



**Fiscal Year 2004  
Annual Report on School-Based Health Centers**

March 18, 2005

**Eduardo J. Sanchez, M.D., M.P.H.  
Commissioner of Health**

**Fiscal Year 2004 Annual Report on School-Based Health Centers**  
**Executive Summary**

Texas Education Code, Chapter 38, § 38.064, requires the Commissioner of Health to issue an annual report to the Legislature about the efficacy of school-based health centers (SBHCs) that are funded by the Department of State Health Services (DSHS). This report highlights service utilization trends, attendance rates, and academic achievement for SBHCs that received funding between FY 2002 and FY 2004. Multiple data sources, including case study information, quarterly report data, and data obtained from the Texas Education Agency, were used to determine the efficacy of DSHS-funded SBHCs.

**Key Findings**

- Seven SBHCs were funded by DSHS, of which three began operations in FY 2004. Only limited comparisons could be made for these recently enrolled schools.
- During FY 2004, more than 22,000 students across 40 campuses had access to a SBHC. More than 8,500 students, siblings, other family members and community members utilized DSHS-funded SBHC services. The majority of clients were middle school students (42.5%) and Hispanic (71%).
- Between FY 2002 and FY 2004, SBHCs continued to function as a primary medical home for many students, particularly those who were economically disadvantaged. During this time frame, SBHCs reported a 65.9% increase in the number of uninsured students who utilized services.
- Analyses of academic and attendance outcomes, using data from the Texas Education Agency, showed promising trends. A higher proportion of middle school students in a district with SBHC passed the standardized Texas Assessment of Knowledge and Skills exam relative to a comparison group.
- Higher attendance rates, relative to a comparison group, were reported for one campus with a SBHC. In addition, one middle school SBHC campus reported lower dropout rates relative to a comparison group.
- A case study of the Hays WELL Clinic suggests that school districts that implement a SBHC program may face challenges pertaining to staffing, billing or other administrative issues. Once established, support from school health administrators, in-kind services such as drug voucher programs and assistance with lab work can facilitate health services delivery
- SBHCs reported an increase in preventive care utilization between FY 2002 and FY 2004. In the WELL Clinic, the number of primary care visits, immunizations, and billings increased as the community became more aware of its services. Medicaid billings for all SBHCs increased over the same time frame.
- The WELL Clinic staff identified several lessons learned during the funding cycle. Some suggestions for school administrators who would like to implement SBHC services include: 1) obtain school district support; 2) recruit and hire sufficient staff; 3) learn as much as possible about protocols, paper work, and consent forms; 4) network with other SBHC program directors; 5) develop a public relations strategy; and 6) recruit volunteers.

## **Fiscal Year 2004 Annual Report on School-Based Health Centers**

### **Background**

In 1993, the School Health Program at the Department of State Health Services (DSHS), formerly known as the Texas Department of Health, began providing funds through a competitive application process to assist local communities in establishing school-based health centers (SBHCs). Located on school campuses, the health centers use a comprehensive, affordable, multi-disciplinary approach to address the health care needs of school-aged children. Often an array of services are provided, including immunizations, well-child exams, sports physicals, acute care for minor illness and injury, mental health services, basic health education for children and, in some cases, other members of the community. Because many of the students served by the centers face socio-economic challenges such as economic disadvantage and either limited or no health insurance, DSHS-funded SBHCs are often the main source of preventive and primary health care for many of the students in the participating school districts.

As authorized by the 76<sup>th</sup> Legislature, Regular Session in 1999, DSHS has provided SBHC start-up funding in accordance with the Texas Education Code (TEC), Chapter 38, §§ 38.051 through 38.064. A maximum of three years of funding is allowed and is not to exceed \$125,000 per year for each designated SBHC. During Fiscal Year (FY) 2004, DSHS funded seven SBHC projects.

### **Evaluation Methods**

Texas Education Code, Chapter 38, § 38.064, requires the Commissioner of Health to issue an annual report to the Legislature about the efficacy of services delivered by SBHCs in Texas. This report will highlight two key areas: 1) A case study of the Hays Consolidated School District (CISD) WELL Clinic; and 2) service utilization trend data as identified in the SBHC quarterly reports.

Three site visits were conducted at the WELL Clinic between 2002 and 2004. The purpose of the case studies was to examine: 1) program implementation and the strategies used to overcome challenges; and 2) the provision of services and the expansion of existing and new programs. Structured, open-ended interviews were conducted with key stakeholders during each site visit.

A key area of interest is to determine whether school-based health centers have an impact on educational outcomes such as academic achievement and attendance. However, the ability to determine these effects is hindered for two reasons. First, to the extent possible, SBHC campus measures were compared to the state, district, and respective comparison group measures. 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.

