



**Annual Report on School-Based Health Centers  
Fiscal Year 2008**

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Commissioner**

## **Fiscal Year 2008 Annual Report on School-Based Health Centers Executive Summary**

### **Key Findings for Fiscal Year 2008 (FY08)**

- Four school-based health centers (SBHC) received funding from the Texas Department of State Health Services (DSHS). Two SBHCs were in their first year of funding; one was in its second year; and one was in its third year.
- Over 13,000 students across 20 campuses had access to DSHS-funded SBHCs. The centers reported a total of 6,304 visits. An additional 1,220 non-students, including siblings and community members, were enrolled in SBHC services.
- Minor illnesses and preventive health services were the most frequently cited reasons for visits to the funded SBHCs. Asthma was the most frequently treated chronic condition.
- One SBHC in its second year of funding continued to implement a model that includes dental services. These services were provided one day a week by a volunteer dentist and other dental providers. A total of 784 dental visits were reported in FY08 at this one SBHC. This was an increase of 433 visits or 45 percent over the number of visits in FY07.
- SBHC directors reported billing Medicaid \$253,373. Of this amount, the centers received \$159,482 or 63 percent in reimbursements.

### **Future Activities**

- Strategies will be developed to recruit schools with high at-risk or underserved populations to apply for funding. Title 1 schools will be sent e-mail notification of the FY10 Competitive Request for Proposals for School-Based Health Centers.
- SBHCs will continue to track the attendance of students with chronic conditions such as asthma and diabetes.
- DSHS program staff will continue to provide technical assistance to funded sites. Training will be provided at contractors' meetings on various issues including processing Medicaid claims.
- DSHS will continue to:
  - Serve as a resource for SBHCs in Texas through its website.
  - Collaborate with the Texas Association of School-Based Health Centers (TASBHC).
  - Reduce barriers by providing technical assistance to school districts that pursue DSHS grant funding.

## **Fiscal Year 2008 Annual Report on School-Based Health Centers**

Texas Education Code (TEC), Chapter 38, §38.064, requires the Commissioner of State Health Services to issue an annual report to the Legislature about the efficacy of school-based health centers (SBHCs), including centers that receive funds from the Department of State Health Services (DSHS). This report focuses on SBHCs that received funding from DSHS in Fiscal Year 2008 (FY08).

### **Background**

According to the United States (US) Census Bureau, in 2007 21.4 percent of children in Texas younger than 18 years of age were uninsured. Uninsured children are less likely to receive health care.<sup>i</sup> School personnel see a large number of students with physical and mental health conditions. Left untreated, these conditions may negatively affect a child's school attendance, academic performance, attention span, impulse control, and ability to refrain from self-destructive behavior. In order to address these issues, DSHS provides start-up funding for SBHCs in areas where students are in most need of health care.

Since the first SBHC in the US opened in Dallas in 1970, SBHCs have been a means of providing basic health care to medically underserved children and adolescents. Today, there are nearly 90 SBHCs serving Texas children.<sup>ii</sup> The centers use a comprehensive, affordable, multi-disciplinary approach to address the health care needs of school children, many of whom do not receive health care elsewhere. Often an array of services is provided, including but not limited to:

- 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, and
- Basic health education

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

SBHCs typically operate independently with the school nurse being 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. In 1999, the 76<sup>th</sup> Legislature passed House Bill 2202, which amended TEC Chapter 38, and required the Commissioner of State Health Services to administer a grant program to assist school districts with the costs of operating SBHCs. The program currently allows a maximum three years of funding per funded school district. Funding ranges from \$125,000 in year one to \$62,500 in year three.

Since fiscal year 1994, 42 SBHCs have been funded and of those, 27 SBHCs were still in operation in FY08 (See map on page 4.).

### **Funded School Districts in FY08**

During FY08, DSHS funded the following four school districts:

- Frenship Independent School District (ISD) – 1st year of funding
- Mathis ISD – 1st year of funding
- Socorro ISD – 2nd year of funding
- Bangs ISD – 3rd year of funding

