

## **Coshocton Children's Clinic Serves Poor Children of Western Appalachia in Public-Private Partnership**

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The Coshocton Children's Dental Clinic was formed in 1986 as a cooperative effort between the Coshocton Children's Dental Clinic Foundation and the Section of Pediatric Dentistry of the University of Ohio State University. The purposes of the clinic are to (1) provide dental care to children in Coshocton County, OH, who are under 16 years of age and covered by Medicaid, ADC, EPSDT, Title XIX or from families with incomes below 125% of federal poverty guidelines and older children with handicapping conditions, and (2) to provide dental and dental hygiene students with pediatric care experiences in an underserved population. The clinic is a 5-operator facility adjacent to a community general hospital in Coshocton, OH, a small city in east central rural Ohio. In the years of operation 1989-1997, the clinic has treated over 6,700 children, in over 8,000 visits, providing the full range of dental services for children. During the years 1986-1998, over 800 dental students, 200 dental hygiene students, and 15 pediatric dental residents were trained in delivery of pediatric dentistry to this underserved population. The project continues with a fellowship through the Section of Pediatric Dentistry and Columbus Children's Hospital.

## **A Document to Help Dental Students Identify Risk Factors to Common Oral Diseases**

F.S. Ferguson

A major challenge for dental students is to be able to obtain pertinent information during the caretaker interview and the examination regarding risk factors to pediatric common oral diseases. Further, it is difficult for clinical faculty to determine that students recognize risk factors, understand the implication of risk factors in the oral health care of the child, and provide appropriate caretaker counseling given the limitations of the dental school clinic visit. A protocol document was developed to provide the student guidance for the caretaker interview and child examination. This document classifies risk factors into social, medical, diet, fluoride, plaque control, and clinical categories. It also provides the student and faculty preceptor a template for discussing the oral health concerns, home and professional oral health activities and care specific for the child. This document also offers the Department of Children's Dentistry a method to determine demographics, oral health characteristics, and oral history of the pediatric population who present to the Dental Care Center. This protocol was started in September of 1999. Data will be ready for presentation by the Spring of 2000.

## **An Innovative Program to Enhance Dental Health Education Among Low-Income Children**

E.H. Hines, K.B. Chance and W.J. Seibert

Meharry Medical College School of Dentistry is participating in its third year of a unique educational and service program. Second year dental students are prepared for experiences in low-income communities by carefully designed behavioral objectives which are taught by Meharry's dental faculty and psychology faculty from Tennessee State University. The objective is to foster sensitivity to the cultural and social norms often observed in low-income populations. The methods include the introduction of practical exercises that encourage partnership development between students and residents. Students are trained to overcome barriers of communication, trust and fear. The focus of the Meharry program, Nashville's J.C. Napier public housing, is preventive dental intervention for the children, ages 10-12, who are enrolled in the Opportunities For Kids after-school program directed by the J.C. Napier residents. The Meharry program addresses high caries prevalence with parents and children by the culturally sensitized second year dental students. Strategies are identified to increase awareness of the roles of client and provider attitudes, beliefs and behavior on oral disease prevention. Current and expected outcomes: A foundation of trust and understanding is established through knowledgeable personal interactions. Students desire to practice in this population is increased. Patient compliance is increased. This program established a demonstrable framework for effective support of the mission of the college by providing compassionate and quality service to under served populations.

## **Expansion of Pediatric Dental Residency Postions Through Distance Education Technology**

R.E. Primosch

A potential strategy to assist the elimination of the current disparities found in children's oral health is to develop innovative approaches to expanding the number of training positions available in advanced pediatric dentistry specialty education. By expanding the number of training positions, a greater number of children in under-served communities would be able to better access preventive and therapeutic dental services, thus impacting on the disparity in oral health care noted among many indigent populations. There exists currently a significant shortage of pediatric dentists due to the limited number of training opportunities (Waldman, 1998; Houpt, 1999). The creation of new training positions is hampered by lack of adequate resources, especially dedicated faculty. Even though the percentage of applications to pediatric dental residency programs unchanged (Weaver, 1999), leaving many qualified applicants unable to obtain their desired training.

In Florida, a unique partnership between a state university (University of Florida) and a private hospital (Miami Children's Hospital) was initiated in response to the critical workforce need in the state. Four new residency positions were begun at this distant hospital site with an excellent clinical facility and staff but an insufficient faculty to provide the didactic instruction required to meet the accreditation standards for an independent program. A critical segment of the problem-based didactic instruction was conducted using interactive videoconferencing between the two training sites synchronously. A survey of faculty and residents found a high level of user satisfaction with the distant learning technology and the ability to effectively teach and learn by this medium. Implementation of distance learning was a key ingredient to permit the expansion of new training positions and to supply pediatric dental providers to a geographical region in critical need.