Second, during FY 2003, a new standardized test was administered to Texas school children. From a methodological standpoint, it is best to look at measurements from the same source, over time. Even for the schools that have received DSHS funding for three years, the change in exams makes academic achievement, as measured by standardized tests, an inappropriate indicator. It is

also worth noting that only four of the schools had been funded by DSHS for more than a year at the time this report was compiled. The other schools were new startups, many of which did not implement services until the third quarter of FY 2004. Therefore, because of these issues, this report will primarily focus on service utilization trends for DSHS-funded SBHCs, with an emphasis on schools that were in their second or third year of funding during FY 2004. Academic achievement, attendance rates, and dropout rates will only be examined for schools that were in their second or third year of funding during FY 2004.

### **Demographic Overview**

The Department of State Health Services funded seven school-based health centers during FY 2004. Overall, more than 22,000 students across 40 campuses had access to school-based health services during that period. Among districts that received funding, four were located near metropolitan areas: Hays CISD (near Austin, TX), Clint ISD (near El Paso, TX) and Galveston ISD and Texas City ISD (near Houston, TX). The others, Cedar Ridge Charter School (Lometa, TX), Somerset Independent School District (Somerset, TX), Sundown Independent School District (Sundown, TX), were located in rural districts.

According to program data submitted to DSHS, 71% of students who accessed DSHS-funded SBHCs were Hispanic, 24.6% were White, 4% were African American, 0.3% were Asian, and 0.1% were Native American. DSHS-funded SBHC project directors reported 11,005 student visits to SBHCs during FY 2004. Of the total number of student visits to a SBHC, 40.2% (N=4429) were by elementary school students, 42.5% (N=4884) were by middle school students and 15.3% (N=1692) were by high school students.

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. The proportion of students who are enrolled in SBHCs is determined by comparing the number of students who have a signed, parental consent form on file with the number of students who are eligible for enrollment in the SBHC. In many instances, family members, such as siblings or children of parenting teens, are also eligible to use SBHC services.

During FY 2004, approximately 10% (Clint ISD) to 100% (Cedar Ridge Charter School, Galveston, ISD and Texas City ISD) of the total student population at DSHS funded schools were enrolled in the participating school's SBHC. The total reported student enrollment for all DSHS-funded SBHCs was 7,094 students. In addition, more than 1,500 non-students, including siblings, other family members and community members, were enrolled in DSHS-funded SBHCs during FY 2004.

### **The Hays WELL Clinic: Final Case Study**

The Hays WELL (Wellness Encouraged through Lifelong Learning) Clinic received DSHS funding between FY 2002 and FY 2004. Although DSHS funding has ended, at the start of FY 2005 the clinic continued to provide a medical home for students in the Hays school district. The following sections highlight some of the WELL Clinic's challenges and successes, including barriers to program implementation, SBHC enrollment, provision of services and sustainability issues.

### **Barriers to Program Implementation**

FY 2004 marked the final year of DSHS grant funding for the Hays WELL Clinic. A total of three evaluation site visits were conducted between the Fall 2002 and Spring 2004. The facility began operations in November 2001. Despite several challenges along the way, the clinic consistently offered an array of preventive care services to students of the 14 campuses in the Hays school district<sup>1</sup>. A number of challenges that were identified during the first and second year continued to prove challenging for the WELL Clinic, particularly issues pertaining to staffing and coverage, billing, and administrative issues. The case study reveals that among the following barriers cited by WELL Clinic staff, many proved to be a hindrance for the duration of the funding cycle.

*Personnel Issues.* At the time of the third site visit, a medical director, a nurse practitioner, a registered nurse, a licensed vocational nurse and a receptionist staffed the clinic. Existing staff indicated that additional personnel were needed to complete tasks such as filing and other basic clerical duties. An additional nurse practitioner, particularly one who specializes in adolescent health care issues, would have lessened the burden for the WELL Clinic project director, allowing time to attend national and regional SBHC-related conferences and workshops and explore future funding options. The hiring of a second nurse practitioner would have also expanded the WELL Clinic's current coverage and lessened the work strain for current staff. In order to obtain Medicaid provider status, the WELL Clinic had to ensure that coverage was available 24 hours a day, seven days a week. Currently, individuals who seek assistance after hours are referred to Ask-A-Nurse, a service in which trained, registered nurses field telephone calls and assist callers in making informed decisions about their health care. In addition to the Ask-A-Nurse program, the WELL Clinic coordinator/nurse practitioner could be paged after regular clinic hours.

Shifts in administrative leadership, such as a change in project directors, also proved challenging for the WELL Clinic. During the three-year grant period, three different program directors managed school health services for the Hays CISD. The turnover in management hindered the continuity of clinic operations.