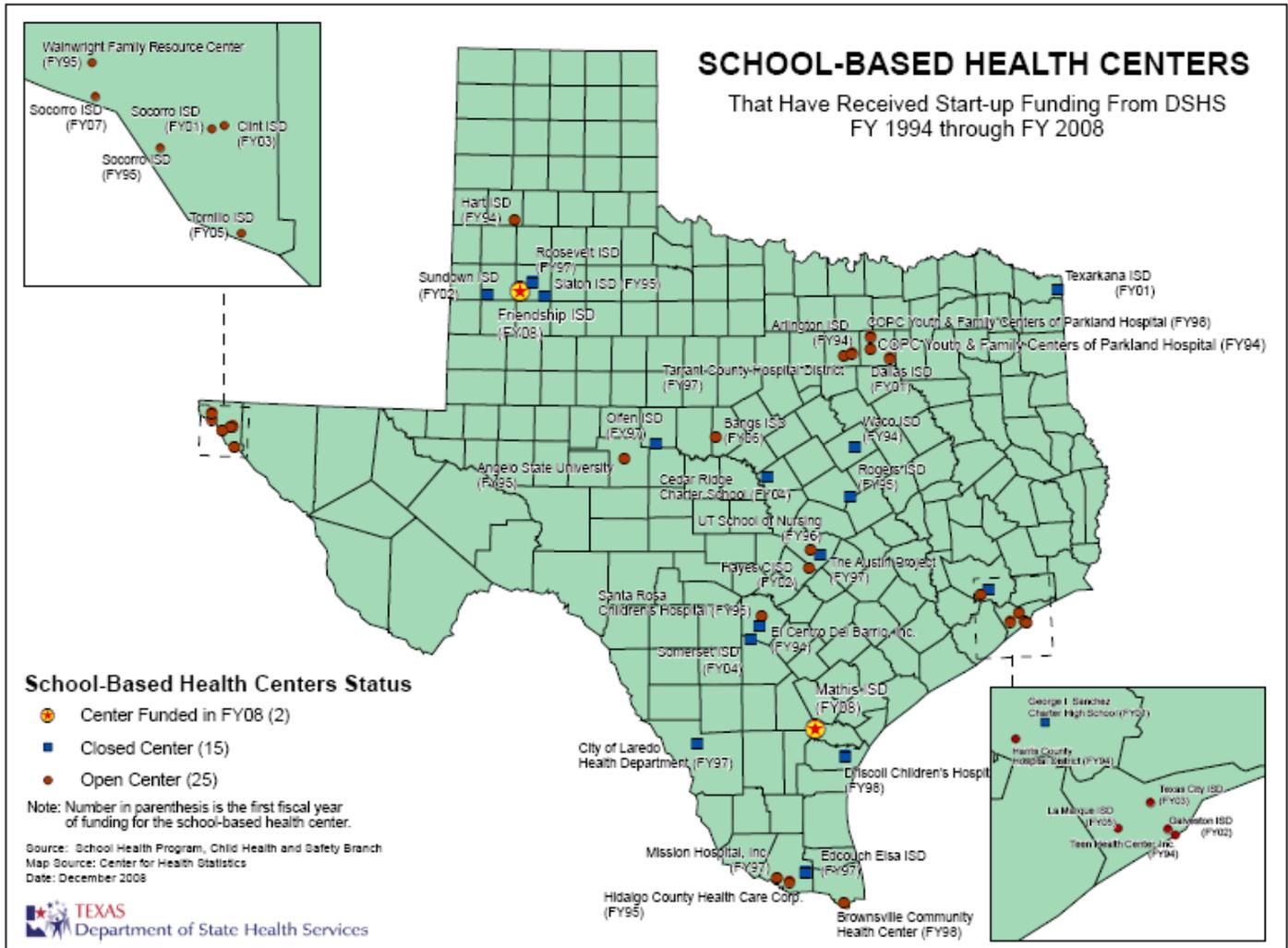
In FY08, each of the four funded school districts established or continued to operate a SBHC that met the needs of its respective school population. While all SBHCs provide primary and preventive health care services and share other common characteristics, the model for providing services, types of services, and whether the center will serve families and community members is decided at the local level. School districts receive input from school and community stakeholders, including the school health advisory council (SHAC). As required by law, SHACs are comprised of community members including parents and students. The SHAC makes recommendations to the district regarding services and policies for the SBHC, ensuring that community values are reflected in the operation of each center.

Socorro ISD, which covers 136 square miles in El Paso County, implemented the “mobile” SBHC model. This model meets the needs of a large, rural district where nearly 80 percent of the students are economically disadvantaged and more than half have no primary care provider. Staffed by resident pediatricians from Texas Tech University Health Sciences Center, the mobile unit travels to nine schools on a rotating schedule providing primary and preventive health care services.

Bangs ISD is located in a rural area near Brownwood and serves three campuses with more than 1,000 students. Bangs ISD implemented a SBHC model that includes the provision of dental services in addition to preventive and primary health care services. Staffed by a volunteer dentist and other dental providers one day a week, Bangs reported 784 dental visits in FY08.

The other two school districts, Frenship ISD and Mathis ISD, implemented a more traditional SBHC model housing the center at one campus and making it accessible to other schools within the district. In Frenship ISD, the SBHC is located at the elementary school and serves the other eight schools within the district.<sup>iii</sup> In Mathis ISD, the SBHC is located at the elementary school

and serves three other campuses in the district. Both school districts provide preventive and primary health care services.



