

Dental Public Health Activity Descriptive Report

Practice Number: 06005
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SECTION I: PRACTICE OVERVIEW		
Name of the Dental Public Health Activity: Oral Health During Pregnancy and Early Childhood		
Public Health Functions: Policy Development – Collaboration and Partnership for Planning and Integration Policy Development – Oral Health Program Policies Assurance – Building Linkages and Partnerships for Interventions		
Healthy People 2020 Objectives: OH-1 Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth OH-2 Reduce the proportion of children and adolescents with untreated dental decay OH-3 Reduce the proportion of adults with untreated dental decay OH-7 Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year OH-8 Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year OH-14 Increase the proportion of adults who receive preventive interventions in dental offices		
State: California	Federal Region: Region IX	Key Words for Searches: pregnancy, oral health, prevention, perinatal, early childhood
Abstract: In February 2009, the California Dental Association Foundation (CDA Foundation) and the American College of Obstetricians and Gynecologists held the California Perinatal Oral Health Consensus Conference to develop practice guidelines to assist medical and dental professionals in providing appropriate evidence-based oral health care to perinatal populations. Upon completion of the guidelines, a dissemination process systemically shared the guidelines with healthcare professionals and community organizations involved in the care of pregnant women and young children. The dissemination of perinatal oral health guidelines to medical and dental team members is an important step in improving the oral health of pregnant women and creating a foundation for achieving optimal oral health in their children.		
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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The goal of this project was to substantiate the relationship between health and oral health status, and promote the importance and safety of dental care during pregnancy.

Good oral health is a vital component of health status for the population at large; and oral health care is particularly important as a preventive strategy in the health of infants, young children, new mothers, and women who are pregnant or plan to become pregnant. However, it was revealed that significant disparity of opinion regarding the appropriate type, timing, and frequency of professional oral health services for women during pregnancy existed.ⁱ Guidance was needed in areas such as the safety and timing of treatment interventions, radiographic exposure, and pain management for women during, before and after pregnancy.

Without widely accepted guidelines, providers lack evidence-based guidance on which to make the best decisions for their patients and often express concern about the liability of providing treatment to pregnant women. As a result, many women do not receive oral health services that would benefit their health and pregnancies, a disparity that is even greater for women who lack insurance or a dental home prior to becoming pregnant. Recent studies by the California HealthCare Foundation report that Medi-Cal (California's Medicaid program) covered 46 percent of births in the state.ⁱⁱ Only 19 percent of enrolled pregnant women received any dental services during pregnancy.ⁱⁱⁱ

In 2006, the New York State Department of Health released "Oral Health Care During Pregnancy and Early Childhood Practice Guidelines", which were developed from an expert panel that reviewed available literature and developed consensus; however, they did not engage dental and medical providers, as represented by professional organizations, in the process. The document served as a starting point for a panel of experts to revise recommendations based on literature published after 2005.

Earlier studies showed conflicting evidence regarding the association of maternal periodontal disease and adverse pregnancy outcomes such as preterm birth and low birth weight, while recent random controlled studies have not. There is clear evidence that ensuring that pregnant women and new mothers are free of active caries reduces incidence of tooth decay in their infants and young children. Studies show that mothers are the main source of transmission of Mutans Streptococci to their infants.^{iv} Reducing the bacterial load in mothers and teaching them preventive measures such as avoiding saliva-sharing behaviors reduces the risk of infection in their children.^v Because dental caries is the single most common chronic disease among children, and the incidence of tooth decay is more than twice as high among California children as the U.S. average^{vi}, these harm reduction efforts could have broad implications for the health and wellbeing of infants and children.

There is growing evidence that providing comprehensive oral health care to women before, during and after conception improves pregnancy outcomes and reduces early childhood caries. However, in order to translate this evidence into clinical practice, it was necessary that agreement be reached among dental and medical professionals in order to educate their peers. The development of Oral Health During Pregnancy & Early Childhood: Evidence-Based Guidelines for Health Professionals began in February 2009, when an expert panel of medical and dental professionals presented a review of scientific literature and recent research to a group of state and national medical, dental and public health experts and organizational representatives brought together through a collaborative process by the CDA Foundation and the American College of Obstetricians and Gynecologists, District IX. For the twelve months following the conference, the panel of experts and the project's advisory committee worked to derive practice guidelines based on evidence and professional consensus. Where possible, the material was adapted and updated based on the 2006 New York State Department of Health publication.

