



**Fiscal Year 2005
Annual Report on School-Based Health Centers**

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Fiscal Year 2005 Annual Report on School-Based Health Centers Executive Summary

Texas Education Code, Chapter 38, § 38.064, requires the Department of State Health Services Commissioner to issue an annual report to the Legislature about the efficacy of school-based health centers (SBHCs) funded by the Department of State Health Services (DSHS). This report highlights service utilization trends and academic achievement for SBHCs that received funding in FY 2005.

Key Findings for FY 2005

- Six SBHCs received funding from DSHS with two beginning operations in FY 2005. Only limited comparisons of utilization trends and academic achievement could be made for newly funded schools.
- More than 15,000 students, siblings, other family members and community members across 37 campuses had access to DSHS funded SBHCs; and more than 7,000 people utilized their services.
- More than 5,000 immunizations were administered in the six DSHS funded SBHCs during FY 2005.
- Directors of DSHS funded SBHCs reported that 20% of students enrolled in SBHC services were eligible for Medicaid and 30% of all visits were billed to Medicaid. Medicaid billing issues continue to create challenges for SBHC management.
- A higher proportion of students in a charter school for at-risk students with a SBHC passed the standardized Texas Assessment of Knowledge and Skills exam since health center operation began.
- According to TEA data, two school districts reported increased graduation rates after three years of operation with DSHS funding.

Future Activities

- DSHS program staff will continue to identify and eliminate barriers to school districts in pursuing DSHS start-up grant funding.
- Future evaluation efforts will include strategies to collect data at the school campus level and student level from DSHS-funded health centers. True correlations that indicate efficacy cannot be established until a more extensive methodological strategy is designed and implemented.

Fiscal Year 2005 Annual Report on School-Based Health Centers

Texas Education Code, Chapter 38, § 38.064, requires the Department of State Health Services Commissioner 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 FY 2005.

Background

According to 2004 U.S. Census data, 21.4 percent of children in Texas under 18 have no health insurance. As a result, school nurses see more students with physical and mental health conditions that impact students' school attendance and their ability to pay attention in class, control their anger, and restrain from self-destructive impulses. Academic performance may be lower than expected because they are not prepared to learn when they arrive at school. 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 center in the United States opened in Dallas in 1970, SBHCs have been a means of providing basic health care to medically underserved children and adolescents. Today, there are over 100 SBHCs serving the children of Texas. The centers use a comprehensive, affordable, multi-disciplinary approach to address the health care needs of school-aged children and youth. Often an array of services are provided, including but not limited to:

- immunizations,
- well-child exams,
- sports physicals,
- acute care for minor illness and injury,
- dental screenings and treatment or referral,
- mental health services, and
- basic health education for children and their families.

In 1993, DSHS, formerly the Texas Department of Health, began providing competitive grant funding to assist Texas communities in establishing SBHCs. Since that time, 38 SBHC's have been funded. Of those, 26 are still in operation (see Map on page 4). The centers are usually located on school campuses, although easily accessible sites located off campus have also been funded, as have 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 feeder schools. Each center is tailored to the needs of the community. One example of services provided by a SBHC that are unique to the community can be found in the health center at Hart School District in the Panhandle, one of the first SBHCs funded by DSHS. The Hart ISD SBHC treats high school students for sinus problems to keep attendance high in a grain-producing community where many people have allergies, meeting the particular needs of the community.

School-based health centers typically operate independently of, but in coordination with, a traditional school nurse. Before medical services are rendered in the SBHC, students must have a signed, parental consent form on file. In many instances, family members, such as siblings or children of parenting teens, are also eligible to use SBHC services.

As authorized by the 76th Legislature, DSHS has provided start-up funding to SBHCs in accordance with the Texas Education Code (TEC), Chapter 38, § 38.051 through 38.064. The program currently allows a maximum three years of funding. Funding ranges from \$125,000 in year one to \$62,500 in year three.