## Evaluation Methods

Evaluating whether SBHCs have an impact on educational outcomes is a key area of interest for DSHS. Multiple sources of quantitative and qualitative data were analyzed for this report, including academic achievement, attendance rates, graduation rates, and dropout rates. In addition, the report highlights service utilization data identified in SBHC quarterly reports and Texas Education Agency (TEA) Academic Excellence Indicator System data. The data available for district outcomes are only a snapshot and cannot be causally linked to the impact of the SBHC. For the purpose of this report, SBHC district measures were compared to available state measures.

## Demographics

### Access to Care

During FY08, DSHS-funded SBHCs were well utilized by students.

- Over 13,000 students on 20 campuses had access to services.
- Among the four districts that received funding in FY08, three are located in rural areas and one is located in a suburban area:
  - Socorro ISD is located in a rural area near El Paso.
  - Bangs ISD is located in a rural area near Brownwood.
  - Frenship ISD is located in a suburban area near Lubbock.
  - Mathis ISD is located in a rural area near Brownsville.

### Enrollment

In FY08, nearly 2,000 students were enrolled for SBHC services. In addition, 1,220 non-students, including siblings and other family/community members, were also enrolled for SBHC services. Table 1 illustrates the student population for each school district with the number and percent of students enrolled in the SBHC.

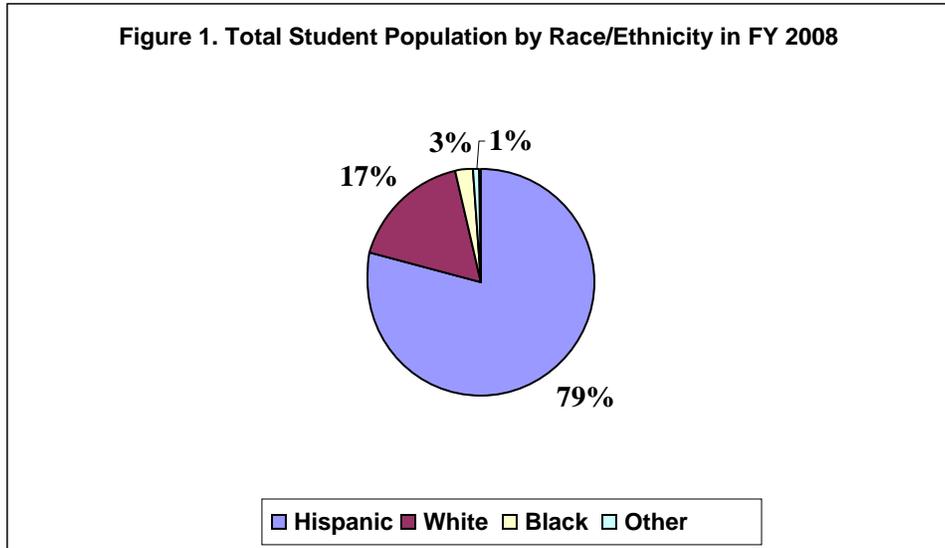
**Table 1. Enrollment by School District**

<b>School District Served</b>	<b>Total Student Population</b>	<b>Number of Students Enrolled in SBHC</b>	<b>Percent of Student Population Enrolled in SBHC</b>
Frenship ISD	2,152	490	22.8
Mathis ISD	1,897	99	5.2
Socorro ISD <sup>IV</sup>	8,176	1,046	12.8
Bangs ISD	1,125	356	31.6
<b>Totals</b>	<b>13,350</b>	<b>1,991</b>	<b>14.9</b>

According to SBHC data submitted to DSHS, the four SBHCs serving 20 campuses enrolled a total of 1,991 students, which represented 15 percent of the student population. Bangs had the largest percent of students enrolled and Mathis had the smallest percent. Several factors explain the variation in SBHC enrollment numbers, including the length of time the SBHC has been open. Bangs has been open for three years, Socorro for two years, and Frenship and Mathis have been open for less than one year. While Frenship and Mathis started their SBHCs in FY08, Mathis encountered a longer delay in enrolling students. The delay was in part due to students not being able to choose the SBHC as their primary care provider under Medicaid. Mathis has resolved this issue and enrollment numbers are expected to be higher in FY09.

Figure 1 illustrates the racial/ethnic make-up of the student population of the four school districts combined: 79 percent were Hispanic; 17 percent were White, non-Hispanic; 3 percent were Black, non-Hispanic; and 1 percent was classified as other.

