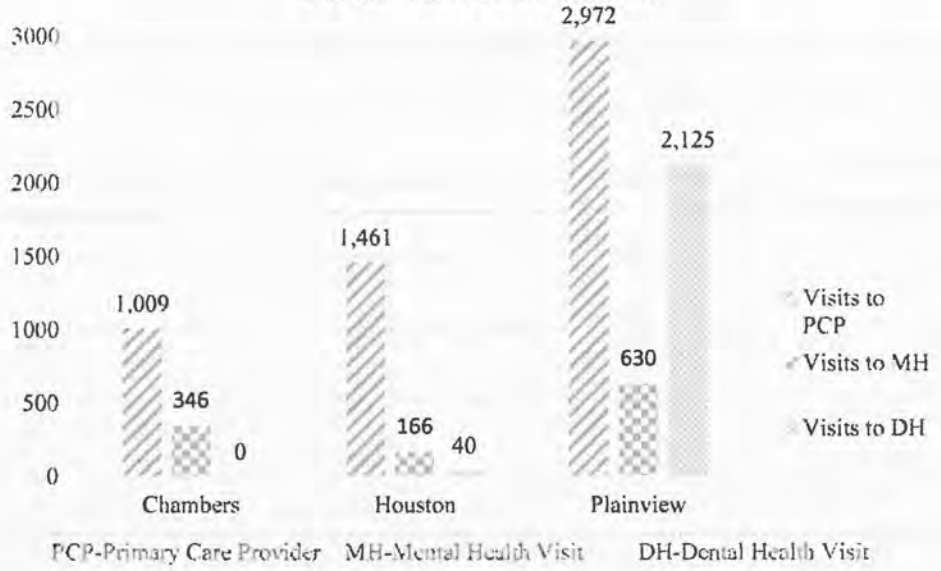
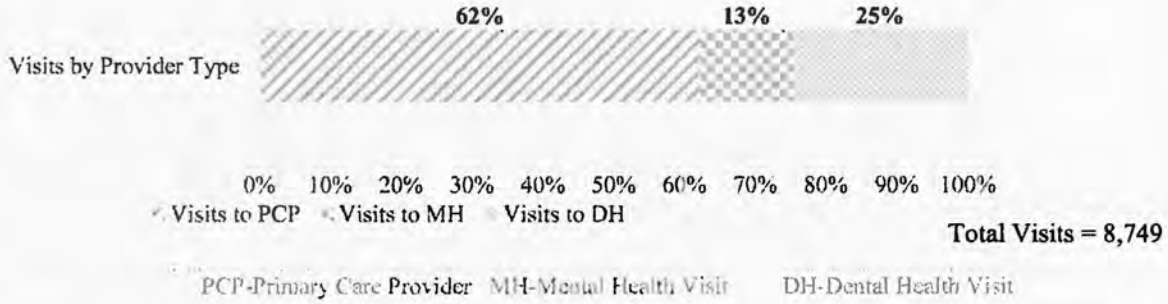


Figure 3. Visits by Provider Type as a Percentage of Total Visits
Fiscal Years 2014-2015



Payment Methods for School-Based Health Center 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 eligible 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 beyond the scope of the expertise of the health care provider within the SBHC. By screening participants for coverage, funded SBHCs identified a total of 2,452 students and siblings insured through Medicaid or CHIP, while 1,580 lacked insurance. SBHCs can serve as the medical home for the uninsured, thus assuring access to health care services.

Table 1 displays the number of students and siblings enrolled in the funded SBHCs by insurance type. Note: enrollment for students and siblings equals 5,036 and total enrollment equals 5,281. Health insurance status is unavailable for adult community members enrolled.