*Billing.* Another challenge relates to the clinic's management information system, Clinical Fusion. This system, which is a popular program with SBHCs, is designed to allow users to track patient information such as demographics, contact information (i.e. addresses, phone numbers), insurance status (e.g. health care plans, co-pay information), and patient health histories (e.g. diagnoses, immunizations, medications, and family history). However, since Clinical Fusion is not compliant with The Health Insurance Portability and Accountability Act of 1996 (HIPAA), the WELL Clinic staff were unable to use this system to bill electronically. Billing efforts have been completed manually rather than electronically. WELL Clinic staff are currently looking into other management information systems that would better serve their program.

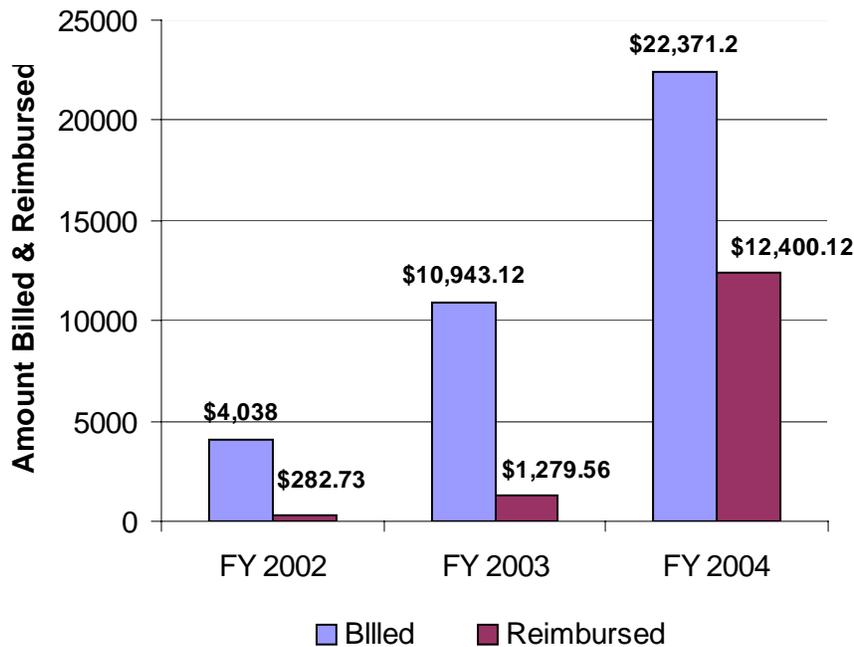
Even though the WELL Clinic was authorized to bill for Medicaid, this status proved problematic for the clinic (See Figure 1). The clinic reported a higher number of billings and reimbursements during FY 2004 as compared to previous years. However, similar to years one and two, the proportion of services that were reimbursed through Medicaid continued to be far less than the overall billing amount. During FY 2002, the WELL Clinic billed for \$4,038 and was reimbursed for 7% of the costs, or \$282.73. The clinic was reimbursed for 11.7% and 55.4% of the amounts

---

<sup>1</sup> Details are available in the 2003 SBHC report to the Legislature.

billed in FY 2003 and FY 2004, respectively. A research brief published by the National Assembly on School-Based Health Centers (2000) suggests 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 reported that of all services billed, only a small proportion was reimbursed, and only two states reported reimbursement rates greater than 50%. Thus, the WELL Clinic reimbursements to billings ratio for FY 2004 is unlike the national trend. Nonetheless, the inability to fully recover the amount billed for Medicaid has the potential to impact the provision of services and future sustainability.

**Figure 1. Hays WELL Clinic Medicaid Billings and Reimbursements**



**Enrollment**

During each year of DSHS funding, the WELL Clinic experienced a significant increase in enrollment (See Table 1). As previously noted, enrollment refers to the proportion or number of students who had a signed, parental consent on file and thereby had permission to utilize SBHC services. Table 1 depicts the number of students enrolled in the WELL Clinic during the three-year funding period. Between FY 2002 and FY 2004, the student enrollment increased by 183%. As indicated, the most significant increases in enrollment occurred during FY 2002 (1,550% increase) and FY 2003 (520% increase), with only a 17.1% increase in enrollment during FY 2004. Discussions with WELL Clinic staff suggest that the increase in the number of patients may be attributed to public relations efforts. Information about the clinic’s services, hours of operation, and programs were widely disseminated in the community and distributed in both English and Spanish. These efforts increased awareness among community members in general as well as among the community’s growing Hispanic population. By the end of the funding cycle, approximately 26% of all students were enrolled in the WELL Clinic.