**Figure 1. Total Student Population by Race/Ethnicity in FY 2008**



### **Staffing**

SBHCs are staffed by a team of health care providers. The staff may include a physician, nurse practitioner or physician’s assistant, registered nurse, licensed vocational nurse, social worker, psychologist, and a licensed professional counselor. In FY08, three of the four funded sites had mental health providers on staff. The fourth site had linkages to community mental health providers. One site had dental providers including a dentist, dental hygienist, and dental assistant.

### **Overview of Services of All DSHS-Funded School-Based Health Centers**

The following is a summary of information from SBHC quarterly reports submitted to the DSHS School Health Program in FY08. The reports quantify SBHC activities such as the number and type of clinic visits, Medicaid visits, immunizations, referrals, educational outcomes as well as anecdotal information. Some data from SBHCs funded by DSHS during FY06 and FY07 are presented for comparison.

### **Total Visits: FY08**

- Project directors reported 6,304 student visits to SBHCs.
- One site reported 784 dental visits.
- Thirty-eight percent of the 6,304 student visits were Medicaid visits. Of those 2,394 Medicaid visits, a total of \$253,373 was billed to Medicaid for an average cost of \$106 per visit. Of the \$253,373 billed to Medicaid, the SBHCs received \$159,482 in reimbursements, about 63 percent of their claims, for an average reimbursement of \$67 per visit. Factors affecting reimbursement rates are addressed under the billing and reimbursement section on page 12.

The most frequently cited reasons for visits to a SBHC were:

- Minor illnesses including otitis media (ear infection), upper respiratory infections, and allergies; and
- Preventive health services including primary care through well-baby and child check-ups, immunizations and sports physicals.

The most common diagnoses at the SBHCs were:

- Allergic rhinitis
- Upper respiratory infection
- Pharyngitis (sore throat)
- Otitis media

The most common lab tests completed in SBHCs were:

- Urinalysis
- Streptococcus screening test
- Comprehensive metabolic panel
- Random glucose testing

The most common reasons for referral to services outside the SBHC were:

- Upper respiratory infections
- Fractures
- Dental problems

### **Chronic conditions**

SBHCs treat and manage students with chronic conditions. The four sites reported that asthma was the most common chronic condition accounting for 151 visits or 61 percent of all visits for chronic conditions (See Table 2.). Asthma is one of the most common chronic conditions in the U.S. affecting 6.8 million children and is the leading cause of school absences.<sup>v</sup> In 2005, there were 728,000 (11.6%) and 458,000 (7.3%) children in Texas with self-reported lifetime and current asthma, respectively.<sup>vi</sup>

While there is no cure for asthma, it can be controlled. SBHCs play an important role in helping students manage their asthma and in reducing emergency room visits and absentee rates.<sup>vii</sup> SBHC providers may develop an individualized asthma plan, identify asthma triggers, and prescribe appropriate medications. The SBHC provider works with the student's primary care provider to prevent duplication of services.

**Table 2. Visits by chronic condition for DSHS-funded SBHCs, FY08**

<b>Chronic condition</b>	<b>Total visits</b>	<b>Percent of visits</b>
Asthma	151	60.6
Seasonal allergies	37	14.8
Mental health	27	10.8
Diabetes	14	5.6
Other <sup>viii</sup>	20	8.0
<b>Total</b>	<b>249</b>	<b>100.5</b>

## **Immunizations**

The total number of immunizations administered in DSHS-funded SBHCs from FY06 through FY08 was 6,922 (See Table 3.). The largest number of immunizations occurred in FY07, with nearly 3,000 immunizations administered. In FY08, the number of immunizations decreased by 814. Several factors explain the decrease in immunizations in FY08, including the difference in total student population served by the four SBHCs in FY07 and FY08 (41,772 and 13,350, respectively) and the number of students who were up-to-date with their immunizations. All four districts in FY08 reported that over 97 percent of the school population was up-to-date with their immunizations.

Temporal variations occur with regards to immunizations, with the highest number of immunizations typically occurring in the first quarter with the fewest occurring in the third and fourth quarters. The first quarter coincides with the beginning of school when students need their immunizations for admission<sup>ix</sup>. The third and fourth quarters cover the end of the school year and the summer months.