Table 1. Number of Students and Siblings Enrolled in Funded SBHC, by Insurance Type Fiscal Years 2014-2015

Health Insurance Status	# Enrolled	% Enrolled
Medicaid	2,205	44%
CHIP	247	5%
Private Insurance	658	13%
Uninsured	1,580	31%
Self-Pay	291	6%
Other	55	1%
Total	**5,036**	**100%**

Table 1 Note: Enrollment numbers include students and siblings; adult community member insurance status is unavailable thus not included. Percentages are a percent of total students and siblings enrolled. (Texas Department of State Health Services, 2014-2015)

Funded SBHCs billed for a total of $452,019 and received $86,070 for services provided. Table 2 provides a breakdown of amounts billed and received based on health insurance status. Chambers County Public Hospital District #1 did not report billing and receiving for fiscal year 2014 due to data collection errors. The numbers provided here are based on all amounts reported by funded contractors. While 32 percent of the total billed to Medicaid was received, only 10 percent of the total billed to uninsured individuals was received, highlighting the value in SBHC staff providing assistance to families in obtaining insurance. Assisting families in securing insurance, mainly through Medicaid, allows SBHCs to receive more reimbursement for services provided. Students enrolled in Medicaid, as compared to those who are uninsured, are also more likely to receive additional health care services through community providers.

Table 2. Breakdown of Amount Billed and Received During Fiscal Year 2014 and 2015

Insurance Type	Amount Billed	Amount Collected
Medicaid	$182,351.57	$57,725.41
CHIP	$11,545.21	$2,037.50
Private insurance	$72,189.07	$8,390.86
Uninsured	$185,933.20	$17,915.90
Total	**$452,019.05**	**$86,069.67**

Table 2 Note: Chambers County Public Hospital District #1 did not report amount billed or amount collected by health insurance type in 2014; therefore this table does not include data from Chambers County 2014. (Texas Department of State Health Services, 2014-2015)

Referrals to Community Providers

During the preceding two years, funded SBHCs referred a total of 444 students to a variety of community providers for care beyond the scope of the center. Of the referred students, outside providers saw 335, delivering a total referral completion rate of 75 percent. A referral completion rate is the percentage of students who followed up with a community provider once referred.

- The highest number of referrals were to dental health providers, which also had the lowest completion rate at 51 percent.
- Mental health were the second most common type, with a completion rate of 88 percent.
- Medical specialist were the third most common type, with an 84 percent completion rate.
- Substance abuse referrals had the highest completion rate at 100 percent.
- Primary care referrals reported a 95 percent completion rate.

Insurance status, wait time, transportation, and a limited number of available specialists present common barriers to accessing the specialty care and impact completion rates.

Immunizations

The School-Based Health Alliance's most recent census report (2010-11) revealed that the majority of SBHCs throughout the nation report being well-positioned and well-equipped to provide immunizations, specifically to the underserved adolescent population.[11] SBHCs help students receive immunizations required for school attendance. The Texas Administrative Code, Title 25 Health Services, Sections 97.61-97.72 mandates school immunizations for Texas students. The required vaccines are:

- Diphtheria
- Tetanus
- Pertussis
- Measles, mumps, and rubella
- Hepatitis A and B
- Varicella
- Polio
- Meningococcal

Providing immunizations is a required service for all DSHS-funded SBHCs. During the previous biennium, contractors reported 1,381 visits for immunizations resulting in a total of 2,665 immunizations administered.

DSHS collects immunization rates from school districts for kindergarten and seventh grades. For the 2013-14 and 2014-15 school years, funded SBHCs at elementary campuses in two of the school districts obtained immunization data, with one school district not reporting. Hart Independent School District did not report immunization information; therefore, information is not available for Plainview Foundation for Rural Health Advancement. This report gives results by required vaccine. The results are located in Table 7, Appendix B. While the results show an

[11] School-Based Health Alliance. 2010-2011 Census Report. Available at http://www.sbh4all.org/wp-content/uploads/2015/02/CensusReport_2010-11CensusReport_7.13.pdf. Accessed November 2015.

increase in compliance for certain vaccines, the extent to which SBHCs administering immunizations to students in kindergarten and seventh grades contributed to the increase in compliance rates is unknown.

Preventive Health Services

In addition to immunizations, SBHCs provide a number of preventive services 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. Funded contractors provided a total of 403 Texas Health Steps exams and reported 931 other preventive visits (excluding immunization or Texas Health Steps visits). Additionally, SBHCs provided a number of health screenings resulting in the identification of student health issues and the initiation of treatment (Table 3).

