

**Final Narrative Report
State Oral Health Collaborative Systems (SOHCS) Grant
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Project Title: "Future Smiles Dental Clinic"

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A. Purpose:

Many organizations and agencies in Central Arkansas confront children's dental health needs on a daily basis. Anecdotal evidence for years has pointed to a serious problem with access to adequate dental care for many children in the Little Rock, Arkansas School District. Interested parties in the area fully realize that only through collaboration on many levels can we hope to alleviate this problem.

The Dental Health Action Team (DHAT) was formed in 2000 to address these concerns. Fourteen separate Central Arkansas organizations comprise the DHAT:

- University of Arkansas at Little Rock (UALR) Children International (formerly UALR Share America)
- Arkansas Department of Health, Office of Oral Health
- University of Arkansas for Medical Sciences, Dental Hygiene Program
- Delta Dental Plan of Arkansas, Inc.
- Arkansas Department of Human Services, Division of Medical Services
- Arkansas Department of Education
- University of Arkansas Cooperative Extension Service
- Little Rock School District
- Arkansas State Dental Association
- St. Vincent Health System
- Arkansas Minority Health Commission
- United Way of Central Arkansas
- Arkansas Children's Hospital, and
- Arkansas Advocates for Children and Families.

During the school years 2000-2001 through 2004-2005, the Dental Health Action Team has collected data on oral health and sealant utilization. A series of dental screenings conducted in the Little Rock School District has involved more than 10,000 children in UAMS Head Start Centers and in the UALR Children International program. The surveys included data on decayed, missing and filled primary and permanent teeth; caries rates; untreated caries rates and sealant prevalence. (See Figure 1)

Elementary schools in the Little Rock School District were selected for study and included those schools with low socio-economic status as indicated by the percentage of children on the free lunch and reduced-cost lunch program. These schools were targeted because they had students who participate in the UALR Children International and UAMS Head Start programs. The dental screenings were conducted by dentist members of the DHAT, other local volunteer dentists, faculty from the UAMS Dental Hygiene program, and UAMS dental hygiene students working under the personal supervision of licensed dentists.

Referrals for follow-up care were indicated as routine or emergency. Referrals in the most serious category indicated that the child had apparent pulpal involvement, the child already experienced tooth pain or, in the examiner's clinical judgment, the conditions would soon cause abscess or pain.

Information from the dental screenings has helped convince parents, policy makers, legislators, and advocates of the need for increased access to dental care. Without optimum oral health, children cannot succeed in school, perform basic daily activities because of dental pain, nor show a healthy, happy smile to the world.

Figure 1 - Results of Surveys

Dental Health Action Team Screenings	# children screened	# children 1st grade and higher	Permanent teeth			Primary teeth			Children with Sealants present	Sealant %	affected by caries		untreated caries		referred for routine care	referred for emergency care
			D	M	F	d	m	f			#	%	#	%		
School year																
2000 - 2001	2272	1572	605	10	599	1672	284	2141	39	2.5%	1307	57.5%	854	37.6%	636	114
2001 - 2002	1953	863	496	1	342	2379	285	1509	16	1.9%	1091	55.9%	805	41.2%	525	245
2002 - 2003	2299	1205	388	7	601	2294	290	2285	73	6.1%	1345	58.5%	862	37.5%	508	208
2003 - 2004	1530	1194	225	2	338	1117	302	2221	110	7.2%	952	62.2%	484	31.6%	282	125
Totals	8054	4834	1714	20	1880	7462	859	8156	238	3.0%	4695	58.3%	3005	37.3%	1951	692

Of the more than 8000 children screened through 2004, 86% were African-American, 7.2% were Caucasian, 6.4% were Hispanic, and 0.4% were of other ethnic background. Twenty-four percent of the students were referred for routine dental care and an additional 9% were referred for emergency dental treatment. The 8054 children screened had 20,091 teeth affected by caries, resulting in a DMF/dmf (decayed, missing, filled) of 2.49. Ninety percent of the children screened participate or are eligible for the free or reduced cost lunch program in their schools. The rate of eligibility in the individual schools ranged from a low of 86% to a high of 98%.