**Table 3. Immunizations administered by SBHCs, FY 2006 – 2008**

<b>Fiscal Year</b>	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>	<b>Total</b>
2006 (4 SBHCs)	745	650	663	0	2,058
2007 (4 SBHCs)	1,027	899	771	142	2,839
2008 (4 SBHCs)	694	529	381	421	2,025
<b>Total</b>	<b>2,466</b>	<b>2,078</b>	<b>1,815</b>	<b>563</b>	<b>6,922</b>

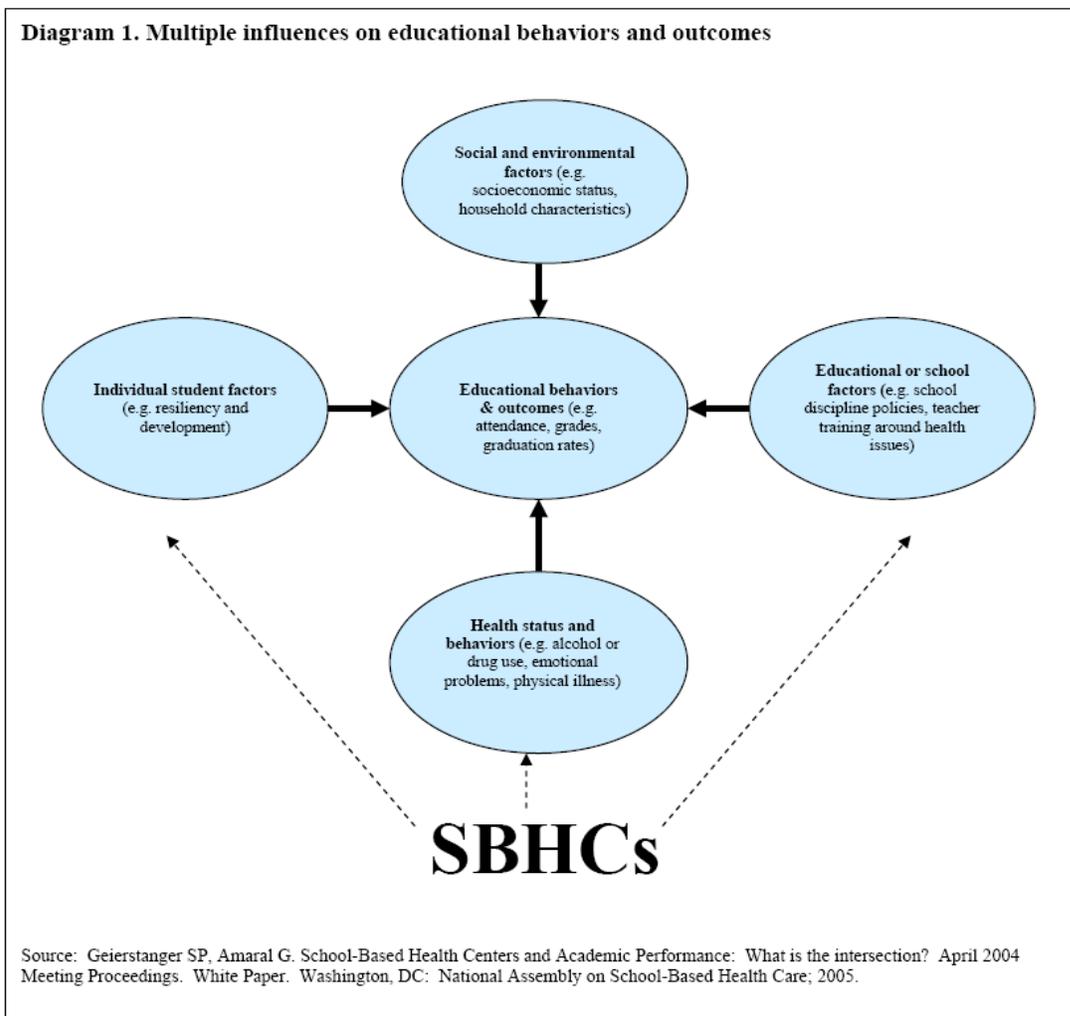
## **Referrals**

In addition to basic services, referrals were made to community providers for specialty services and treatment for fractures, dental care, and upper respiratory and behavioral health problems. The four SBHCs referred 243 students to community providers. Of the 243 students, 103 students were seen by outside providers for a referral completion rate of 45 percent. A referral completion rate is the percent of students that followed up with a community provider. The referral completion rate for the four sites ranged from a high of 97 percent to a low of 19 percent. The SBHC with a completion rate of 19 percent served a school district in the El Paso area where providers are limited and travel distances to providers are vast.

## Measuring Educational Outcomes

One of the goals of the annual SBHC efficacy report is to examine the extent to which SBHCs have had an effect on attendance rates, academic achievement, and graduation and dropout rates. As national research indicates, there is not a direct relationship between SBHCs and improved academic performance. To assess the true impact of SBHCs on academic performance, rigorous research and evaluation methods will need to be developed. Factors that hamper such research include turnover in school population, the inability to randomize groups into clinic users and non-users, difficulties in selecting comparison groups, controlling for external factors such as increased resources to school districts to improve test scores, and the high cost of research.<sup>x</sup>

Assessing the impact of SBHCs on academic performance also requires a clear understanding of the relationships between SBHCs, academic performance, and other educational, social and environmental influences. A framework for understanding how multiple factors influence academic performance and educational behaviors is important. These factors include health status and behaviors, individual student factors, educational or school factors, and social and environmental factors. Diagram 1 illustrates the four factors of educational behaviors and outcomes and the potential influence of SBHCs.