## **Dental School Training Can It Affect General Dentists' Attitudes About Treating Preschool Aged Children**

Kathy Cotton, DMD, MS

The purpose of this study were to investigate access to dental care provided by general practitioners for preschool-aged children and to identify the relationship between dental school experiences and practitioners' attitudes about treating these children. A survey was mailed to 3,599 randomly selected general dentists in Texas. Respondents were asked to answer questions about: age they believed a child should make the first dental visit; their willingness to provide specified dental procedures for children of different ages; their dental school experiences with pediatric dentistry and whether these experiences were hands-on, lecture or no training; and their attitudes concerning treating Medicaid-eligible children 3 years of age or younger. The response rate was 28%. Only respondents were willing to provide routine procedures such as exam (95%) and prophylaxis (94%) for children 5 years or younger. However, as children became younger and procedures more difficult, the number of general dentists willing to provide treatment declined. The level of dental school training was significantly associated with the attitudes of general dentists about providing dental care for pre-school-aged children ( $p \leq 0.05$ ). The most consistent and highly significant associations between attitudes and educational experiences were found for dental school curriculum associated with hands-on educational experiences with very young children. Identification of factors associated with general dentists' willingness to see young children may improve access by increasing the number who will provide care for preschool-aged children.

## **COHIT: An Innovative Program to Enhance Pediatric Dental Services for a Low-Income Population.**

E. H. Hines,\* J. H. Owens, Meharry Medical College School of Dentistry, Nashville, TN

Dental health services for the low income populations of Tennessee are funded largely by TennCare (i.e., Medicaid). Difficulties associated with this form of privatized managed health care have made low-income populations in middle Tennessee especially vulnerable to decreasing health care availability. Meharry Medical College School of Dentistry's division of pediatric dentistry addresses the problem of accessibility of pediatric dental services in the middle Tennessee area by partnering in a totally unique external, privately funded, independent, not for profit, educational, and research dental service entity; The Children's Oral Health Institute of Tennessee (COHIT). The goal of COHIT is to provide high quality dental services, with a preventive and community based mentoring focus, to the low income population of middle Tennessee. Approximately (30%) of the area TennCare pediatric population receives its pediatric dental services from COHIT. No restrictions apply to patient acceptability. COHIT, founded in 1993, is directed by Dr. June H. Owens; faculty member of the dental school's division of pediatric dentistry, a pediatric dentist, and a Meharry graduate. Program policy is directed by a non-paid board of directors which includes the director of Meharry's division of pediatric dentistry, and two additional community leaders. COHIT is the only pediatric dentistry USDPH loan repayment site for dentists and hygienists. Third and fourth year dental students rotate at COHIT. This supervised and focused educational experience provides a working model of service for low income populations. Meharry students are being groomed to assume leadership roles in the provision of dental services in similar under served settings.

## **PARTNERSHIPS WITH A POSITIVE IMPACT ON CHILDREN'S ORAL HEALTH**

Michael D. McCunniff

Numerous studies of state Medicaid programs have indicated problems with patients being able to access services. One particular area of concern for Medicaid enrollees has been access to dental care. With the initiation of the CHIP program, the problem has been magnified. A partnership was established to address short and long term solutions to the access issue for Medicaid patients of Missouri and the goals of outreach for a state university. Collaborative efforts with the UMKC School of Dentistry, the Department of Health, the Missouri Dental Association and public policy makers established an outreach program that allows dental and dental hygiene students to continue a portion of their formal training in the community, known as service learning. Funding was carved out from the Medicaid budget for support of the program to be set up in areas where dental needs of underserved populations are not being addressed. This allows students to not only deliver comprehensive care, but to experience first hand the reality of specific populations unmet dental needs and also reinforce their ethical responsibility to society. The program also recruits local providers from the community to participate as mentors for the students. The students evaluate possible long term solutions to address the access problem and make recommendations to community leaders. Preliminary results have found a positive impact on the oral health of the children being treated, augmented long range community planning and increased awareness of a growing problem for professional students.

## **Incorporating Infant Oral Health into a Predoctoral Dental Curriculum.**

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Early childhood caries (ECC) has been shown to have a prevalence of approximately 5%, however recent studies in Southern Texas have noted a prevalence of 13.5%. The apparent limited number of pediatric dentists in Southern Texas indicated the need to train graduating general dentists to provide pediatric dental care.

