

# Chinatown Health Clinic

Allison Chan

## Background

Prenatal factors such as severe caries and periodontal disease have been cited to cause premature birth and low birth weight babies. In additions, severe caries and periodontal disease also increase the risks for infection and poor nutritional intake in pregnant women.

## Objectives

At the Chinatown Health Clinic, we have determined the best approach is a community-based project with strategic collaboration and partnership. Our objectives are as follows: (1) To prevent low birth weight babies. (2) To prevent premature birth and (3) To minimize problems for pregnant women during their third trimester.

## Method

In order to achieve the above goals, we created a healthcare delivery team, which consists of OB/GYN nurses, obstetrician, health educators, dentists and hygienist. This team has the shared values of delivering the message of preventive care to pregnant women and to optimize birth outcomes. The method used was to deliver one message to the entire team that will enable prenatal women to seek dental care. The time frame for our project was initially one year but the result was so positive that it was extended to three years.

## Impact

The programs success was measured by the positive feedback from patient after their delivery and when they come back during their subsequent pregnancy. Our hygienist and health educator noted the understanding of causes and effect of dental disease and the link to low-birth weight babies are well accepted. Prenatal patients also seek out dental treatment earlier during their subsequent pregnancy. In addition, more patients accept dental treatment after the initial oral exam.

## Leadership

The leadership consists of several members of the team such as the health educator, dental director and the OB/Gyn patient service manager. Communication to participant were through the health educator, OB/gyn nurse and our hygienist. The target population was pregnant women in their first and second trimester. There are no geographic boundaries but most of our patients are recent immigrant from China, Hong Kong, and Southeast Asia. They mainly reside in Manhattan Chinatown or Brooklyn

Abstract - #56

Melody Scheer

The purpose of the project was to provide an early intervention of fluoride varnish application and caregiver education to moderate and high-risk children in the 0-3 year old age group. Secondly, data on the age of mother at birth of the child was gathered to determine if teen motherhood was an additional risk factor for Early Childhood Caries. A questionnaire was given to the parent of each child being screened and treated in the fluoride varnish clinics. Each contained questions regarding mother's age at the time of baby's birth, birth weight, race and fluoride exposure. Fluoride varnish and individualized oral health education were provided at each appointment. A detailed caries history was kept of white spot lesions, decayed, missing, and filled teeth. The children were recalled on a monthly basis.

Two hundred and twenty-eight children enrolled in the Women, Infants and Children program were examined. Thirty-three percent had been affected by dental caries and 31% had untreated decay. The sample size of babies born to teen mothers was too small to draw significant conclusions. However, of the seven children sampled, six had at least one tooth affected by ECC. In an effort to screen a higher number of teen mothers, the screenings have expanded to teen parent programs at local high schools.

Given the high incidence of ECC and lack of dental access in this population, health professionals need to continue to identify all possible risk factors for this devastating disease and to develop effective prevention strategies.

## **Factors Affecting Oral Health Seeking Behaviors of Pregnant and Parenting Teens,**

Saewyc, EM, Cantrell, DC, White, N, Jinguji, L & Domoto, PK.

**Purpose:** In this study, adolescents identified barriers to dental care as well as characteristics of health care providers and of delivery systems that affect their decision to seek oral health care.

**Methods:** Focus groups were convened to explore the dental experiences and perceptions of 12 pregnant (n=6) and parenting (n=6) adolescents. An experienced focus group leader asked open-ended questions to generate discussion about prior experiences, knowledge, and barriers to care. Audio-tapes and field notes were used to record the interactions during the focus groups.

**Results:** Preliminary findings indicate participants view dental care as a part of overall health care and they desire good oral health for themselves and their children. However, they perceive system, provider, and patient barriers to obtaining and receiving care. Trust and caring were primary issues; adolescents who have had bad experiences do not view the dental profession as caring about their human needs. They suggested the following ways to improve the delivery of care: partner with prenatal care, treat patients with respect, improve oral health teaching methods, improve appointment and reminder systems, decrease waiting times for appointments, improve clinic environments, and make dental care less traumatic. The data collected from the focus groups suggest the need for future patient-focused protocols and for interdisciplinary research to determine appropriate and effective interventions for pregnant and parenting adolescents.

**Conclusions:** Pregnant and parenting teens have a wide range of dental experiences and knowledge, which shape not only how they seek care but how they care for their children's teeth.