During fiscal year (FY) 2005, DSHS funded the following six SBHC projects:

- Texas City Independent School District (ISD) – 3rd year of funding
- Clint ISD – 3rd year of funding
- Somerset ISD – 2nd year of funding
- Cedar Ridge Charter School – 2nd year of funding
- Tornillo ISD – 1st year of funding
- La Marque ISD – 1st year of funding

See the Texas map that follows for the locations and the years of funding for each of the 38 DSHS-funded SBHCs.

GIS MAP

Map of Texas showing location of each of the 38 SBHCs funded by DSHS since 1993 including an indication of which SBHCs were funded in 2005, when each of the others was funded and how many are closed.

Evaluation Methods

Multiple sources of quantitative and qualitative data were analyzed for this report. The report highlights service utilization trend data identified in SBHC quarterly reports, Texas Education Agency (TEA) Public Education Information Management System (PEIMS) data, as well as information from key informant and stakeholder interviews.

This report places an emphasis on the four SBHCs receiving the second or third year of funding during FY 2005 with only limited comparisons made for the two newly enrolled districts. Academic achievement, attendance rates, graduation and dropout rates will be examined for those schools in their second or third year of funding during FY 2005.

Evaluating whether school-based health centers have an impact on educational outcomes is a key area of interest for DSHS. However, a barrier must first be overcome before determining the effects. For the purposes of this report, SBHC district measures were compared to the state and regional measures available at the time. Correlation between SBHC utilization and student outcomes cannot be established with current evaluation strategies. A true determination of the impact of SBHCs on academic achievement should be measured by tracking student outcomes, measured by exam scores, attendance rates, and SBHC service utilization for individual students. Ideally, these measurements would be taken before and after a given academic year. However, due to limited program resources, this was not possible. Therefore, the data represented in this report can only give a snapshot of district outcomes since the implementation of the SBHC and cannot be tied empirically to program impact.

Demographics

Access to Care

During FY 2005, DSHS-funded SBHCs were well utilized by students in the school communities they serve. A demographic overview utilizing data sources mentioned in the previous section follows:

- Six SBHCs received funding from DSHS during FY 2005.
- More than 15,000 students in 37 campuses had access to services.
- Among districts that received funding, two were located in rural areas:
 - Cedar Ridge Charter School (CRCS) is located in Lometa, in north central Texas.
 - Somerset Independent School District is in Somerset, in south central Texas.
- Among districts that received funding, four were located near metropolitan areas:
 - Clint ISD and Tornillo ISD are located in or near El Paso, TX
 - La Marque ISD and Texas City ISD are near Galveston and Houston, TX.

Enrollment

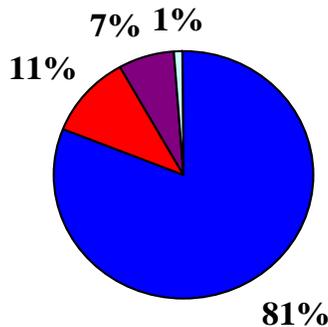
In 2005, there were 6,731 students enrolled for services in the 6 SBHCs. In addition, more than 1,117 non-students, including siblings and other family/community members, were also enrolled for SBHC services. Figure 1 illustrates distribution of enrollment among the 6 SBHCs and overall.

Table 1. Enrollment by District/School

DISTRICT/SCHOOL SERVED	Total Student Population	# Students Enrolled in SBHC	% of Students Enrolled in SBHC
Somerset ISD	3,485	334	10%
La Marque ISD	3,872	780	20%
Clint ISD	9,418	2,520	27%
Texas City ISD	5,965	2,416	41%
Tornillo ISD	1,225	560	46%
Cedar Ridge Charter School	135	121	90%
Totals	24,100	6,731	28%

According to program data submitted to DSHS, 81.0% of students who accessed DSHS-funded SBHCs were Hispanic, 11.0% were White, non-Hispanic, 7.0% were Black, non-Hispanic, and 1.00% were classified as Other. Figure 1 indicates the ethnicity of students who were enrolled in DSHS funded SBHCs in FY 2005.