A predoctoral Infant Oral Health Program has been initiated at the UTHSCSA Dental School which includes a didactic component and clinical component. Didactic lectures include ECC epidemiology, ECC cariology, infant examination, early childhood prevention strategies, and atraumatic restorative techniques. The clinical component includes infant examinations, application of prevention strategies and at least observation of atraumatic restorative techniques.

Upon graduation, surveys to graduates of the dental school will provide outcome assessment regarding the incorporation of infant oral health within their clinical dental practices.



## **The Louisiana Dental Medicaid Experience: A System That's Working**

Robert E. Barsley, D.D.S., J.D., Director of Dental Health Resources, LSU School of Dentistry

The dental Medicaid EPSDT Program in Louisiana has been in existence since the early 1970s. The program has been operated through the Louisiana Department of Health and Hospitals beginning under the Bureau of Health Services Financing. In the 1980s management of the program was contracted to the LSU School of Dentistry, an arrangement which seems to be unique in the country. LSU is responsible for all aspects of the program except for processing final claims to be paid (done by the fiscal intermediary) and issuing payment (done through the state treasury). The consultants (faculty and former faculty of the school) handle prior authorization, program guidelines, appeals, provider training, and answer telephoned questions from providers and their staffs on a daily basis. Through a computer linkage with the fiscal intermediary, most prior authorization is granted on the day of receipt of the claim form.

Louisiana is one of only a few states in which 40% of the eligible recipients enjoy at least one dental visit annually. Louisiana is fortunate that the majority of dentists are not only enrolled as providers, but are active participants in the program. Many of the pediatric dentists in the state participate as well along with oral surgeons, periodontists, and orthodontists. In every parish (county) that a dentist is licensed, there is at least one active provider. Access has not been a problem. The presentation will focus on these and other efforts such as adoption of the ADA Claim Form and CDT procedure codes that Medicaid of Louisiana has undertaken to make participation in the program as "painless" for dentists and their staffs as the dental visits should be for the children. Louisiana hopes to build on its success, to allow other states to learn from both our successes and failures, and to learn from other state programs as well.

## **Husky Smiles: Dental Student Volunteers and Expanding Access to Care for Young Children**

M. George, J. Prebilsky, P. Domoto, P. Milgrom, P. Weinstein, L. Bingham, J. Caron, D. Oberg, C. Townsend, K. Sakuma, P. Robertson

Husky Smiles, a University of Washington School of Dentistry volunteer outreach program seeks to 1) improve the oral health of high-risk children and their families and to 2) explore issues of disparity among low-income and culturally isolated populations. This program, which has been developed and administered by dental students, has collaborated with the Supplemental Nutrition Program for Women, Infants and Children (WIC) in King County. Husky Smiles volunteers provide oral health services for WIC clients including assessments, toothbrushing instructions, topical fluoride applications and referral for comprehensive dental care. Additionally, paid summer research/externship positions and a school-wide lecture series have been developed to ignite and cultivate individual and group exploration of topics such as population based children's oral health and the role dentistry in our community. More than 85% of the dental students at the University of Washington have participated in Husky Smiles. Students who have completed specialized training provided by faculty have completed 18 sessions to 5 area WIC clinics since the initiation of the program in early 1999. Under the supervision of dentists, students have provided the services listed above to more than 250 children, mothers and pregnant women. We anticipate an expansion to 25 WIC sites and service to over 4,000 children and their families by the end of the year 2000. Husky Smiles has created a passionate team of students, dentists, organizations, coalitions, and foundations with the common goal of improving the quality of life of children in the state of Washington through expanding access to preventive dental services.

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Creating Oral Health Prevention and Treatment Programs in Low  
Income Urban Areas: A Process Evaluation.

Richard Diamond, DMD, MPH and Eugene Litwak, PhD

*Objectives:* To assess organizational factors (barriers & facilitators) effecting the creation of the Community DentCare Network's (CDCN) prevention and treatment clinics in two neighboring low-income communities of NYC. The number of children eligible for Medicaid in these communities ranged from 60% to 80%.

Washington Heights(WH) is predominately Latino (67%), with an expanding population. Central Harlem (CH) is predominately African/American (69%), and a declining population.

*Method:* Interviews with Columbia University's School of Oral & Dental Surgery and Public Health faculties, CDCN staff, public school principals, heads of community based organizations, and other community leaders.

*Screening Results:* Dental emergencies were 11% in WH and 19% in CH compared to the national average of 5%. Sealants present on teeth were 5% in WH and less than 1% in CH compared to an 18% national average. Untreated caries were 49% in Washington Heights and 54% in CH as compared to 38% nationally.