The rate of untreated caries was higher than the statewide rate for Arkansas. The untreated caries rate in Little Rock was 37.3% as compared to 31.6% statewide. This data shows that Little Rock lags seriously behind the Healthy People 2010 goal of 16% of 6-8 year olds with untreated caries on primary and permanent teeth. However, this comparison only underscores the problems with access to care for Little Rock children. The statewide data is from a random sample of schools across Arkansas, some with no dental services available locally. The Greater Little Rock metropolitan area by contrast has almost one-third (381) of the dentists in the entire state.

Only 3.0% of those children examined, first grade and older, had dental sealants on one or more molar teeth. Sealant usage in Little Rock is abysmally lower than the national rate, 3.0% compared to 23.0% from NHANES III, and only one-fifth of the Arkansas statewide rate of 14.9% (Arkansas Department of Health's 2003 Statewide Dental Needs Assessment Survey).

Of 1,072 dentists licensed in Arkansas, only 402 are contracted as providers under "ARKids First," Parts A and B, the state Medicaid and SCHIP waiver programs. Statewide, less than one hundred of those Medicaid providers participate at \$1000 or more of dental care each year. The Greater Little Rock metropolitan area, with almost 250,000 population, has only eight Medicaid dentists enrolled. None of these providers is located in Southwest Little Rock, near the Children International schools.

A recommendation of the Arkansas Oral Health Plan, formally adopted by the 34 member organizations of the Arkansas Oral Health Coalition, is to "create

opportunities to take oral health services into areas not currently served.” A strategy to address that recommendation is to “use community groups and potential funding sources to create new programs for community dental services, including but not limited to mobile dental operatories, portable dental operatories, and school-based/school-linked dental services.”

The ultimate goal of the DHAT is to ensure that all children in Arkansas enjoy optimal health through improving oral health outcomes and reducing disparities among children. To that end, the DHAT has undertaken an ambitious project to identify the children with oral health needs and help the children and their families access quality dental care.

The immediate result of the dental screenings was the establishment of a school-based dental sealant program in the six Children International schools. Beginning in 2002 and continuing through 2005, the DHAT Future Smiles sealant project has provided dental sealants to more than 900 Pulaski County third-grade students. Using volunteer dentists, dental hygiene students from UAMS, school adult volunteers, and portable dental equipment, the project provides direct services in the school setting. The four sets of portable dental equipment used in the project were purchased by UALR Children International and Delta Dental Plan of Arkansas, Inc. The school-based dental sealant program, along with a targeted media campaign, has helped increase the dental sealant rate in the Share America schools from 2.5% in 2001 to 7.2% in 2004.

Because the target population shows high caries rates, a significant percentage with emergency dental needs, and little access to dental services, Future Smiles has undertaken an expansion of current programs to provide comprehensive dental services in the UALR Children International schools in Southwest Little Rock.

The goal of the Dental Health Action Team is to establish and maintain a new community dental system where none exists, supporting the health and well-being of Medicaid-eligible children in the low socio-economic status area of Little Rock, Arkansas. The DHAT has established a school-based dental clinic/hub, the **Future Smiles Dental Clinic**, for the children at highest risk. The clinic,

located at Wakefield Elementary School, has served children in six elementary schools, including those children enrolled in the Children International program.

The clinic enhances the preventive oral health services offered and provide comprehensive oral health services for children. The current Children International students, the overwhelming majority of students in the six target schools, have been the initial source of patients. The Future Smiles Dental Clinic now serves all students in the target schools, targeted middle school students and Head Start children.

Management of the Futures Smiles project is as follows:

- Dental services are coordinated by UALR Children International in partnership with the Dental Health Action Team and Little Rock School District.
- The Future Smiles Dental Clinic Community Steering Committee, made up of representatives from each partner organization, parents and key individuals from the community-at-large oversees the program.
- Six elementary school sites, serving approximately 2300 underserved school children, will participate in the program to include annual screenings, sealants and follow-up treatment services through the clinic.

Because of the importance of community involvement and partnership in such a program, numerous commitments from collaborating organizations are in place. The Little Rock School District (LRSD) provided clinic space, utility and custodial services at no cost to the program.