Figure 1. 2005 SBHCs by Race/Ethnicity



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

The following is a summary of key findings from SBHC quarterly reports submitted to the DSHS School Health Program in FY 2005. 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.

Total Visits: FY 2005

- SBHC project directors reported more than 7,500 student visits.
- A primary care provider, either a nurse practitioner or a physician, saw 75% of the students, families and others.
- A school nurse or other school staff provided 25% of the care.
- Twenty percent of the students enrolled for SBHC services were eligible for Medicaid and 30% of all visits were billed to Medicaid.

The most common diagnosis at the SBHC:

- Upper respiratory infection
- Viral illness
- Otitis media (ear infection)
- Urinary tract infections

The most frequent reasons for visits to a SBHC:

- Preventive health services including well baby and well child check-ups, and sports physicals
- Minor illnesses including otitis media (ear infection), sinusitis, urinary tract infections, and headaches

Most common reason for referral for services outside the SBHC:

- Chest pain
- Asthma

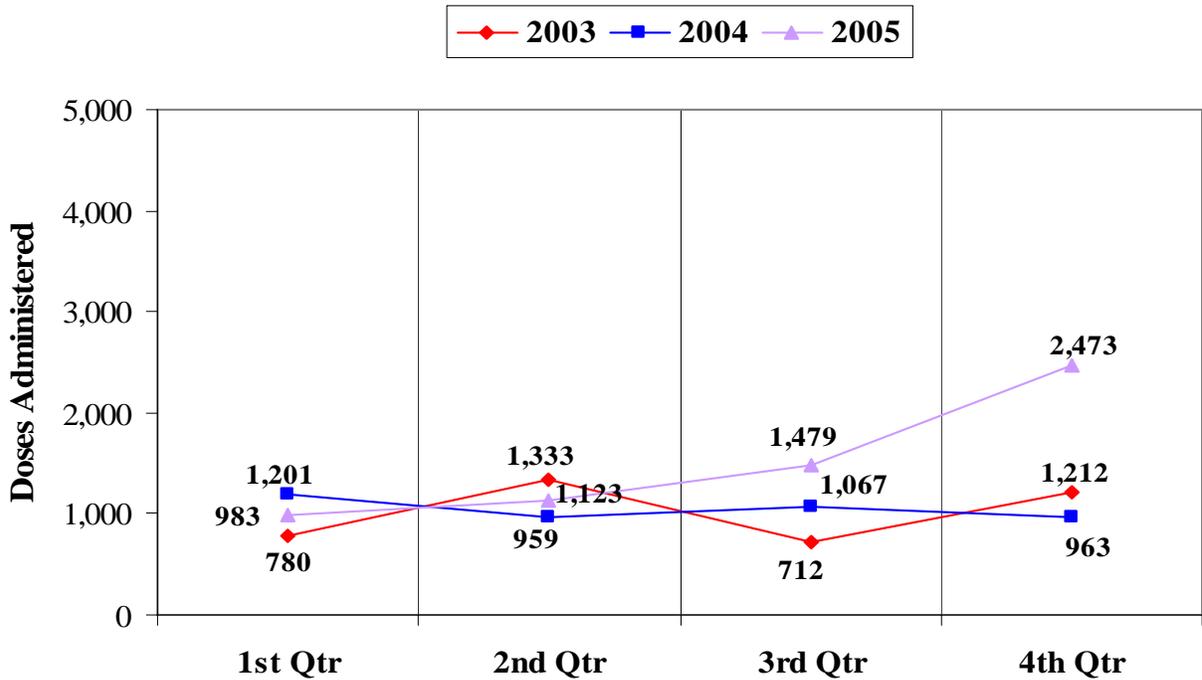
Most common lab work completed in SBHCs:

- Random glucose testing
- Group B streptococcus screening tests
- Serum human chorionic gonadotropin

Immunizations

Overall, the total number of immunizations administered increased substantially from FY 2003 to FY 2005 (see Figure 2). During FY 2003 the highest number of immunizations occurred in the second quarter (1250), with immunizations tapering off by the fourth quarter. In FY 2005, DSHS-funded SBHCs administered more than twice as many immunizations in the fourth quarter (2473) as in FY 2003. In FY 2003, there were nine SBHCs funded by DSHS as compared to FY 2005, when there were six centers funded. Increasing numbers of immunizations during a time when there were decreasing numbers of students served indicates better utilization over time of services by the communities involved.