Justification of the Practice:

See above

Inputs, Activities, Outputs and Outcomes of the Practice:

Various groups were assembled to facilitate the development of the Guidelines and provide topic-specific expertise. Supporting documents are included to list members of each group.

Co-Chairs: Two co-chairs, representing both the medical (ob/gyn) and dental professions, were responsible for facilitating meetings of the Advisory Committee and leading discussions around selection of topics and Expert Panel presenters.

Advisory Committee: responsible for overseeing the development of the clinical practice guidelines. The Advisory Committee was responsible for determining subject areas for the expert panel to address and to create a format for draft guidelines. They offered input on the recommendations set forth by

the Expert Panel and considered feedback collected from the Stakeholders during the conference. In essence, they were the “reality check” to ensure that the guidelines would be accepted by the general practitioner. The Advisory Committee was ultimately responsible for approving the guidelines and contributing to the consensus statement. Committee members served as the doorway into the organizations they represent to assist with the dissemination of the completed guidelines.

Expert Panel: subject-matter experts charged by the Advisory Committee to present the latest evidence and published studies related to perinatal oral health. Based on this evidence, Expert Panel members recommended clinical guidelines and presented to the Stakeholder group during the consensus conference.

Technical Writer: CDA Foundation contracted with a technical writer for the development of the written guidelines. The technical writer attended all meetings of the Advisory Committee, who served as reviewers of the document to be published.

Stakeholders: representatives from a wide variety of organizations attended the first day of the consensus conference to hear presentations from the Expert Panel and react to clinical recommendations. Stakeholders included representatives from public and private practice, dental and medical schools in California, health advocacy groups.

Program Director: employed by CDA Foundation, was responsible for the overall management of the project, including budgets, subcontracts, travel, conference planning, collateral design and communication with funding partners.

Objectives:

1. Identify the evidence base for the relationships between oral health status, treatment of oral disease, and pregnancy outcomes by engaging an expert panel of medical and dental professionals to review the scientific literature.
2. Derive clinical practice guidelines on the basis of evidence and professional consensus.
3. Disseminate to the medical and dental community the evidence base for the relationship between the transmission of maternal oral bacteria to their children and early childhood caries.
4. Disseminate the final Guidelines to encourage acceptance and usage by medical and dental professionals.

Early in the development process of the Guidelines, it became clear that policy implications needed to be considered as well. In order to keep the Guidelines purely evidence-based, it was decided to separate the policy considerations and create a policy brief. This work product was not considered in the original project budget or work plan, but was completed in conjunction with the Guidelines.

Lessons Learned and/or Plans for Improvement:

A project of this scope provides an environment where many lessons can be learned. Future endeavors could benefit from the experiences encountered during this project.

- Clearly define the roles of all stakeholders in the project (chairs, advisory committee, etc.). Initial definitions of the roles may change as the project takes shape – it would be prudent to periodically evaluate each party’s role and agree to modify when necessary.
- Plan for unexpected delays in the project timeline. External review by parties outside of the project’s advisory committee may prove to be advantageous and will provide insight that may have not been considered. A focus group process that involved the intended audience for the guidelines was a very valuable exercise that was not originally planned.
- Be sure to assemble a balanced team that includes academia and practice. This is a delicate balance to strike – the project must have the credibility of well-known researchers, and the practicality of a busy healthcare professionals.

Available Information Resources:

Guidelines, policy brief and patient education brochures can be found at:
www.cdafoundation.org/guidelines

SECTION III: PRACTICE EVALUATION INFORMATION

Demonstrated Sustainability

How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?

As the development process neared completion, several discussions were had among the advisory committee members about the "user-friendliness" of the document. The group agreed that the guidelines should be vetted among practicing dentists and physicians to gauge acceptance of the document and solicit opinions on dissemination. This was accomplished by facilitating four focus group sessions comprised of dentists and physicians, and the feedback received was extremely useful in the final design of the product.