## **Service, Teaching and Research: Community-Campus Partnerships in Rural Washington Counties**

P. Weinstein, P. Domoto, P. Milgrom, G. DeForest, G. Stewart, D. Smolen, M. Sutherland, A. Spadafora, E. Skaret, T. Kaakko

Local health professionals and community leaders allied in Community Partnerships in rural Cowlitz and Lewis Counties contacted UW to help meet the needs of low-income children. The communities organized screening/treatment clinics for young children (<4 years) and their mothers in church and school settings. They were treated with fluoride varnish and glass ionomer fillings by UW faculty and students. Minimal equipment was needed, as children were examined in chairs and on floor mats. Health education was also provided and follow-up care was arranged. Since 1997, 247 yearly child visits have been recorded in Cowlitz and 116 in Lewis County. A total of 121 mothers with symptoms or those reporting serious dental needs were also examined and triaged, with 12 women receiving IV sedation at UW. In 1999 a large health care provider donated its dental clinic and auxiliary staff. Seventy-nine adults and 46 children were examined and treated by UW faculty and students. Clinic sessions are scheduled for 2000. Three research studies have also been launched. One study assessed the effect of xylitol in various products on the microflora of school children. The second is assessing the effectiveness of fluoride varnish vs. placebo on children, beginning at 6 months; the varnish is applied by nurses in pediatric offices. The third involves examination by local dental personnel, trained by UW faculty, of all K-12 children enrolled in the free lunch program in 3 Lewis County school systems.

## **Oral Health Demonstration Project: Access and Utilization of Oral Health Services**

Mark L. Wagner D.M.D., Mark D. Macek, D.D.S. Dr.P.H.

As a result of legislation passed in the 1998 Maryland General Assembly SB690, mandated increases in utilization rates were accompanied by the call for demonstration projects for high risk children who were to be included in the new Health Choice Program. The demonstration project addresses ongoing strategies to increase access to dental care for two targeted areas in the state, one urban and the other rural. Efforts of the project are directed toward increasing the dental provider base and increasing the awareness of the recipient, high-risk children and pregnant women to utilize these services. To accomplish these strategies a local project director and community out-reach coordinator for each of the two designated regions are responsible for working with the managed care organizations who administer the Health Choice program, local dentists, local community; agencies, schools, and recipients. Alliances with the above mentioned groups result in round table meetings, health fair presentations, focus groups, dental society interaction and other networking to address the dental care access issues. These issues include encouraging more dentists to become providers to this population, education of parents, school personnel, and other child care providers. In prevention and identification of early dental disease and utilization of oral health services through case management. Barriers include historic antipathy toward managed care, and the old Medicaid programs by dentists and lack of knowledge of the new programs by all participants.

## **A Partnership to Promote Oral Health of Young Children in Detroit**

Diane C. Hoelscher, D.D.S.

Early childhood caries (EEC) affects the oral and overall health of children. Many social and economic barriers contribute to development of this preventable disease. Faculty of the University of Detroit Mercy School of Dentistry partnered with the Village Health Workers of Detroit (VHW) to develop a program to prevent EEC. The VHW are a group of lay health advisors (LHA) based in the Detroit Health Department who use existing social networks to provide underserved urban populations access to health information. Objectives of this pilot program include: determination of the effectiveness of LHA in promoting oral health of young children and evaluation of the costs and feasibility of a long-term collaboration. Faculty contacted representatives of VHW and developed a training program for LHA on promoting children's oral health. LHA met with mothers of young children (under 3 years) to discuss oral health practices and provide information. Informal qualitative evaluation of program feasibility was conducted with LHA participants. LHA were receptive and confirmed a need for this program. Information presented during training was perceived as new and valuable. LHA view the program as feasible, however survey and consent components of a concurrent study significantly impacted participation. Cost for this program is minimal as it utilizes an existing program. Time from development to implementation was six months. Preliminary findings confirm that even informal interactions with LHA lead to sharing of valuable information. This program appears to be feasible, however, further study is underway to confirm its efficacy as an oral health promotion model.

## **Pasco County WIC Nutritionists Sink Their Teeth Into ECC Prevention**

C. H. Lawhead

The Women, Infants and Children Program (WIC) is a potential gateway to many health and social services, community nutritionists have an enormous potential to impact the oral health of infants and children. Through Healthy Start funding a community-based, comprehensive, multi-disciplinary early childhood caries (ECC) prevention program was developed. This project is a joint effort between the Pasco County Health Department, Healthy Start Coalition and the University of South Florida. The target population is Healthy Start and WIC-eligible women and/or infants and children up to three years of age. The program objectives are to: 1) increase awareness of ECC among the target population; 2) educate health care providers on the identification and prevention of ECC; 3) educate caregivers on good oral practices for their children; 4) encourage the exchange of baby bottles for “sippy cups” for children at 12 months; and 5) provide dental referrals for eligible children. Community nutritionists, using social marketing strategies, developed a dental awareness campaign that included provider information, training and materials; a logo for county ECC awareness program and printed materials. The utilization of nutritionists who perform initial ECC screenings, identify potential oral health problems, make appropriate referrals, and educate caregivers on nutrition and oral health, make this a unique health promotion and disease prevention model. This presentation will discuss the collaborative efforts between nutritionists and health professionals in tackling the challenges of ECC and the potential impact WIC can make in oral health.