Table 3. Health Screenings Performed at Funded SBHCs by Type

Type of Screening	# of Students Screened	# of Students Identified
Dental	1,196	635 Dental Issues
Height and Weight	2,201	223 Overweight 142 Obese
Mental Health	341	251 Mental Health Issues

Preventive services address factors 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.[12]

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 to track a minimum of 30 students with a focus on either 1 or 2 chronic conditions. They tracked a minimum of 15 students 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.

[12] 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.nasbhc.org/atf/cf/%7BCD9949F2-2761-42FB-BC7A-CEE165C701D9%7D/WHITE%20PAPER%20CSH%20AND%20MH%20FINAL.PDF. Accessed August 4, 2014.

DSHS assigned uniform performance measures to contractors serving students with the same chronic condition. In addition, DSHS used the web-based PMATS for SBHCs to collect performance measures. Table 4 lists the required performance measures for the three chronic conditions selected and tracked by the SBHC contractors.

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

Subpopulation	Required Performance Measures
Asthma	• Obtain and document peak air flow measure for every student at every visit[13] • 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	• 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	• 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

Subpopulation Demographics

Over the biennium, funded SBHCs tracked a total of 304 unique students in 1 or more of the following subpopulations: asthma, mental health, or overweight/obesity. There were 81 students tracked for asthma, 101 tracked for mental health, and 137 tracked for overweight/obesity. Fifteen students were tracked in two subpopulations simultaneously. Of the 304 unique students, health insurance type was available for 251 students and Table 5 displays the insurance type and visits of those with data available.

Table 5. Students Tracked in Subpopulations by Insurance Type Fiscal Years 2014-2015

Health Insurance Status	# Enrolled	% Enrolled	# Visits	% Visits

[13] The number and frequency of visits varies based on the individual students' needs.

Medicaid	116	46%	594	45%
CHIP	14	6%	59	4%
Private Insurance	30	12%	238	18%
Uninsured	81	32%	384	29%
Other	10	4%	39	3%
Total	**251**	**100%**	**1,314**	**99%**

Table 5 Note: Table contains data for 251 of the 304 tracked students; percentages are rounded and may total 99-101%. (Texas Department of State Health Services, 2014-2015)

Table 6 depicts the demographics of students tracked in subpopulations during fiscal year 2015 by all contractors. Due to the transition to PMATS reporting system, incomplete data is available for fiscal year 2014.

Table 6. Demographics of Students with Chronic Conditions Identified in Texas SBHCs (FY 2015)[14]

Subpopulation	Asthma	Mental Health	Overweight/Obesity
Number of students	40	59	72
Gender			
Female	15	32	33
Male	25	27	39
Race\Ethnicity			
Asian	1	2	1
Black	7	6	5
Hispanic	19	26	47
White	11	25	19
Other	2	0	0
Insurance Status			
Medicaid	20	29	43

[14] In FY 2014 students could be selected as both Caucasian and Hispanic, (race/ethnicity were separate) in 2015 that was changed (race/ethnicity were together). FY 2015 data was used since 2014 is missing many demographic fields and above race/ethnicity discrepancy.

CHIP	1	8	1
Private	8	17	4
None	10	3	20
Other	1	2	3
Unknown	0	0	1

(Texas Department of State Health Services, 2015)

Chronic Disease Outcomes: Changes in Student Health

Preliminary data showcasing changes in student health status for tracked students with an identified chronic disease are included in this report.

Improved Student Health for Asthma Subpopulation

For students in the asthma subpopulation, funded SBHCs took peak flow readings, established asthma action plans, assessed for asthma symptoms, and provided evidence-based asthma education in a coordinated fashion per the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 3 (EPR 3) recommendations.[15]

In monitoring asthma exacerbations, a system utilizing asthma zones (green, yellow, red) helps in determining asthma control. Green represents a high level of control, yellow medium-low, and red no control. Of the students tracked for asthma, 41 percent were in the green zone during their first visit. By the sixth visit, 80 percent of the tracked students came to the clinic in the green zone, indicating that they had fewer asthma symptoms.