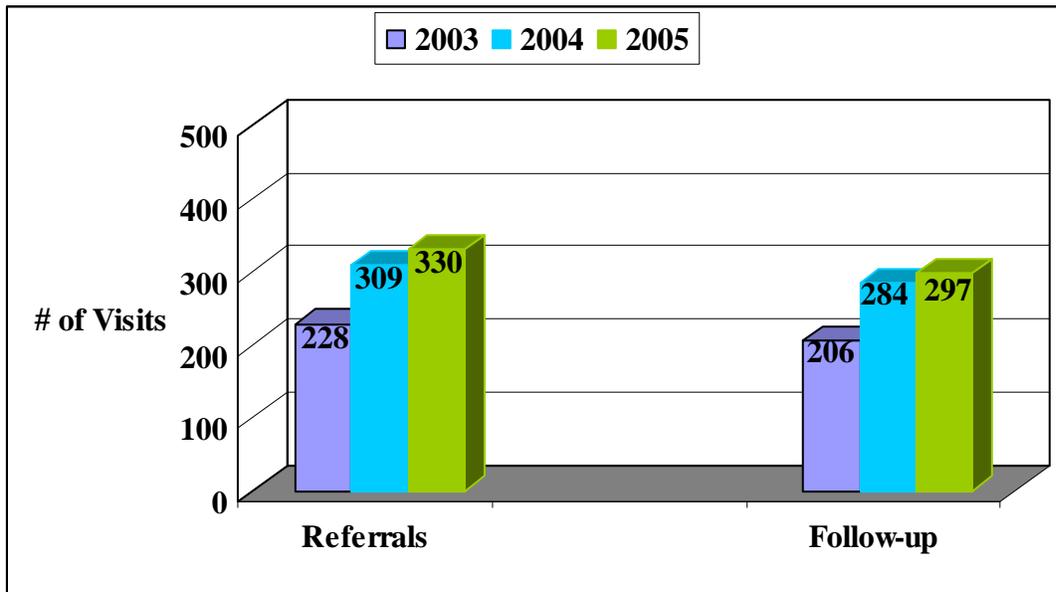
Figure 2. Immunizations Per Quarter, FY 2003 - 2005



Referrals and Completed Follow-Up Visits

Immunizations, well-child visits, and physicals examinations are the most routine preventive care services provided by SBHCs. In addition to routine care, referrals are made for specialty services and treatment for ailments related to vision, neurology, cardiology, and psychological problems. Figure 3 indicates the increase in the number of referrals from FY 2003 to FY 2005 among the two school districts funded for 3 years (Texas City ISD and Clint ISD). Three hundred and thirty referrals were made in FY 2005 by clinic staff compared to 228 during FY 2003. The number of referrals that resulted in a known follow-up visit with a specialist also increased from 206 referrals followed-up in FY 2003 to 297 referrals followed-up in FY 2005. It appears that the SBHCs are better utilized over time as they become well known to the communities they serve.

Figure 3. Three-Year Funded School-Based Health Centers: Referrals and Follow-up Visits in SBHCs Receiving DSHS Funds



Measuring Educational Outcomes

One of the goals of the annual SBHC efficacy report is to examine the extent to which SBHCs have had an impact on attendance rates, academic achievement, and graduation and dropout rates. The ability to measure this goal is hampered for three reasons. First, two of the six participating schools that receive DSHS funding are in their first of three years of implementation. The amount of start-up time necessary to implement a SBHC means that during the first year of funding, services typically will not be delivered for a full nine months. Second, the most recent data (FY 2005) regarding attendance, graduation and dropout rate is not available from TEA for evaluation. In some cases, FY 2005 data from the district was used, but it is important to note that in those cases, the data is 'raw' and not published by TEA. Third, the small percentage of students receiving services in most of the districts receiving DSHS funds for SBHC services may not impact the overall district rates.