As indicated in Diagram 1, SBHCs can influence factors that impact the educational and behavioral outcomes of students. Table 4 lists these factors, provides examples of each factor, and describes the potential impact of a SBHC on each factor.

**Table 4. Factors Influenced by SBHCs**

<b>Factors</b>	<b>Examples</b>	<b>Impact by SBHCs</b>
Health Status and Behaviors	Alcohol or drug use, emotional problems, and physical illness	Interventions such as counseling for alcohol or drug use
Individual Student Factors	Resiliency and developmental assets	Supporting and treating students with chronic and behavioral illness
Educational or School Factors	School discipline policies and teacher training around health issues	Provide health education in the classroom on health topics
Social and Environmental Factors	Socioeconomic status or household characteristics	Minimal impact unless the SBHC staff addresses these factors with students and their families.

### **Attendance Rates**

There was no significant difference in attendance rates between 2007 and 2008 in the four school districts. While there is not a direct link between SBHCs and district level attendance rates, a review of the research compiled by the National Assembly on School-Based Health Care (NASBHC) indicates that a substantial positive change in attendance rates does occur among students with chronic conditions such as asthma when a SBHC is present.<sup>xi</sup>

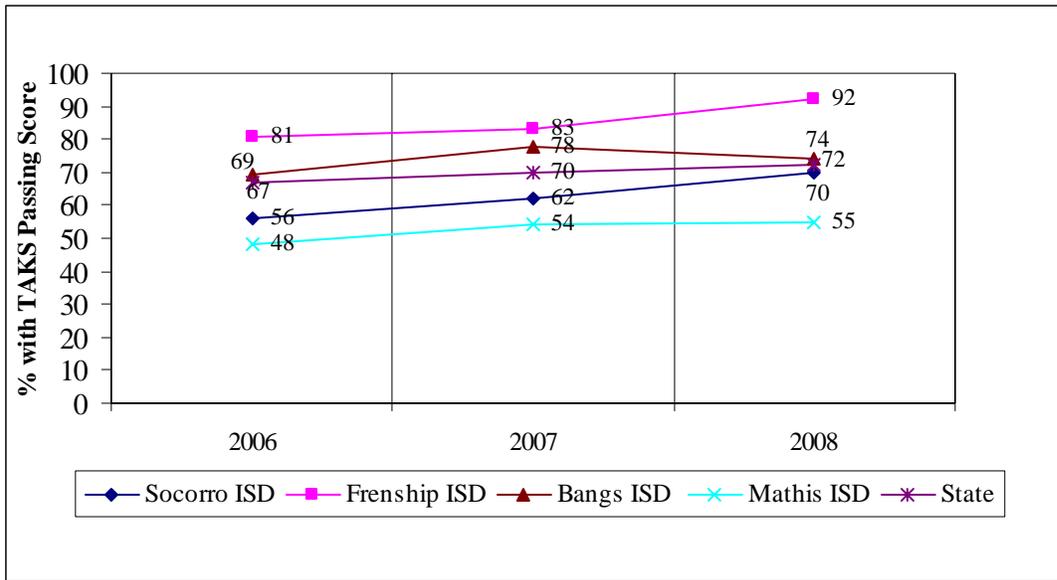
DSHS-funded SBHCs track and report the attendance of students with certain chronic conditions. Revisions to the reporting and monitoring systems have helped improve the attendance tracking and reporting. Students with asthma who are in compliance with their treatment plans are likely to have better attendance rates than students with asthma who are not in compliance. Tracking their attendance is one way to measure the impact of a SBHC. One site that tracked attendance rates for students with asthma found a 24 percent decrease in absences among those asthmatic students reporting upper respiratory symptoms. One student reduced his absences by 46 percent in one year. The decrease cannot solely be attributed to the presence of the SBHC; however, the site did report an increase in the identification of asthmatic students and a 24 percent increase in the number of inhalers kept at school. Future reports will continue to include analysis of attendance rates for students with chronic conditions such as asthma and diabetes.

### **Texas Assessment of Knowledge and Skills (TAKS)**

Texas began administering the TAKS test to students in grades 3 through 11 during the 2002–2003 school year. TAKS data were obtained from TEA for FY06 through FY08 to measure “pass rates” among students in districts with SBHCs funded by DSHS. While three of the four school districts improved their TAKS scores between 2007 and 2008 (Figure 2)<sup>xii</sup>, this cannot be directly attributed to the SBHC. The following factors must be considered in examining the impact of a SBHC on TAKS scores.