In looking at the number of symptoms that students reported, during the first visit, 18 percent of the students reported 2 or more symptoms with an additional 41 percent reporting at least 1 symptom. After 6 visits, 40 percent of the students reported one symptom with 60 percent of students reporting no symptoms of asthma.

Improved Student Health for Mental Health Subpopulation

For students in the mental health subpopulation, funded SBHCs provided evidence-based, best practice education sessions and assessed symptom severity, as well as mental health diagnosis specific to each visit.

There were 59 students tracked for mental health services during the 2 year period. Of those tracked, 31 had a decrease in absences or disciplinary incidents. There were 304 visits to a mental health provider, with 9.8 visits on average. However, there was insufficient data to generalize improvement in attendance or decrease in disciplinary incidents.

[15] National Asthma Education and Prevention Program (NAEPP). Expert Panel Report 3. 2007. Available at http://www.nhlbi.nih.gov/health-pro/guidelines/current/asthma-guidelines/full-report. Accessed December 2015.

Improved Student Health for Overweight/Obesity Subpopulation

For students in the overweight/obesity subpopulation, funded SBHCs provided routine BMI documentation and obesity prevention messages.

Contracted SBHCs tracked a total of 137 students for obesity, with 108 of the students enrolled in kindergarten through fifth grade. Younger students made up 386, or 74.7 percent, of the tracked clinic visits. Of the total number of students tracked, 91.2 percent qualified for free lunches through the federal school nutrition program.

In determining absentee rates of the students receiving services for overweight or obesity, 42 students decreased their absentee rate, while 32 had an increase in absenteeism. The absentee rate for 9 students did not change and there was no data for an additional 54 students. Additional data collection will be necessary to determine if there are any trends associated with the number of visits or student participation in education sessions.

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 3-11 during the 2002-03 school year. In 2012, the State of Texas Assessments of Academic Readiness (STAAR®) test replaced the TAKS test.

In April 2015, the Texas Education Agency (TEA) announced that STAAR® math assessments would be excluded from the state accountability system for grades 3-8 for the 2014-15 school year. To determine the level of improvement, four years of STAAR® scores were analyzed as available, and three years otherwise.

Table 8 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:

- One SBHC contractor went from a pass rate of 76 percent to 82 percent on the STAAR® test from 2012 to 2015.
- The other 2 contractors maintained STAAR® scores within a 2 to 4 percent range, ranging from a low of 56 percent to a high of 71 percent over the reporting period.

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

- Reporting. The TEA reports scores at the campus and district levels. While two of the three SBHCs served multiple campuses within the district, not all 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 resulting from the utilization of an SBHC.

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. DSHS analyzed attendance for students at the school district and campus levels that received services from the funded SBHCs. The analysis showed an increase in attendance from the 2012-13 school year to the 2013-14 school year for Chambers and Plainview (see Table 9, Appendix B). However, the increase in attendance at the campus and district level is not statistically significant and not attributable to the services provided by the SBHCs.

While there is not a direct link between SBHCs and district or campus level attendance, a SBHC can impact attendance for students with chronic conditions such as asthma.[16,17] 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.[18] In 2008, asthma accounted for an estimated 14.4 million lost days of school among children nationally.[19] 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.[20, 21]

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. Significant improvement was reported, as follows:

- Plainview Foundation for Rural Health Advancement reported that 14 of the 26 students tracked in the mental health subpopulation during fiscal year 2015 decreased their absences by a total of 35 days compared to the prior year.
- Plainview Foundation for Rural Health Advancement also reported that 11 of the 17 students tracked in the overweight/obesity subpopulation during fiscal year 2015 decreased their absences by a total of 40 days compared to the prior year.
- Chambers County Public Hospital District #1 reported that 9 of the 33 students tracked in the mental health subpopulation improved their attendance between fiscal years 2014 and 2015, resulting in a total of 53 fewer absences.

Dropout Rates

School districts report dropout rates annually for grades 9-12. DSHS examined data from the TEA Public Education Information Management System for the school districts with funded SBHCs. As reported in Table 10, Appendix B, two school districts reported a decrease in dropout rates from the 2011-12 and 2012-13 school years. Data for 2013-14 school year was not

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[16] 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.
[17] Geierstanger SP, op. cit.
[18] 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.
[19] Ibid.
[20] 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.
[21] 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.

available for this report. DSHS could not make the direct correlation between the decrease in dropout rates and services provided by the SBHCs 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.