Attendance Rates

There was no significant change indicated in attendance rates from all six of the districts/schools during FY 2005. This is consistent with state and regional data that also indicated no significant change. A review of research completed by the National Assembly on School-Based Health Centers (NASBHC)¹ indicates that substantial positive change in attendance rates does occur among students with chronic illnesses when a SBHC is present. DSHS program staff are planning to collect data in FY 2007 regarding individual students with chronic illnesses in schools where DSHS funded SBHCs are providing services.

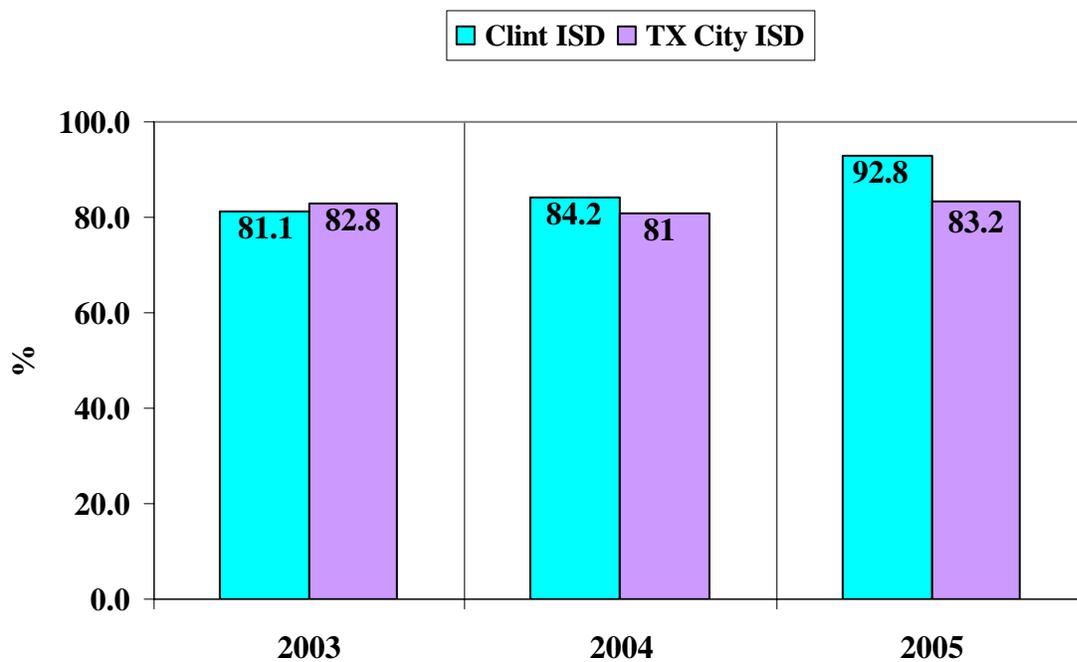
Dropout Rates

There was no significant change indicated in dropout rates from five of the six districts/schools funded during the years of DSHS funding with the possible exception of CRCS, where the rate decreased from 14.3% to 13.3% from FY 2002 to FY 2004.

Graduation Rates

Graduation rates increased at both campuses with DSHS-funded SBHCs in operation for three years. Figure 4 indicates graduation rates for Clint ISD and Texas City ISD for FY 2002 through FY 2005. Clint ISD reported a graduation rate of 82.8%ⁱⁱ in 2002, the year before the SBHC opened. The graduation rate for 2005, the third year of SBHC funding, increased to 94.8%ⁱⁱⁱ. Texas City ISD also reported an increase in graduation rates from 77%^{iv} to 83.2%^v.