Additional support for the Future Smiles Dental Clinic is provided by many community partners. UALR Children International serves as the coordinating organization and leads the clinic efforts. Expanding on their current support of healthcare for students, Children International provides van transportation for children to the dental clinic from the other five schools.

Because of the 10-year working relationship between UALR Children International and the schools, parents, volunteers, administrators, teachers and

school staff were excited about making the new clinic a success. The Arkansas Department of Health assists with necessary permits, waivers, and regulatory compliance for clinic operation. In addition, the Department assisted with obtaining a Medicaid number for the clinic and helped recruitment and enrollment of students into the ARKids First program (Medicaid).

United Way of Pulaski County committed \$50,000.00 in annual support for the first three years of clinic operation. To encourage ongoing donations, United Way included designation of the Future Smiles Dental Clinic as a selection on 2003 through 2007 campaign literature. Each year, approximately \$7,000.00 was donated for Future Smiles. The Director, Office of Oral Health, a member of the United Way Charitable Contribution Campaign Cabinet, cooperated with United Way in targeted efforts to garner additional contributions from the central Arkansas dental community. Children International, the parent organization of UALR Children International also provided an additional grant of \$25,000 for purchase of dental equipment.

Sustaining the operation of the dental clinic now relies on Medicaid billing, continued donations through United Way, and other grant opportunities. Within just the past six months, an additional \$10,000 in grants have been received and more than \$50,000 in additional grant applications are pending.

All students in the targeted schools are eligible to receive care in the dental clinic, based on the phases outlined in the five-year plan. Efforts to enroll children in ARKids First are ongoing and include the Arkansas Department of Human Services and LRSD school nurses. Because Southwest Little Rock has a large Hispanic population, all forms, applications and educational materials are offered in both English and Spanish. To support the Future Smiles clinic, UAMS dental hygiene students provided dental cleanings, fluoride, sealants, and x-rays at the UAMS clinic as needed, with Children International continuing to provide transportation.

B. Goals and Objectives:

Objective 1: To work within the Dental Health Action Team structure to establish a dental clinic in the new Wakefield School.

The Little Rock School District constructed the area for the dental clinic in the rebuilt Wakefield Elementary School, destroyed by fire in 2003. Working with the Dental Health Action Team (DHAT), including the Little Rock School District, the dental clinic was completed and equipped. A formal dedication ceremony was held on October 25, 2004 with Congressman Vic Snyder of Arkansas, representatives from the DHAT, Wakefield Elementary School Principal Les Taylor, and Little Rock School District Superintendent Dr. Roy Brooks.

Patterson Dental Supply has been an integral partner in the project by providing free consultation and design services and providing some of the dental equipment at cost. Patterson has also provided free maintenance on dental equipment when the need arises.

The Future Smiles Dental Clinic has already garnered additional financial support from United Way of Pulaski County, Children International, in-kind services from UALR Children International, the Arkansas Department of Health and others.

Objective 2: To develop a Community Steering Committee for oversight.

The Community Steering Committee was formed by expanding the DHAT to include representatives from the school, the school district and parents of school children participating in the clinic.

Objective 3: To provide comprehensive preventive and restorative dental services in the school-based setting.

The clinic has been in operation since December 2004, three months later than anticipated, due to problems with final construction, equipping and staffing of the clinic. As in most other states, Arkansas suffers from a maldistribution of dentists resulting in dentally underserved areas of the state. Student loan commitments, often in excess of \$100,000, keep new dentists who want to repay loans quickly from practicing in areas with decreased

opportunities. The trend for dentists to practice in areas of the state where incomes are highest made staffing the clinic much more difficult than anticipated.

Before the clinic was in full operation, it was used as the site for the annual dental screenings and the DHAT dental sealant project, where volunteer dentists and dental hygiene students from UAMS placed dental sealants for children in Wakefield Elementary School. In years past, the project used portable dental equipment in the classroom setting.

A major partner in the staffing effort, Arkansas Children's Hospital, encountered serious barriers in developing a hiring protocol for the clinic, and in locating and credentialing a qualified dentist for the clinic.