- **Reporting.** TEA reports TAKS scores at the campus and district levels. While all four 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 TAKS scores.
- **External variables.** External variables may impact scores. A school with low TAKS scores may provide increased instruction time to improve TAKS scores. The influence of this variable alone could potentially outweigh any increase in TAKS scores that may have resulted from a SBHC.

**Figure 2. TAKS Passing Scores for Districts that Received Funding from DSHS, FY 2006 - 2008**



### **Dropout and Graduation Rates**

Two school districts showed an increase in students graduating and a reduction in those dropping out. Due to reporting and external variables as previously mentioned, the improvement in dropout and graduation rates cannot be attributed solely to the SBHCs.

### **Difficulties Faced By SBHCs**

Districts often face challenges when trying to establish, implement, and sustain a SBHC. These issues include funding application issues, implementation issues, sustainability issues, and technical assistance issues.

### **Funding Application Issues**

Historically, there has been a decline in the number of applications for DSHS funding. Despite a slight increase in the number of applications in 2006, the competitive application process presents a barrier for some school districts.

Informal surveys of past, current, and potential contractors at the 2006 TASBHC conference and again at the 2008 conference found that the application process was too difficult for school districts. Several concerns were identified:

- School nurses and other school personnel have limited resources to complete a formal needs assessment or to develop a planning group.
- School staff often do not have the time or training to write grants.
- Both experienced and inexperienced grant-writers described the “request for proposal” as intimidating and cited Historically Underutilized Business (HUB) requirements as a major obstacle. DSHS is currently reviewing the HUB requirement to determine whether or not schools will be able to utilize their existing policies and procedures for obtaining bids from underutilized businesses during the next funding period.

One of the goals of DSHS funding is to serve the most underserved and at risk students in rural schools and in schools with low property wealth per student. One strategy to achieve this goal is to target schools that have the highest number of students on free and reduced lunch, the lowest TAKS scores, and the highest dropout rates. An analysis of all the school districts in Texas based on these factors and health indicators will generate a list of the highest priority school districts. DSHS will then be able to promote the SBHC program and funding opportunity to those districts.

### **Implementation Issues**

#### **Billing and reimbursements**

Billing issues, especially related to Medicaid, continue to create challenges for SBHC management. A report conducted by NASBHC in 2000<sup>xiii</sup> suggested that SBHCs throughout the nation are challenged by Medicaid billing. Problems surrounding Medicaid reimbursement relate to the complexity of the system and the variability among states’ policies in terms of what types of services can be fully reimbursed. According to the report, the majority of states indicated that of all services billed, only a small proportion was reimbursed, and only two states reported reimbursement rates greater than 50 percent.

This is consistent with feedback from the DSHS-funded SBHCs in FY08. The four districts billed third-party payors \$511,131. Of this amount, the SBHCs received \$237,140 for a reimbursement rate of 46 percent. Districts billed more to Medicaid than any other third-party payor for a total of \$253,373. Of this amount, the centers received \$159,482 or 63 percent in reimbursements for an average reimbursement of \$67 per visit.

There are many variables that affect the amount that SBHCs are able to bill third-party payors and the amount they are reimbursed for services. The site that billed the largest amount is part of a federally qualified health center (FQHC). FQHCs receive a higher reimbursement rate from Medicaid than other Medicaid providers. Another site that received 90 percent of its claims is affiliated with an academic medical institution with a well-established billing system.

SBHCs that are not affiliated with either an FQHC or an academic medical institution often face more challenges in billing third-party payors. These include delays in billing caused by a change in provider, learning to navigate the Medicaid system, and limited personnel to handle the billing.

These challenges have the potential to impact the provision of services and future sustainability. However, as SBHCs become more familiar with establishing billing practices, it is likely that reimbursement rates will increase.

### **Sustainability Issues**

Sustainability continues to be an issue for SBHCs. Similar to other states across the country, Texas provides seed money for the establishment of SBHCs.<sup>xiv</sup> Additional local and private dollars and resources are needed to sustain a program. School districts also provide direct dollars and in-kind support to SBHCs. A majority of the school districts provide in-kind support in the form of staff time, space, utilities, and equipment.

The funded sites are required to report on their sustainability efforts at the end of each contract year. All four sites reported the need to increase revenues through third-party payors. In order to help increase revenues, SBHCs activities have included outreach to parents to enroll their children in Medicaid or CHIP programs. Sites are also seeking additional funds from community organizations, private foundations, and other sources.