*Conclusions:* Critical organizational factors were found to be: (1) shifting the curriculum and faculty of the dental school to prioritize community services goals, (2) recognizing that outreach must be customized to each community's history and present circumstances, (3) integrating oral health services into general health services, (4) understanding that philosophies of the host institution effects the administration of dental clinics; e.g., the educational philosophy of public schools staff, and (5) having staff who can master changing funding sources.

## **Role of Dental School Clinics in Meeting the Oral Health Needs of Children**

N. Karl Haden, Ph.D

Dental schools provide a critical service in meeting the oral health needs of children. In the spring of 1998, the American Dental Association, with the cooperation of the American Association of Dental Schools (AADS), conducted a survey of U.S. dental schools to obtain descriptive information about the operation of satellite clinics (off-site clinics and hospitals and community facilities) used by the dental schools in providing clinical experiences for their pre- and postdoctoral students. A similar survey was sent to dental societies within the patient catchment area of the dental school. The dental school response rate was 92.7%. It was 77.8% for respective dental societies.

Survey findings indicate that dental schools on average use three satellite clinics and that one-third of the schools plan to add new clinics within the next three to five years. Almost 50% of the patients treated in the satellite clinics were covered by public assistance; patients self-pay was limited; and the majority of patients were treated within their own neighborhood. Over 41% of the patients in all the satellite clinics were under the age of 14. Satellite clinic revenue was the most common funding source (62%) for continued clinic operation, followed by dental school operating budgets (45%). Almost 39% of the clinics received operating funds from the state; 21% received federal grant support.

The AADS Center for Educational Policy and Research will use these findings and recommendations to create and foster partnerships between dental schools, dental societies, and satellite clinics that will improve children's access to oral health care and prepare dental students for their responsibilities to meet the health and oral health needs of children.

# **The Workforce Shortage in Pediatric Dentistry**

Davis MJ\*

Since the late 1980's the United States has experienced a shortage of pediatric dentists. That shortage has reached crisis proportions. Pediatric dentists are not being replaced at the rate at which they leave practice. Roughly 4,200 pediatric dentists are active in the United States. The American Academy of Pediatric Dentistry's (AAPD) five person Task Force on Workforce Issues has produced an initial "White Paper" on the key issues with supporting data and recommendations. The key issue is the insufficient number of training positions to create new pediatric dentists. The applicant pool is excellent, second only to Orthodontics in numbers. Private practice associateships and partnerships and academic positions are going unfilled in unprecedented numbers as recent graduates open new practices and enjoy excellent success. Current estimates are that only 30% of children who access any oral health care are seen by a primary care specialist in Pediatric Dentistry. By 2020, the number of children under 18 in the U.S. will increase by 8.1 million. Since pediatric dentists are first and foremost concerned with advocacy for children, their total well-being and, particularly, their oral health status, a decrease or lack of growth in the numbers of pediatric dentists bodes poorly for access to care for medically complex or disabled children or those with extensive treatment protocols. Pediatric dentists through organizations like AAPD and the American Society of Dentistry for Children (ASDC) are the vocal presence in Washington, in state capitals, and with foundations seeking improved access for children. A static or decreasing number of pediatric dentists is unacceptable.

## **An Infant Oral Health Educational Program for Underserved Children**

C. Nurko, L. Abadeer, and H.F. Thomas

The objectives of this program are: To promote perinatal and postnatal oral health education, to identify those children with early signs of Early Childhood Caries (ECC) and those with high risk factors to ECC, to intercept and modify detrimental feeding habits, to optimize fluoride exposure, and to increase the training and exposure of dental students and postdoctoral pediatric residents to very young children and their mothers.

The Department of Pediatric Dentistry at UTHSCSA has developed an Infant Oral Health Educational Program at a Women, Infant and Children Clinic (WIC). A questionnaire and a consent form were developed in both English and Spanish. Descriptive statistics from 370 questionnaires to define the population attending the WIC revealed: The population is predominately Hispanic (92.8%), in an area where the water is not fluoridated and over 90% of the parents have incomes below the poverty level. The infants ranged in age from 3 weeks – 16.5 months. Seventy eight percent of the children were not eligible for financial assistance. Most of the infants were bottle-fed (90%) and 71% went to bed with a bottle. Sixteen percent of the babies were born prematurely. Thirty six percent of the mothers were single and forty percent of the mothers have not visited a dentist in the last five years.