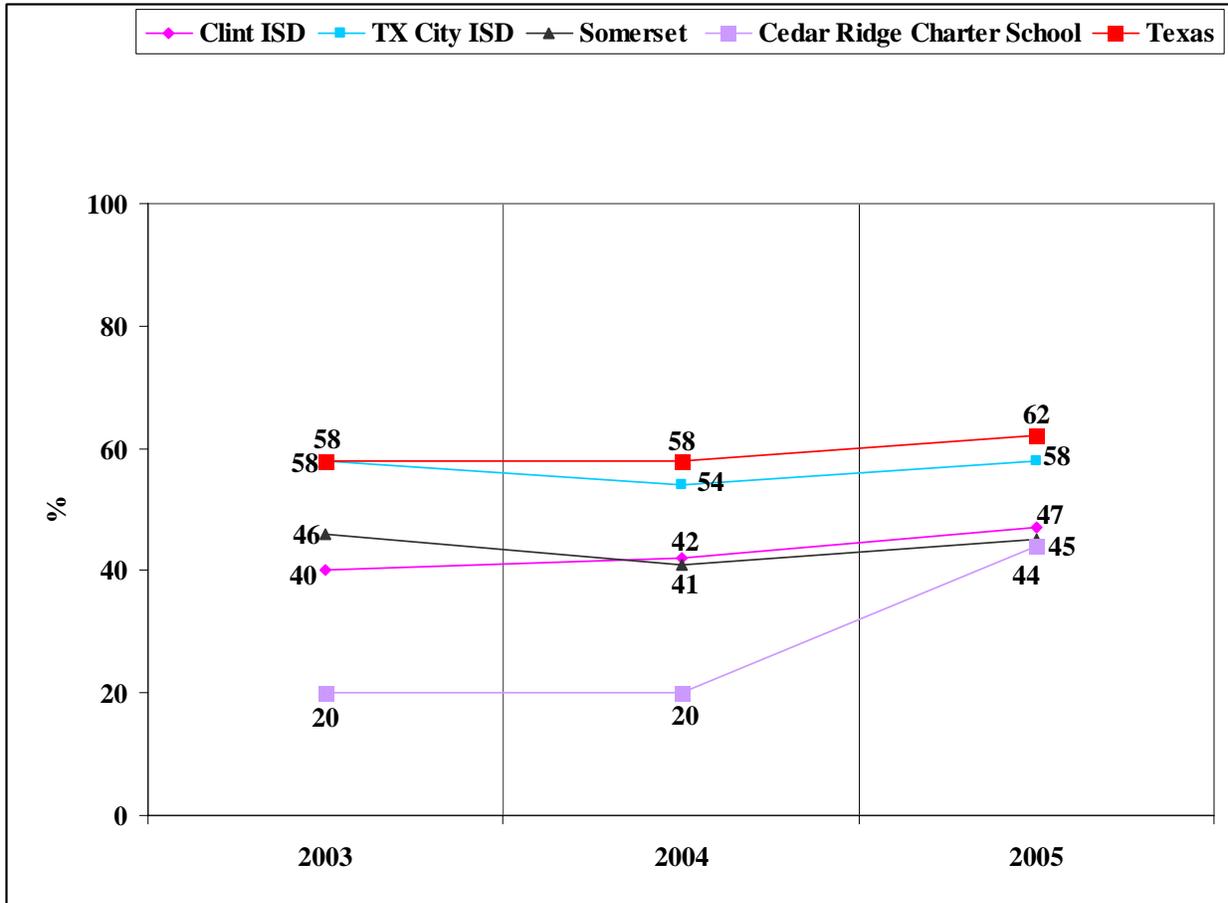
Figure 4. Graduation Rates Among SBHCs During Three Years of Funding



Texas Assessment of Knowledge and Skills (TAKS)

Texas began to administer the TAKS test to students in grades 3 – 11 during the 2002–2003 school year. TAKS data were available from TEA for FY 2003 through FY 2005 to assess cognitive skills among students in districts with SBHCs funded by DSHS for at least two years. Of the four schools in the second or third year of funding, three of the four districts reported an increase in district TAKS scores. While there were some positive changes reported by each of the four school districts, only Cedar Ridge Charter School reported changes that were greater than changes in the state rates. (see Figure 5).