A strong school partnership is also critical in sustaining a SBHC. Schools can benefit from having a solid SBHC program. These benefits include improvements in attendance for students with chronic illnesses and reduced barriers to learning. Developing a strong school partnership requires that the SBHC continuously participate in school activities. Activities that help foster a strong school partnership include attending SHAC meetings, serving as a resource to school personnel, participating in Individual Education Plan meetings, and providing health education in the classroom.

### **Technical Assistance Issues**

In FY08, the DSHS School Health Program continued to provide technical assistance to funded sites. Technical assistance activities included two support meetings during the fiscal year, regular conference calls, and individual monitoring of program activities. Technical assistance was also provided statewide through the annual TASBHC conference, resources provided through the DSHS School Health Program website, and participation in a national initiative to provide trainings to SBHCs in Texas.

### **Conclusion**

DSHS-funded SBHCs continue to provide preventive and primary care services to medically underserved students in Texas with positive results.

- During FY08, over 13,000 students across 20 campuses had access to a DSHS-funded SBHC.
- Over 1,200 non-students including siblings and other family/community members were enrolled for services in the DSHS-funded SBHCs.
- Immunizations, well-child visits, and physical examinations were the most common preventive health care services provided by SBHCs.

- SBHC directors reported billing Medicaid \$253,373. Of this amount, the centers received \$159,482 or 63 percent in reimbursements for an average reimbursement cost of \$67 per visit.

One of the goals of this report is to examine the impact of SBHCs on academic performance. As shown by the analysis of funded sites and national research, SBHCs are more likely to impact educational behaviors such as attendance rates for asthmatic students rather than educational outcomes such as TAKS scores.<sup>xv</sup> A true determination of the impact of SBHCs on academic achievement can only be measured by tracking student outcomes, exam scores, attendance rates, SBHC service utilization by individual students, along with numerous other social and behavioral variables in a controlled research project. The cost of such research could be prohibitive.

Districts face challenges when trying to establish, implement, and sustain a SBHC. Stakeholders indicate that the DSHS application process is difficult for school districts that often do not have expertise in grant writing. While a few of the SBHCs show progress in billing Medicaid, the Medicaid billing process often requires more staff time than can be recouped through reimbursement.

During FY08, DSHS staff continued to provide technical assistance to funded programs. These activities included two annual meetings, regular conference calls, improved reporting and monitoring system, and assistance in identifying resources to help sustain programs. In addition to these activities, the DSHS School Health Program continued to develop a strong partnership with TASBHC. This partnership benefits all SBHCs in Texas that serve some of the neediest children in Texas.

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<sup>i</sup>U.S. Census Bureau, Current Population Survey: 2008 Annual Social and Economic Supplement (2007 data) <http://pubdb3.census.gov/macro/032008/health/toc.htm>.

<sup>ii</sup> Texas Association of School-Based Health Centers, October 2008.

<sup>iii</sup> At the end of FY 2008, Frenship ISD opened its school-based health center to all nine schools in the district.

<sup>iv</sup> Estimated number. New project director is reconciling medical records to report an accurate enrollment number.

<sup>v</sup> American Lung Association. Childhood Asthma Overview. Website: <http://www.lungusa.org>. Accessed December 9, 2008.

<sup>vi</sup> Texas Asthma Controlled and Prevention Program. The Burden of Asthma in Texas 2000-2005 Report. <http://www.dshs.state.tx.us/chronic/pdf/asthbur.pdf> Accessed December 9, 2009.

<sup>vii</sup> Webber MP, Carpiello KE, Oruwariye T, et al. Burden of Asthma in Inner-City Elementary School Children: do School-Based Health Centers Make a Difference? Arch Pediatr Adolesc Med.2003;157:125-129.

<sup>viii</sup> Other includes: congenital heart defects and seizures.

<sup>ix</sup> Immunizations are required to enter public or private primary or secondary schools or institutions of higher education per Texas Administrative Code, Title 25, Part I, §§97.61-97.72.

<sup>x</sup> 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.

<sup>xi</sup> Ibid.

<sup>xii</sup> Texas Education Agency. TAKS Standard Accountability Indicator. For 2006 and 2007, the standard accountability indicator excluded grade 8 science. For 2008, the standard accountability indicator included selected TAKS (accommodated).

<sup>xiii</sup> National Assembly on School-Based Health Care (2000). Medicaid Reimbursement in School-Based Health Centers: State Association and Provider Perspectives. NASBHC: Washington, DC.

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<sup>xiv</sup> State Policies that Support School-Based Health Centers, School Year 2004-2005. National Assembly on School-Based Health Care, Washington, DC. Website: [www.nasbhc.org](http://www.nasbhc.org). Accessed March 5, 2008.

<sup>xv</sup> Geierstanger SP. Op cit.