With the hiring of Dr. Shawn McMoran, a pediatric dentist formerly working full-time at Arkansas Children's Hospital, in May of 2005, the clinic provided comprehensive dental services to the students attending the six Little Rock schools participating in UALR Children International. New agreements between Arkansas Children's Hospital and Children International now provide for Dr. McMoran to staff the clinic a total of three days each week. In addition, a colleague of the Office of Oral Health works in the clinic at least one-half day each week to provide support and oversight of clinic operations.

Based on dental screenings conducted throughout the school year, students are "triaged" to provide dental treatment for those children in pain and with the most serious dental problems. UAMS dental hygiene students rotate through the clinic on weekly assignments providing preventive dental care under faculty supervision. The clinic is open throughout June and July each year treating those children attending the UALR Children International summer camp at Wakefield Elementary School.

Through Medicaid outreach, the clinic helps address MCHB Performance Measure # 12. Statewide, 31 percent of children under age 21 enrolled in Medicaid for at least 6 months continuously during the year received any preventive or treatment dental service.

Objective 4: To provide educational opportunities for children and their parents on the importance of optimum oral health.

The Future Smiles clinic has provided educational opportunities for children and parents of Wakefield Elementary School. The Clinic Manager, Ms. Jolene Perkins, conducts tours of the clinic for the students, their parents, school administration and teachers as well as for interested community leaders. The very presence of the clinic within the school has provided ongoing opportunities to emphasize oral health issues within the existing health education curriculum. Because an oral health curriculum for kindergarten through grade 12 was mandated by action of the 84th Arkansas General Assembly in 2003, the clinic provides a unique setting to assist in that required curriculum. The clinic has been featured in local print and broadcast media further enhancing opportunities to take oral health messages to the general public. In addition, the Children International website continues to enjoy more than ten thousand hits each reporting period.

C. Evaluation:

Evaluation of the Future Smiles Dental Clinic included annual assessment of policies, procedures, services, staffing, and operations. Ongoing evaluation has included data collection on the number of children served, preventive and restorative services provided, educational presentations made, demographic data, and dental sealant retention rates. Evaluation also includes continued dental screenings to determine improvement in caries rates, decreases in the rate of untreated caries, and a comparison of dental access as it relates to student absenteeism

Using the Eaglesoft™ software, the clinic manager tracks dental visits, numbers of patients treated, procedures performed, cost of dental services provided, average cost per patient and types of procedures. Procedures are classified as to preventive, restorative and surgical (extractions) services.

The project is utilizing school district databases to determine if participation in the dental clinic reduces absentee rates. The Evaluation Committee has collected absentee data for the 2003-2004 through 2006-2007

school years and is working to compare that data against previous absentee rates.

D. Workplan

Now that the clinic is equipped and staffed, students from all six UALR Children International schools have received dental care in line with the 5-year plan. The plan calls for three phases. Phase one (the first full year of operation) provided for addressing the emergency/immediate dental needs for students referred by screenings from all six partner schools and restorative needs for Wakefield students and providing oral health education as appropriate. Phase II (years two and three) provided for serving the restorative needs of children for all six schools. Phase III (year four and beyond) has served comprehensive needs of all children in six schools and middle school students in Children International Youth Leadership Program.

The SOHCS grant has provided contractual funding to UALR Children International to support the dentist's salary. This has allowed for full-scale operation of the clinic and provide access to dental care for students in all six participating schools. UALR Children International continues to provide transportation for children in the five schools apart from Wakefield Elementary. In addition, the grant provided funding for the required grantee meetings to work with MCHB staff.

E. Regional and National Significance:

The Future Smiles Dental Clinic is the first elementary school dental clinic in Arkansas history. As a first effort in the area, the clinic generated considerable interest from many quarters. UALR Children International and the Clinic Manager continue to receive inquiries from other schools in Central Arkansas, communities around the state, and from other states in the region. The Clinic Manager attended the 2006 SOHCS grantee workshop where she presented on the success of the project.

Dental sealant rates are a performance measure of the MCH Block Grant. Because preventive dental care is a targeted outcome of the Future Smiles Dental Clinic, dental sealants are an important part of clinic operations. Dental hygiene students from UAMS place dental sealants during their rotations. In addition, the clinic is the base for the annual dental sealant program at Wakefield Elementary. Using the clinic has streamlined the dental sealant project at Wakefield and sealant rates and retention rates for dental sealants have improved dramatically.