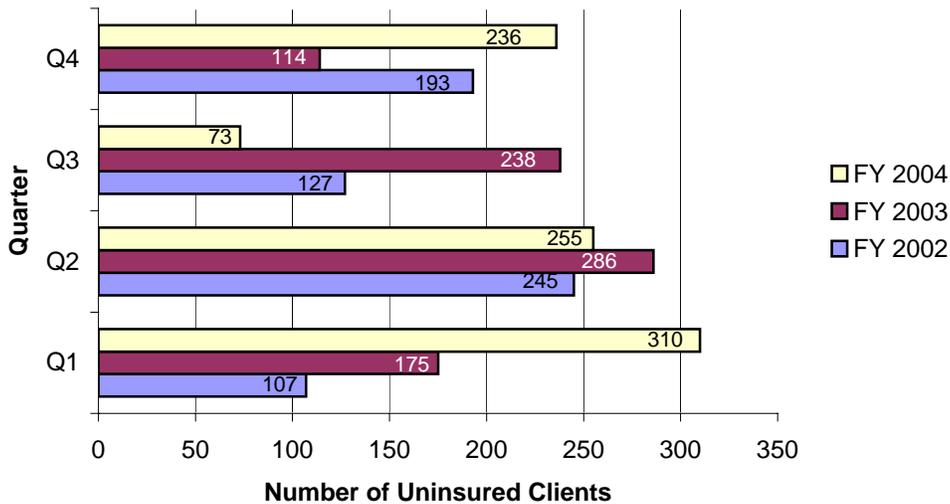
**Table 1. Hays CISD WELL Clinic Student Enrollment, FY 2002 – FY 2004**

Fiscal Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4
2002	50	150	582	825
2003	283	1272	1445	1756
2004	1995	2013	2187	2337

**Uninsured Clients**

Throughout the funding cycle, there was an increase in the number of uninsured students who were seen at the WELL Clinic (see Figure 2). During FY 2002, a total of 672 uninsured students received clinic services. There were 813 and 874 uninsured clients in FY 2003 and FY 2004, respectively. Reasons for the increased number of uninsured students are consistent with those identified in the FY 2003 report. That is, greater public relations efforts and awareness of the clinic among parents and the community have increased service utilization. In addition, the lack of access to adequate health care remains an issue for Texans ages 18 and younger. This trend, along with a decline in jobs providing insurance coverage and income may explain the increase in the number of WELL Clinic clients who were uninsured.

**Figure 2. Hays CISD WELL Clinic Uninsured Clients**



### **Provision of Services**

Despite the many challenges faced by the WELL Clinic, the provision of services was maintained throughout the course of the grant cycle. Since its inception, the clinic has routinely offered:

- immunizations,
- well child and sports physicals,
- treatment of minor illnesses, and
- referrals for chronic or life threatening conditions.

Support from the school health administrator, along with in-kind services from the Children's Hospital of Austin and Central Texas Medical Center, enabled the clinic to provide some medical services (e.g. lab work) not covered by the DSHS grant. Moreover, a three-year collaborative partnership with the grocery chain, H.E.B. Food Stores, allowed economically disadvantaged students to use pharmacy vouchers to purchase medications at little or no cost.

The WELL Clinic greatly expanded services during the funding period. For instance, prior to FY 2003, a need for mental health services was identified, and office space was made available for a psychiatrist or psychologist. However, a lack of funds prevented the provision of mental health services before FY 2004. Currently a psychiatric resident from the University of Texas Health Science Center in San Antonio is available bi-monthly to assist students in need of mental health counseling. In addition, a program, known simply as The Mother-Child Program (MCP), was initiated during FY 2004. The MCP is a "lunch and learn" program whereby mothers and their children receive healthy lunches and information packets, including information on baby and child-care. Pregnant and parenting teens comprise the MCP target audience.

WELL Clinic staff continued to emphasize the importance of dental hygiene. In addition to distributing toothbrushes and oral health information, plans are underway to utilize mobile dental units and develop a list of dentists who are willing to provide low cost dental care to economically disadvantaged students. Finally, the Hays WELL Clinic achieved Medicaid provider status, which means the clinic is now authorized to bill Medicaid.

### **Number of Student Primary Care Visits**

DSHS defines a SBHC primary health care provider as a medical doctor, nurse practitioner or physician's assistant who provides preventive and primary health care services. As noted in Table 2, there was an increase in the number of student visits to primary care providers during FY 2003 and FY 2004. The total number of student primary care visits increased by 25.3%, from 755 visits in FY 2002 to 946 visits in FY 2003. By the end of FY 2004, the WELL Clinic reported a 33.4% increase in the number of student primary care visits relative to FY 2003.

On average, there were 346 student primary care visits during the first three quarters of FY 2004 (See Table 2). During the fourth quarter, there were 222 student primary care visits at the WELL Clinic. The decline in primary care visits was similar to trends identified during FY 2002 and FY 2003. Service utilization among students runs parallel to general student needs. That is, between September and February, students are more likely to need primary care services for physicals, immunizations, and upper respiratory conditions such as the common cold or allergy related symptoms. The illnesses and other health care needs of children that are experienced during the fall and winter months are less prevalent at other times of the year, resulting in fewer clinic visits in the third and fourth quarters.