Figure 5. TAKS Passing Scores For Districts After at Least Two Years of SBHC Funding From DSHS



Cedar Ridge Charter School (CRCS)

CRCS may offer the best model for evaluating SBHC outcomes because most of the students are identified as at-risk of dropping out. According to TEA, a student at-risk of dropping out of school includes each student who is under 21 years of age and who:

- Did not perform satisfactorily on a readiness test or assessment instrument administered during the current school year;
- Is in grade 7, 8, 9, 10, 11, or 12 and did not maintain an average equivalent to 70 on a scale of 100 in two or more subjects;
- Was not advanced from one grade level to the next for one or more school years;
- Did not perform satisfactorily on an assessment instrument administered to the student;

- Is pregnant or is a parent;
- Has been placed in an alternative education program;
- Has been expelled during the preceding or current school year;
- Is currently on parole, probation, deferred prosecution, or other conditional release;
- Was previously reported through the Public Education Information Management System (PEIMS) to have dropped out of school;
- Is a student of limited English proficiency;
- Is in the custody or care of the Department of Protective and Regulatory Services or has, during the current school year, been referred to the department by a school official, officer of the juvenile court, or law enforcement official;
- Is homeless;
- Resided in the preceding school year or resides in the current school year in a residential placement facility.

CRCS received its charter in 1998. Half of the students attending CRCS are in “out of home” placements (residential placement, foster care, or emergency shelter) and present with extensive medical, emotional and social needs. Most of the students who live at home are also at-risk of dropping out of school because of poor performance in the past. With one hundred thirty-five students enrolled in FY 2005, the number of students in this school is relatively small. Ninety per cent of the students enrolled in CRCS were enrolled for services in the SBHC, increasing the likelihood that data reported by the school was influenced by exposure to the center. This is a significantly greater proportion of students potentially affected by the SBHC than any other district funded in FY 2005.

CRCS is in Lometa, a rural community, and the nearest health services are 20 miles away. Therefore, access to primary health care was a barrier for many families. In FY 2002, before the Eagle Wellness Center (EWC) opened at CRCS, the graduation rate was 28.6%. This number increased to 46.7% in FY 2004, the latest year for which data is available. The dropout rate decreased from 14.3% to 13.3% during the same period.

As indicated above, TAKS passing scores increased from 20% in FY 2003 (the first year this test was administered) to 44% in FY 2005. While a multitude of variables may exist to explain these differences, the possibility exists that these changes can be accounted for in some measure by the presence of the SBHC.

CRCS staff reported that strong relationships developed between the EWC staff and students. The staff also was able to make use of the SBHC and noted that among all school staff, absenteeism went down because of the EWC, resulting in more consistent relationships between students and staff and greater productivity. EWC staff provided educational programs related to health, hygiene and other practical information that was new to many students. As one staff member stated, “Kids with emotional difficulties who are not college bound sometimes need a little extra encouragement and education about day to day living.”

Difficulties Faced By SBHCs

Districts often face challenges when trying to establish, implement and sustain a SBHC program. The following is a brief summary of some of those issues.

Application Issues

There has been a consistent decline in the number of applicants seeking DSHS funding for SBHCs. This decline was first reported in 2002 and continued through 2005. In order to explore this trend, an informal survey of past, current and potential contractors was conducted at the 2006 Texas Association of School-Based Health Centers Conference in El Paso in February of 2006 regarding perceived barriers to applying for DSHS school-based health center funds.

Eight of the 10 stakeholders surveyed stated that the process was too difficult, specifically for school districts. Several concerns were identified and are listed below:

- School nurses and other school personnel have limited resources available to complete needs assessments or to develop advisory groups.
- They often do not have the time or training to write grants to fund the SBHC.
- Both experienced and inexperienced grant-writers described the RFP as ‘intimidating’ citing Historically Underutilized Business (HUB) requirements as a major obstacle.
- More training and technical assistance is needed to support applicants after funding is received.