This ongoing educational program is recommended to be combined with an Oral Hygiene program for mothers and a Fluoride Varnish program for children. A longitudinal follow-up will prospectively evaluate them as a means to prevent ECC in this population.

## **Community Dental Health Certificate Program**

\*Nancy McKenney, RDH, MS, Community Dental Health Course Director, Northeast Wisconsin Technical College (NWTC), Green Bay, Wisconsin; Dr. Jerry Stepien, Instructional Design Specialist, NWTC; Advisors: Deborah Hardy, RDH, MS, Associate Dean; NWTC; Dr. Mary Lou Holloway, Dean, NWTC; Lori Weyers, MS, Vice President of Learning, NVVTC.

**Funding Source:** Eastern Wisconsin Area Health Education Center, Inc.

Community Dental Health Certificate is designed for dental hygienists or dentists who wish to practice in public health or community environment. Traditional education has prepared practitioners for private practice. This alternative expands opportunities to community-based care. Communities benefit through programs conducted by students who live near the community.

The first phase in the process was to convene a Developing a Curriculum (DACUM) panel. A DACUM is the cornerstone of curriculum development. The panel of experts in community and public health identified the responsibilities and function of their occupations. The entire curriculum links to this process, using the Wisconsin Instructional Design System (WIDS), lending validity to the program.

In 1999-2000, eight participants were admitted into the program. Four-3 credit courses are offered in weekend and alternative delivery format. Courses include: Public Health Basic Principles, Dental Public Health Principles, Public Health Communications, and Public Health Programs.

Program structure and delivery system affords students the opportunity to experience all phases of community-based program operation. Community-based settings are located throughout northeast Wisconsin. Students analyze community impact by identifying services offered and number of individuals served.

## **Adoption of Caries Prevention Technology in Dental Practices: The Caries Prevention Study.**

Michael A. del Aguila, David Grembowski.

Background: Washington Dental Service (WDS) has worked with academic researchers at the University of Washington (UW) since 1995 to understand the adoption of preventive services by general dentists in Washington State. In 1995 UW researchers surveyed a random sample of 200 dentists. Less than 50% of respondents reported using fluoride varnishes (32%), and dental sealants (40%). WDS instituted coverage for fluoride varnishes in 1996. In 1997, the same dentists reported that use remained below 50%.

Aim: The Caries Prevention Study is a randomized clinical trial with investigators from WDS and UW to assess the effect of an intervention to increase dentist use of caries-prevention techniques in children at increased caries risk.

Methods: The WDS data warehouse was used to identify dentists who treated 30 or more children aged 6-14 with capitation dental insurance in the previous year. Providers who consented to participate were randomized to standard care or intervention arms. All dentists are reimbursed for enrolling children and data collection.

Intervention: Intervention dentists received CDE credits for training in the use of fluoride varnishes and dental sealants, and business implications of providing these services to children at increased caries risk. These dentists receive additional reimbursement for using fluoride varnishes and sealants on study children.

Results: Nearly 50% of eligible dentists consented to participate. To date 244 children have been enrolled in both study arms and will be followed for 2 years.

Impact: This study will lead to a better understanding of strategies that increase adoption of efficacious preventive technologies.

- I. **Theme:** III: Ethics Laws, and health policies as tool to improve children's health.  
**Topic:** 6: Making prevention work: Existing challenges to science, policy, clinical care, and outreach.
  
- II. **Type of Presentation:** Health Services Research



## **Open Wide - Dental Hygiene: A Bigger Picture**

Norma Wells, Terry Ann Jankowski, Pat Brown,  
Joanne Gress, Virginia Brown, Jacqueline Juhl, Elise Tanner, Janice  
Talkov, Salima Alibhai, Veronica Bagshaw, Kathy Schaefer

The University of Washington Dental Hygiene Program teaches oral hygiene from a global perspective. UW baccalaureate degree completion dental hygiene students complete a year's curriculum founded on significant oral health problems and probable solutions within the context of specific communities. Health education, behavioral change, and community development models provide the foundation for study of environmental, political, economic, educational, and social determinants of health. Using a people-places-problems methodology, students research, analyze, discuss, and make evidence-based decisions in order to carry out community-based projects in five rural counties in Washington State. Further, students explore core values, ethics, laws, and issues related to care access, provider numbers, health promotion/disease prevention models, and healthcare delivery models. The aim of this presentation is to share innovative activities linked to education, government, social and service organizations, business, and local oral health coalitions whose missions are to improve oral health of children and families. These collaborative educational and community-based approaches educate practitioners who can work in an integrated health care system, involve dental hygienists in leadership activities, and bring new technology to children and families in need.