**Table 2. Hays CISD WELL Clinic Primary Care Visits**

<b>Year</b>	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>	<b>Total</b>
2002	69	220	246	220	755
2003	240	339	195	172	946
2004	343	350	347	222	1262

**WELL Clinic Immunizations**

During each of the last two years of the funding cycle, the WELL Clinic administered almost twice the number of immunizations that were reported in FY 2002 (See Table 3). The number of immunizations increased across each quarter in FY 2002. This trend paralleled the overall clinic service utilization. During FY 2003 and FY 2004, the trend associated with immunizations was less clear cut and tended to fluctuate throughout the year. Over 400 immunizations were administered during the first quarter. The number of immunizations declined during the second and third quarters.

**Table 3. Hays WELL Clinic Immunizations, FY 2002 – FY 2004**

<b>Year</b>	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>	<b>Total</b>
2002	115	195	224	358	892
2003	409	239	340	527	1515
2004	454	308	207	632	1601

**Common Reasons for Visiting the WELL Clinic**

Throughout the funding cycle, WELL Clinic clients were treated for a variety of illnesses. However, patients have consistently cited immunizations, sports physicals, well child physicals, and respiratory related problems as the most common reasons for visiting the WELL Clinic. In addition, commonly prescribed medications include Amoxicillin, Augmenten, Albuterol, decongestants, and antihistamines. All of these medications are used to treat upper respiratory illnesses.

Some clients experienced life threatening or chronic conditions that required referrals and extensive follow-up care. According to the FY 2004 quarterly report data, WELL Clinic staff cited serious problems that required referrals to medical specialists, including: possible rabies, eye injuries, diabetes, choleastoma, heart murmurs, and urinary tract reflux. The WELL Clinic has played an instrumental role in diagnosing the following medical conditions that were unknown to the patient:

- A 14 year old, white male was seen at the WELL Clinic who had been sick for several months. His family had no insurance, so he had not been able to get health care. He reported a recent weight loss, excessive thirst, and feeling sick. After getting a history and doing a physical exam, the WELL Clinic nurse practitioner checked his urine and found that his blood sugar was 467 and considerably elevated. He was later diagnosed with Type I diabetes.
- A 6 year-old Hispanic girl came to the WELL Clinic for several complaints. During the course of the history, her mother mentioned that the child had been

diagnosed in Mexico with a loss of vision and was told that there was nothing that could be done for her. The WELL Clinic staff referred the patient to an ophthalmologist, who diagnosed toxoplasmosis. She is now receiving treatment. Without the WELL Clinic, her vision would have continued to deteriorate to the point that it would not have been salvageable.

- A baby (of a student) from the PEP Center (the Hays CISD teen parent center) was seen by the nurse practitioner. She was seen at two weeks and at two months in the public health clinic, and the mother was told the baby was not growing well because she was not feeding her enough. She came to the WELL Clinic for the baby's four-month well child exam. The baby was immediately diagnosed with a heart murmur. The baby has been scheduled for further studies prior to future heart surgery.

These anecdotal accounts clearly indicate the importance of the WELL Clinic. Although on average students are seen for preventive care reasons, the clinic staff has been instrumental in recognizing and diagnosing serious ailments that require specialty follow-up care.

### **WELL Clinic: Sustainability Issues and Lessons Learned**

FY 2004 marked the final year of DSHS funding for the Hays WELL Clinic. The program faced a number of challenges along the way. However, information gathered from site visits and quarterly reports suggest that the SBHC has made progress. The clinic has experienced an increase in utilization by students over the three-year period and is now a designated Medicaid provider. More importantly, the clinic continues to expand services through programs such as the Mother –Child Program, oral health awareness and referrals, and health education materials in both English and Spanish. Although no other future funding sources had been identified at the time of the final case study visit, the Hays CISD school district was committed to supporting the clinic during FY 2005. Aside from district support, the WELL Clinic will continue to provide services such as medications and lab work through partnerships with H.E.B Food Stores and Central Texas Medical facility. In addition, the school district has hired a new grant writer who will be able to assist the WELL Clinic in developing and submitting grant proposals.