The guidelines were published in February, 2010 with dissemination efforts immediately following. In addition, they were published in their entirety in the June, 2010 issue of the *Journal of the California Dental Association*. As a result of feedback received during the provider focus group sessions, Dr. Lindsey Robinson served as guest editor for the September, 2010 issue of the *CDA Journal*, which was dedicated to topics related to perinatal oral health. Topics included legal considerations, policy implications, application of the guidelines in clinical practice, messaging to pregnant women, and an obstetrician's perspective on dental care during pregnancy.

Overall, there has been much anticipation for the publication of these guidelines. Listed below are some of the organizations who have expressed interest in utilization and/or making the guidelines available to the public by posting the document on their website:

- First 5 county commissions –fund or collaborate with prenatal programs. (Among them are San Diego, Amador, Solano, and Glenn).
- American College of Prosthodontists - Dr. Charles Goodacre, Dean of Loma Linda School of Dentistry, requested permission to post the guidelines as a resource for their membership.
- American Academy of Pediatrics.
- Community Clinic Voice – the communication vehicle for the California Community Clinic Initiative, founded in 1999 to provide resources, evidence-based programming and evaluation, education and training to support community health centers and clinics.
- Children Now - a national organization for people who care about children and want to ensure that they are the top public policy priority.
- National Network for Oral Health Access - a nationwide network of dental providers who care for patients in Health Centers, and part of a Cooperative Agreement with the Health Resources Services Administration (HRSA).
- Numerous requests for printed copies of the guidelines have been received by Foundation staff from dentists, community clinics, and county health departments throughout California and over 20 states.

Collaboration/Integration

How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?

The most significant accomplishment of this project was the collaboration between dentistry and medicine to have meaningful discussions on the strength of current scientific studies and to reach consensus on appropriate care based on evidence and professional judgment. The project was fortunate to have a panel of experts and advisory committee who remained engaged throughout the process.

The advisory committee, composed of 22 members, was co-chaired by Ellen J. Stein, MD, MPH, FACOG, medical director of the Maternal & Child Health Section of the City and County of San Francisco Department of Public Health, and Jane Weintraub, DDS, MPH, chair of Division of Oral Epidemiology and Dental Public Health and director, CAN DO Center at the University of California, San Francisco.

Other members included representatives from: Albany Medical Center Women's Wellness Health Center, American Academy of Pediatrics, American Association of Public Health Dentistry, American College of Obstetricians and Gynecologists, Bay Area Centering Pregnancy Consortium, California Academy of Family Physicians, California Dental Association (Policy Development Committee), California Dental Hygienists' Association, California Department of Public Health, California HealthCare Foundation, California Nurse Midwives Association, California Society of Pediatric

Dentistry, California Maternal, Child and Adolescent Health, Dental Health Foundation, Massachusetts College of Pharmacy and Health Sciences, MediCal Dental Services Branch, New York State Department of Health, Philip R. Lee Institute for Health Policy Studies, UCSF Department of Family and Community Medicine.

ⁱ MK Shrout, BJ Potter, RW Comer, et.al, "Treatment of the pregnant dental patient: a survey of general dental practitioners." General Dentistry 1994;42(2):164-7.

ⁱⁱ California HealthCare Foundation. (2007). *MediCal Facts and Figures: A Look at California's Medicaid Program*. Oakland, CA: Author.

ⁱⁱⁱ California HealthCare Foundation. (2007). *DentiCal Facts and Figures: A Look at California's Medicaid Dental Program*. Oakland, CA: Author.

^{iv} Robert J. Berkowitz, DDS, "Acquisition and Transmission of Mutans Streptococci," Journal of the California Dental Association February 2003.

^v Heather Lynch, MD, and Peter Milgrom, DDS, "Xylitol and Dental Caries: An Overview for Clinicians," Journal of the California Dental Association March 2003.

^{vi} The Dental Health Foundation. (2006). *Mommy, It Hurts to Chew*. Oakland, CA: Author.