Implementation Issues

Billing issues, especially related to Medicaid, continues to create challenges for SBHC management. The National Assembly on School-Based Health Centers (NASBHC) suggested in 2000^{vi} that SBHCs located throughout the nation are challenged by the Medicaid billing-reimbursement dilemma. Problems surrounding Medicaid reimbursements are primarily a function of state policies and vary as to 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%.

In FY 2005, only four of the six SBHCs funded by DSHS billed Medicaid for services, despite the fact that 20% of their clients were eligible. Of those that did bill, the reimbursement rate was reported to be less than 40% of their claims. The inability to fully recover the amount billed for Medicaid has the potential to impact the provision of services and future sustainability.

Sustainability

Sustainability continues to be an issue in Texas. The National Assembly on School-Based Health Care researched SBHCs across the country in 2002^{vii}. According to their analysis, there were 110 identified SBHC’s opened in Texas between the years 1970 and 2000 that were funded by various sources. Thirty-four of the 110 were closed during that time, primarily due to loss of funding. According to the NASBHC, this rate of closure (31%) is higher than the national average (20%). The rate of closure among SBHCs funded by DSHS since 1993 is 37%.

Conclusion

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

- During FY 2005, students across 37 campuses had access to a DSHS-funded SBHC.
- Nearly 8000 students, siblings, other family and community members utilized SBHC services.
- A primary care provider provided 75% of all services offered.
- Increases in immunizations, referrals and follow-up visits were reported in centers that received funding for two or more years between FY2003 and 2005.

The relationship between SBHCs and academic achievement also showed promising results. TAKS scores and graduation rates increased in three of the four districts with SBHCs and were comparable to changes reported at state and regional levels in each case with one exception, the CRCS.

Graduation rates and TAKS scores for Cedar Ridge Charter School (CRCS) increased while dropout rates decreased. Alternative schools offer an excellent opportunity to evaluate SBHC program effectiveness in terms of academic achievement. Reported change was greater than change within the state and regional data. Even so, correlation between SBHC utilization and student educational outcomes cannot be established with current evaluation strategies.

A review of existing research reveals the complexity of documenting a relationship between the provision of health care within schools and an impact upon academic performance. SBHCs strive to improve health behaviors and outcomes, which, in turn, can influence educational behaviors and outcomes. Given that SBHCs do not typically provide educational enrichment activities, the relationship with academic performance should be thought of as indirect. DSHS evaluation efforts in the future will include data collection strategies that utilize macro level data, survey information and data collected from students who utilize DSHS-funded health centers and that focus on health behaviors and outcomes in addition to academic outcomes.

Districts face challenges when trying to establish, implement and sustain a SBHC program. Each year since 2002, DSHS has received fewer applications for SBHC funding. Stakeholders indicate that the DSHS application process is intimidating to school districts that often do not have expertise in grant writing. Medicaid billing often requires more staff time than can be recouped from the billing process. Sustainability continues to be an issue each SBHC in Texas faces. SBHCs in Texas close their doors at significantly higher rate than in other states. The DSHS SBHC Program will address these issues in the coming year by providing technical assistance and training opportunities on-line. DSHS will provide information on the School Health Web site to assist potential applicants in the RFP process. The web site will also provide resources to contractors to help them with billing and other administrative issues and to assist in locating and planning for needed funding to continue services. For the right communities in Texas, SBHCs make significant contributions to the health of the children in Texas with some of the greatest needs.

ⁱ 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.

ⁱⁱ TEA Academic Excellence Indicator System (2002-2005)

ⁱⁱⁱ Data reported by Clint Independent School District

^{iv} TEA Academic Excellence Indicator System (2002-2005)

^v Data reported by Texas City Independent School District

^{vi} National Assembly on School-Based Health Care (2000). Medicaid Reimbursement in School-Based Health Centers: State Association and Provider Perspectives. NASBHC: Washington, DC.

^{vii} National Assembly on School-Based Health Care (2003). 2002 State Survey of School-Based Health Center Initiatives.