The WELL Clinic staff identified several lessons learned during the past three years. Many of these lessons pertain to implementation, support, and staffing. Suggestions for school districts that have an interest in developing a school based health center include:

- Obtain appropriate demographic information on school district
- Obtain district buy-in
- Request sufficient staff
- Be very specific about needs
- Learn as much as possible about protocols, paper work, and consent forms
- Network with other SBHC program directors
- Develop a public relations strategy
- Recruit volunteers

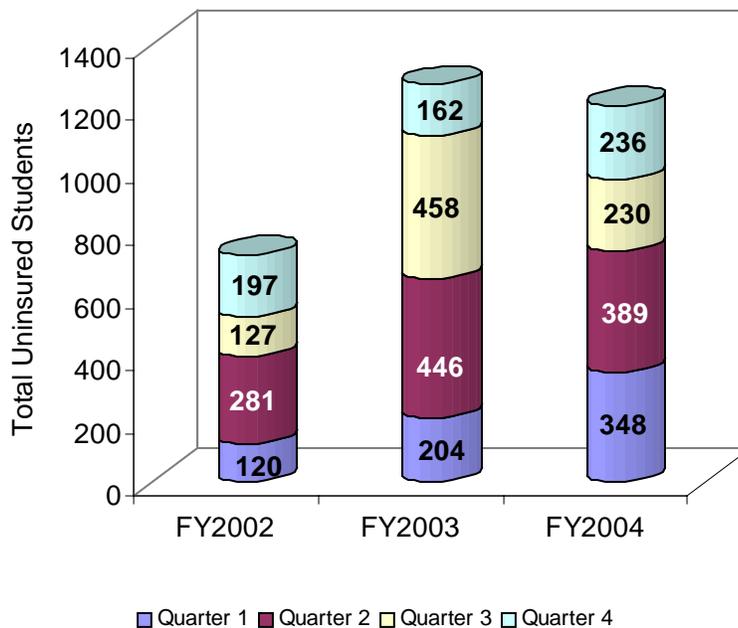
## Overview of Services of All DSHS-Funded School-Based Health Centers

The following is a summary of key findings abstracted from the FY 2004 quarterly reports, which were submitted to the DSHS School Health Program project coordinator. The reports highlight SBHC activities such as the number of visits, referrals, Medicaid reimbursement and anecdotal information. As previously noted, some of the DSHS SBHCs selected for FY 2004 funding did not begin providing services until the third quarter of the fiscal year. For this reason, only service utilization trends for established SBHCs (i.e. those that were in the second or third year of the funding cycle) are detailed below.

### Uninsured Clients

As more families became aware of the availability of the school-based health services, the number of uninsured clients utilizing SBHC services in the second and third years of the project showed a substantial increase over the number of uninsured clients during the first year of the project. The total number of uninsured clients who utilized SBHC services during the third year of the project showed a slight decrease from the previous year (See Figure 3). During FY 2002, SBHCs reported serving 725 uninsured clients. This number rose to 1,270 in FY 2003. A total of 1,203 uninsured students received services in FY 2004.

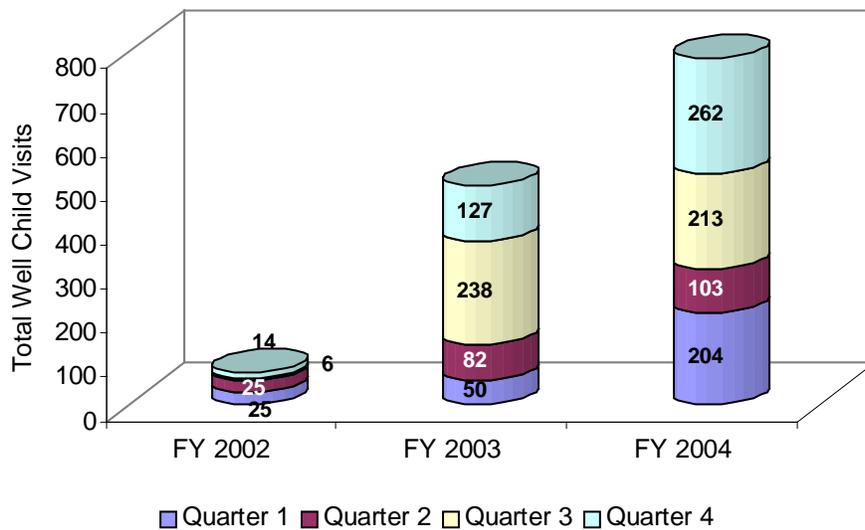
**Figure 3. Uninsured Clients: FY 2002 – FY 2004**



**Well Child Visits: FY 2002 – FY 2004**

DSHS-funded SBHCs reported a rise in the number of well child visits from FY 2002 to FY 2004. During FY 2002, a total of 70 well child visits were performed, followed by 497 and 782 in FY 2003 and FY 2004, respectively. The total number of well child visits conducted in FY 2004 was more than eleven times the total number of well child visits conducted in FY 2002 (See Figure 4).