## PERIODONTITIS AND PRE-TERM LOW BIRTH WEIGHT RISK IN PREGNANT WOMEN.

S. Lieff\*, H.Jared, R. McKaig, W.Herbert, A. Murtha, K. Moss, M. Worley, F. Smith, M Black, P. Brown, J Beck, S. Offenbacher. University of North Carolina at Chapel Hill Center for Oral and Systemic Diseases and Duke University Medical Center

**Objective:** Disparity in rates of preterm low birth weight (PTLBW) among various ethnic and racial groups is a significant public health concern. Recent evidence supports a link between periodontitis and adverse health outcomes including PTLBW, (<37 weeks, < 2500 grams). Oral Conditions and Pregnancy (OCAP) is a 5 year prospective study designed to evaluate the contribution of periodontal disease (PD) to PTLBW.

**Methods:** Women seeking prenatal care at a university-affiliated medical center are enrolled prior to 26 weeks gestation; those with multiple pregnancies, HIV/AIDS, diabetes, chronic hypertension are excluded. Measures of PD are determined upon enrollment and again at delivery. Detailed medical and obstetric data and biological samples are collected for analyses.

**Results:** During months 1-18, 71 % of eligible subjects agreed to participate. Data on 201 deliveries show a racial distribution of 56% African American, 38% White and 6% other races. At enrollment, 18% had PD ( $\geq 4$  sites with pockets of 5+ mm). However, 29% of African American women as compared to 6% of white women had this level of disease. Overall, 43% had PD progression ( $\geq 2$  sites worsening by 2+ mm). Nearly 19% of the study population gave birth to PTLBW infants. Preliminary unadjusted risks for PTLBW among women *with little or no disease at baseline* and delivery was 11% but increased to 25% among those whose PD progressed during pregnancy. Risk among those *with PD at enrollment* experiencing no progression was 16% as compared to 47% for women whose disease progressed.

**Conclusions:** Initial results suggest an association between periodontal disease and PTLBW and point to periodontal disease effects both at baseline and during the pregnancy. Inclusion of oral health promotion efforts prior to and during pregnancy should be considered.

Supported by NIDCR DE-12453.

## **BRUSH FOR TWO PUBLIC EDUCATION CAMPAIGN**

Brush for Two is a partnership between Optiva Corporation, maker of the Sonicare® sonic toothbrush, and the National Healthy Mothers, Healthy Babies Coalition (HMHB). Its objectives are to:

Raise awareness among expectant mothers that maintaining good oral health can help reduce the risk of preterm and low birth-weight babies; and

Encourage expectant mothers (and women planning to become pregnant) to visit a dental professional on learning of their pregnancy.

Working together, Optiva and HMHB will create a variety of materials that will convey simple, easy-to-understand messages about the importance of oral health during pregnancy. These messages will be personally delivered to the target audience through community outreach workers, and indirectly through materials distributed to HMHB member organizations and Optiva's own dental professional network. An aggressive media relations campaign will also help raise awareness among the general population.

Optiva and HMHB are conducting a benchmark study to measure awareness of the connection between oral health and preterm, low birth-weight babies among women of childbearing age. A second study will gauge the numbers of pregnant women visiting dental professionals during their pregnancy.

The expense for the development of this program as well as the production and distribution of its materials is being funded entirely as a public service of Optiva Corporation.

**The Effects of Periodontal Disease Intervention on Pre-Term Low Birthweight (PTLB) in Pregnant Teens.**

Dennis A. Mitchell-Lewis, Ira B. Lamster, Panos N. Papapanou, John T. Grbic, Steven Engebretson.

This study explores the role of chronic inflammatory periodontitis in the pathogenesis of PTLB in young women at the School for Pregnant and Parenting Teens in Central Harlem receiving oral health services through the Community DentCare Network of Columbia University. To date, clinical and demographic data have been collected on 195 young women, 59% African American, and 40% Latino, 12-19 years old, all of low socioeconomic status. Preliminary data reveal a significantly higher prevalence of oral disease among these women compared to national figures of women of corresponding age. Furthermore, subgingival microbial plaque samples were obtained from 97 of the young women and analyzed by checkerboard hybridizations with whole genomic DNA probes with respect to 12 bacterial species. PTLB women had significantly higher mean bacterial levels of *B. forsythus* ( $p < .0001$ ), *T. denticola* ( $p < .01$ ) and consistently elevated counts for the remaining species. Birth outcome data are available for 130 women, 45 whose periodontal status was assessed during pregnancy and received periodontal treatment and 85 who were examined post-partum and received no treatment prior to giving birth. Clinical data revealed no baseline differences in plaque, calculus, bleeding or microbial levels of subgingival bacteria between the women who received treatment and those who did not. However, PTLB occurred in 18.8% of the women who did not receive treatment (16 cases), but only in 6.7% (3 cases) of the women who did receive treatment (chi-square,  $p = .062$ ). These preliminary data suggest that periodontal intervention in young pregnant women may substantially reduce the risk for PTLB. Supported by NIN grant# MO 1 RR00645-26S2.