Additional longitudinal data may begin to show slight changes; however, there are too many variables to track that would impact dropout rates within a district.

Conclusion

DSHS-funded SBHCs continue to provide preventive and primary care services to medically underserved students in Texas. Funded SBHCs reported a total of 8,749 visits; these visits consisted of primary and preventive care, as well as 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 2,715 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 31 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

Figure 1. DSHS-Funded School-Based Health Centers, Fiscal Years 1994 through 2015

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 Middle School)	Arlington	**Open**
2009	Arlington ISD (Nichols Junior High)	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

* Hart ISD is now served through the contract with Plainview Foundation for Rural Health Advancement.

Appendix B: Additional Tables

Table 7. Immunization Rates for Houston ISD and Anahuac ISD* for 2013-14 School Year

School/ISD	Vaccine	Kindergarten Coverage	7th Grade Coverage
Houston ISD	DTP/DTaP/DT/Td	92.3	80.9
Houston ISD	Hepatitis A	94.1	N/A
Houston ISD	Hepatitis B	95.2	92.1
Houston ISD	Meningococcal	N/A	71.7
Houston ISD	MMR (2 doses)	92.9	94.4
Houston ISD	Polio	91.8	91.6
Houston ISD	Varicella (2 doses)	92.4	87.1
Anahuac ISD	DTP/DTaP/DT/Td	100	98.9
Anahuac ISD	Hepatitis A	99	N/A
Anahuac ISD	Hepatitis B	100	100
Anahuac ISD	Meningococcal	N/A	98.9
Anahuac ISD	MMR (2 doses)	100	100
Anahuac ISD	Polio	100	100
Anahuac ISD	Varicella (2 doses)	100	98.9

*Anahuac ISD is served by Chambers County Public Hospital District #1 SBHC.

Table 8. STAAR Test Scores for Anahuac ISD, Houston ISD, and Hart ISD* (Percent Passing)

		STAAR			
Chambers		FY 2012	FY2013	FY2014	FY2015
	District	76%	77%	80%	82%
	Anahuac Elem	65%	68%	75%	78%
Houston		FY 2012	FY2013	FY2014	FY2015
	District	73%	71%	71%	68%
	Elrod Elem	71%	71%	73%	73%
Plainview		FY 2012	FY2013	FY2014	FY2015
	District	56%	60%	59%	58%
	Hart Elem	37%	44%	55%	66%
	Hart Jr/Sr HS	68%	66%	61%	55%

* Anahuac ISD is served by Chambers County Public Hospital District #1 SBHC. Hart ISD is served by Plainview Foundation for Rural Health Advancement.

Table 9. Attendance Rates for Houston ISD, Anahuac ISD, and Hart ISD; 2010-11, 2011-12, 2012-13, 2013-14

		Attendance			
Chambers		2010-11	2011-12	2012-13	2013-14
	District	95.6%	96.0%	95.9%	96.3%
	Anahuac Elem	96.6%	96.7%	96.8%	96.9%
Houston		2010-11	2011-12	2012-13	2013-14
	District	95.4%	95.7%	95.8%	95.6%
	Elrod Elem	96.4%	96.1%	96.1%	96.4%
Plainview		2010-11	2011-12	2012-13	2013-14
	District	95.8%	96.3%	96.5%	96.9%
	Hart Elem	96.4%	96.5%	96.5%	97.0%
	Hart Jr/Sr HS	95.0%	96.1%	96.5%	96.8%

Table 10. Drop Out Rates for Houston ISD, Anahuac ISD, and Hart ISD; 2010-11, 2011-12, 2012-13*

	Drop Out Rates		
Chambers	2010-11	2011-12	2012-13
	0.0%	0.0%	0.0%
Houston	2010-11	2011-12	2012-13
	0.3%	3.9%	3.1%
Plainview	2010-11	2011-12	2012-13
	0.0%	1.4%	1.3%

* Data for 2013-14 is not available.