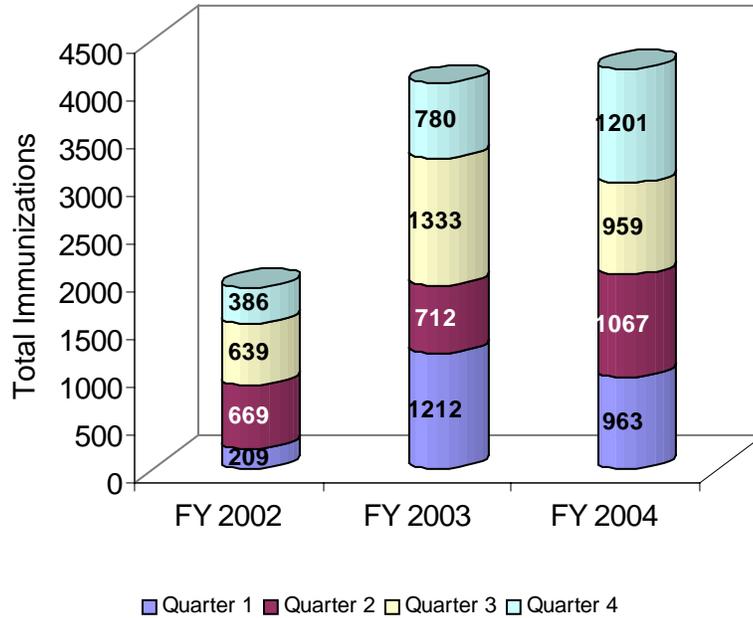
**Figure 4. Well Child Visits FY 2002 – FY 2004**



**Immunizations**

Overall, the total number of immunizations administered increased substantially from FY 2002 to FY 2003 (See Figure 5). During FY 2002 the highest number of immunizations occurred in the second quarter, with immunizations tapering off by the fourth quarter. By FY 2004, DSHS-funded SBHCs reported administering more than twice as many immunizations as were reported in FY 2002.

**Figure 5. Immunizations: FY 2003 – FY 2004**

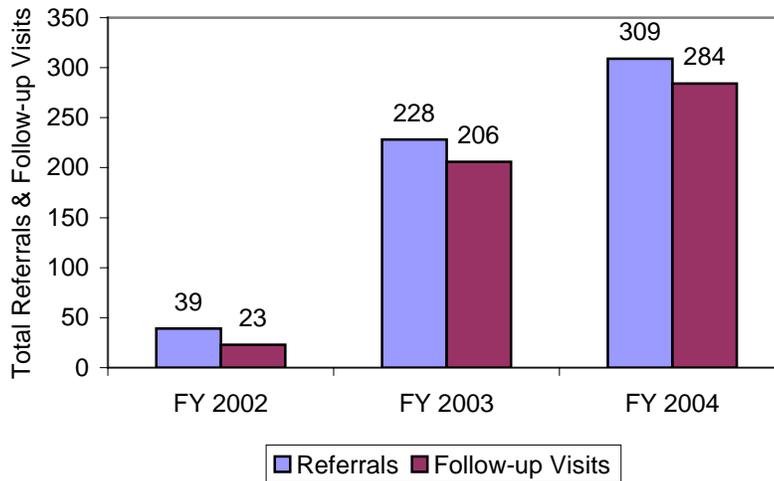


**Referrals and Completed Follow-Up Visits**

As previously noted, SBHCs provide a source of preventive care for many students. Immunizations, well-child visits, and physicals are the typical services provided by DSHS-funded SBHCs. Aside from routine care, referrals are made for specialty services and treatment for ailments related to vision, neurology, cardiology, and psychological problems. Figure 6 indicates that the number of referrals in FY 2004 was nearly eight times the number of referrals in FY 2002.

During FY 2002, SBHC center staff made a total of 39 referrals. A total of 309 referrals were made in FY 2004. The number of referrals that resulted in a known follow-up visit with a specialist also increased during the same time period, increasing from 23 follow-up visits in FY 2002 to 284 in FY 2004. Overall, the proportion of referrals that led to a follow-up visit ranged from 59% to 92%.

**Figure 6. 3-Year Funded School-Based Health Centers: Referrals and Follow-up Visits**



**Educational Outcomes**

One of the goals of the annual SBHC efficacy report is to examine the extent to which SBHCs have had some impact on academic achievement, attendance rates, and dropout rates. The ability to measure this goal for FY 2004 was hampered for two reasons. First, three of the participating schools that received DSHS funding were in their first year of implementation. Given the start up time necessary to implement a program of this nature, it is unlikely that any changes in academic achievement or attendance, if they exist, can be solely attributed to the SBHC. Second, the most recent data (i.e. academic year 2003-2004) regarding attendance and scholastic achievement is not available. Therefore, the analysis was limited to SBHCs that had been in existence for three years, allowing for an examination of the changes in attendance rates. Third, one of the indicators of interest, school dropout rates, is only available for middle schools and high schools. Only one of the DSHS-funded SBHCs falls in this category – Austin Middle School (Galveston ISD). Trends in dropout rates were examined for this school only.

For the purpose of analysis, the Texas Education Agency describes the school comparison group as a set of 40 schools that are similar to the campus school in terms of demographic characteristics (i.e. race/ethnicity, % economic disadvantage). Educational outcomes for each SBHC campus were compared to the campus school comparison group as well as the overall state and corresponding school district outcomes.

**Academic Achievement:** During the 2002 – 2003 school year, a new academic test, known as the Texas Assessment of Knowledge and Skills (TAKS), was administered to students in grades 3 – 11. Data for three campuses (Austin Middle School, Galveston ISD; Green Elementary, Hays CISD; and Sundown Elementary, Sundown ISD) and their corresponding districts were examined. The campuses were a focal point of the analysis because the SBHCs were operational at the aforementioned campuses. Relative to the school group proportion (51% = seventh grade; 53.1% = eighth grade), a higher proportion of seventh (56.8%) and eighth grade students (68.6%) in the Galveston ISD passed the test. This difference was statistically significant at the .05 level.

Two SBHCs housed at elementary schools were also examined. A slightly higher proportion of fifth grade students at Green Elementary School in Hays CISD (60.2%) passed the TAKS in comparison to fifth grade students who comprised the school's comparison group (59.3%). However, this difference was not statistically different. Overall, fifth grade students in the Hays CISD (66.2%) performed slightly better than the state average (65.9%).

Fourth grade students at Sundown Elementary School in Sundown ISD passed the TAKS at a higher rate (80.6%) than students at the state level (75.8%). This difference was not statistically significant ( $p < .05$ ). Fifth grade students at the same campus passed at a higher rate (83.3%) than fifth grade students at the state level (65.9%) and relative to the school's comparison group (67.6%). These differences were statistically significant at the .05 level.

*Attendance Rates:* Two campuses, Green Elementary (Hays CISD) and Austin Middle (Galveston ISD), reported an increase in the attendance rate from 2001 to 2002. During the 2001-2002 academic year, the attendance rate for Green Elementary (96.9%) was slightly higher than the overall state (95.6%), the district (96%), or the school group (96.8%) rates. A test for significance indicated no significant difference between these campuses and the state, district, or comparison group rates.

*Dropout Rates:* Dropout rates are calculated for schools in which students in grades 7-12 are enrolled. Of the DSHS-funded SBHCs that were funded at least three years at the time of this report, only one was a middle school. TEA data indicate that the dropout rates for Austin Middle School dropped from 0.3% in 2000-2001 to 0% in 2001 - 2002. The 2001 - 2002 dropout rate was lower than those reported at the state (0.9%), district (0.8%), and school group (0.4%) levels.

Future evaluation efforts will include data gathering strategies that utilize both macro level data and data collected from students who utilize DSHS-funded health centers. Until a more extensive methodological strategy is designed and implemented, a true correlation between SBHC utilization and student education outcomes is not feasible.

## **Conclusion**

DSHS-funded school-based health centers provide preventive and primary care to many medically underserved students in Texas. During FY 2004, students across 40 campuses had access to a DSHS-funded SBHC. Overall, more than 8,500 students, siblings, other family members and community members utilized these SBHCs.

School-based health centers that had received funding for two or more years were examined in aggregate. Between FY 2002 and FY 2004 significant increases in immunizations, well-child visits, referrals and follow-up visits, and uninsured clients were noted.

The relationship between SBHCs and academic achievement was also examined. Data for three campuses were compared to state, district, and comparison group data. A higher proportion of middle school students (Austin Middle) passed the TAKS exam compared to the proportion reported for the school's comparison group. This difference was statistically significant at the .05 level. In some instances, students at the elementary school level also passed the TAKS at a higher rate than when compared to students in the comparison group. Higher attendance rates relative to the state, district, and school group rates were reported for one SBHC campus (Green Elementary

– Hays CISD). In addition, Austin Middle School (Galveston ISD) reported lower dropout rates relative to state, district and comparison groups.

Districts often face challenges when trying to establish and implement an SBHC program, particularly when it comes to issues such as staffing, billing, and other administrative issues. As evidenced by the case study conducted at the Hays CISD WELL Clinic, some challenges such as Medicaid billing and staffing were consistent issues throughout the funding period. However, the clinic made significant progress during that time. Support from school administrators coupled with in-kind services such as prescription drug voucher programs and assistance with lab work allowed the WELL Clinic to provide a consistent stream of services to the targeted area.

As the community became more aware of the WELL Clinic, the utilization of services increased. Between FY 2002 and FY 2004, the WELL Clinic saw significant increases in enrollment, the number of primary care visits, immunizations, and billings. The clinic also witnessed an increase in Medicaid reimbursements, which was contrary to trends identified by the majority of school-based health centers nationwide. The WELL Clinic also witnessed an increase in the number of uninsured clients.

Issues for schools to consider in the planning and early implementation phases of an SBHC project include school district support, staffing needs, protocol development, and public relations strategies.